Northern Mine Research Society

Newsletter

Society established 1960

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Please note that the deadline for inclusion in the August 2019 Newsletter is the 20th July 2019.

Society News

News since February

At the time of writing this I am looking forward to our **AGM** which our Newsletter Editor has organised this year. This gives myself and Sallie a useful break. Reports are in and will appear on our website after the event, also any changes to Committee. Dr James Cleland has offered his services as Secretary for which we are very grateful. Indeed we are very fortunate to have so many enthusiastic and dedicated members on our Committee. A big thank you to all.

Our **Meet list** is now in full swing thanks to Mick Cooke who is already planning 2020 events with some leadership offers already in. Next month Rex and I are off to the Yorkshire Mineral and Fossil event at Leyburn with some of our publications and chance for a catch up with some of our more northern members. At the end of March I represented NMRS with a book stand at the Dales Archaeology Day at Giggleswick School. At this event I was ably assisted by my grandson Lewis Ashworth. July 27th and 28th sees our Society with a publications` stand at the North Pennines Mineral Expo. There is a flyer for the event elsewhere in our Newsletter. There is always an excellent turnout of members in St John`s Chapel and it is my favourite event of each year (obviously not counting our meetings!)

Please don`t forget we **award grants** for suitable projects. There are more details on our website and an application form is available. Our Committee usually work quite quickly to make decisions. Recent members to benefit include David Sables, Ron Callender, Peter Claughton, Alan Mills and Richard Smith.

Our former newsletter editor, Rob Needham has sent us a warning about **exploring in the Forest of Dean** where numbers of wild boars are getting out of hand. 400 has been suggested as a suitable number but it would appear numbers are now up to 1600. Unfortunately Rob`s dog was severely injured by a bite from one of these animals. There are reports of other dogs and dog walkers being attacked and young mountain bikers being chased. So if exploring the area please take care – it is not always the case of the boar defending their piglets, it can happen at any time.

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

Mr David Aldinton - Nelson
Dr Richard Belcher - Stockport
Mr Michael Bithel - Old Trafford
Mr Christ Buckingham - Carlisle
Mr Gavin Brett - Easingwold, Yorks
Mr Andrew Cassells - Ballymoney
Mr Alistair Clamp - Chopwell
Ms Ruth Codling - Norwich
Mr Anthony Cooper - Heston, Middlesex
Mr John Davidson - Lytham St Anne's
Mr Phil Edge - Stockport
Mr Matt King - Clayton le Woods
Mr Richard Lewis - Kings Lynn
Mr Michael Lightowler - Leeds
Mr Ted McAvoy - Earl Sterndale, Derbyshire
Dr Steven Ragan - Brampton, Cumbria
Mr Ian Robertson - South Shields
Mr Colin Robinson - Barnard Castle
Mr Paul Scargill - Burrowbridge
Mr Christopher Schofield - Wakefield

Mr Simon Woodhead - Amersham
Miss Laura van der Erve - London
Mrs Liz Withey - Carnforth

Since our Last newsletter we have been made aware of several **deaths**: Les Tyson who has written several of our publications and served on Committee for many years; Ken Makin who had been a member since 1971 and had been on many of our meets and was a regular at our meetings and Keith Snell. The latter was a subscriber in 2008 when I took over publications and having known him a long time I suggested he joined which he did. The publication records I inherited go back to 1987 with Keith as a subscriber then.

We reported the death of Jake Almond in our last newsletter and since then Dr F.W. Smith (himself one of our members) has written an interesting obituary about Jake for the Institute of Materials, Minerals and Mining. Here is the link to follow if you wish to find out more about his very interesting life: *https://www.iom3.org/fellowslounge/feature/2019/feb/18/obituary-dr-john-kenneth-almond-mimmm* Thanks to Alastair Lings for forwarding it.

Our Society members are not known for "blowing their own trumpets" so it was very pleasing to read about one of our members being awarded the prestigious **Peter Neaverson Award for Outstanding Scholarship** to John Barnett, for his book, "The Archaeology of Underground Mines and Quarries in England," published by Historic England. Congratulations to John. If anyone knows of other members who have gained awards please let me know so we can mention them in our future newsletters.

We really appreciate **donations of books and publications** which we receive. The library gets first call on these and if duplicates we sell them. You will see a short list of these books in this newsletter. Apart from one book the February list was a sell out. It is always a case of first come first served. Our meetings are also an opportunity for us to bring along books for our members to purchase. I would like to thank John Heaviside for his kind donation of some of our British Mining series received since the last newsletter.

Several of our members have asked about progress at **Queen Street Mill, Harle Syke, Burnley** so I am pleased to say it reopened in April and until 26th October 2019 it will be open on Thursdays, Fridays, and Saturdays 12pm-4pm. Unfortunately the ongoing chimney repairs mean they are unable to fire the boilers and put the famous "Peace" engine into steam. Also for public safety there remains an exclusion zone in place inside. Negotiations remain underway in the long term to identify a new operator so the future is not yet secure.

Finally for those of you who wish to access the **member`s area** of our website or have chosen to receive your NMRS newsletter online or are contemplating the move please remember if you change your email address you will need a new password via our webmaster before you can do either. For those former members renewing after April 1st they too will need to contact the webmaster to be re-installed. The member`s area contains more details of events, full reports of indoor meetings with officers` reports and minutes, newsletters dating back to the early 60s and our library list. Please note access to the online newsletter requires a different password to that for the members`s area. Please also note the earlier newsletter copy deadline for the August issue. Hopefully there should be monograph going out with it,

E mail: mansemins@btopenworld.com

Barbara Sutcliffe.

LIBRARY NEWS

My apologies to Simon Chapman. In the February Newsletter, I mis-credited the authorship of his book "Hob Hill Ironstone Mine". I am very sorry, there is no excuse, the error was due to carelessness on my part. "Hob Hill Ironstone Mine" is one of the Industrial Archaeology of Cleveland 'Cleveland Ironstone Series' to which Simon has contributed much. The Hob Hill mine was one of the smallest in Cleveland, there are no known photographs and finding the information for the book was a long, painstaking exercise. Today, much of the site is obliterated by a housing estate, but mine pitfalls and subsidence may be seen on the Hob Hill golf course.

Thank you to everyone who donates items to the library, and to James Cleland who is giving me a photocopier which is surplus to his requirements. This means that I will be able to respond more quickly to requests for photocopies from British Mining. (At the moment, photocopying depends on my going to Hawes library.)

Thank you to Richard Smith for David Johnson's "Quarrying in Cumbria" and Helen Harwood's "Staffordshire Coal Mines". These books were reviewed by Richard in the February Newsletter. Thank you to Steve Grudgings for the latest copy of "The International Journal for the History of Engineering & Technology", which includes more papers from his first Early Engines Conference. Another conference is planned for 2020. Thank you to Rex Cook for the most recent copy of "Down to Earth".

Issue 101 of "Archive" has arrived. There is an article on Pantygasseg Colliery. An article on steam engines at Kennetpans distilliery refers to local salt and coal industries. An article on the Caldon branch of the Trent & Mersey canal has information about iron works and about brass and copper works.

Sallie Bassham {Honorary Librarian}

NAMHO NEWS

According to the Carn Brea Mining Society Newsletter, "NAMHO has set up a system whereby anyone can subscribe to receive a personal copy of their newsletter." The 'subscribe' button is on the newsletter page of the NAMHO website. So if you wish to receive the NAMHO Newsletter, please 'subscribe' (no money required) direct with NAMHO. There were two newsletters in 2018.

Sallie Bassham {NAMHO representative}

May NMRS Book Donations for Sale.

Here are a few more books that have been kindly donated to us with permission to sell them on. Payment via cheque made out to NMRS.

Mining and Smelting in Teesdale by Harold L Beadle
Cleveland Industrial Archaeology Society 1980. A4 done on a gestetner 40pp with B/w photos and maps. £5 plus £1.60 p&p.

Lead Mining and Smelting in Swaledale & Teesdale by Shayler, Almond & Beadle. Cleveland Ind. Arch. Soc. 1979. A4 48 single sided pp done on a gestetner with b/w map, diagrams and photos. £5 plus £2 p&p.

The Archaeology of Mining and Metallurgy in South West-Britain edited by Philip Newman. Joint venture between PDMH and HMSSP. A4 168pp with lots of b/w photos, diagrams & maps. £9 plus £2.50 p&p.

Rhosydd Slate Quarry by M.J.T. Lewis & J.H. Denton. Published 1974 by the Cottage Press. P/b 100pp with illustrations, diagrams and maps. Nr Blaenau Ffestiniog. Spine a little worn. £5 plus £2 p&p.

Lathkill Dale, Derbyshire, its Mines & Miners by J.H. Rieuwerts. H/b with d/j Landmark Collector`s Library 1993. 112pp with colour & b/w photos, diagrams and plans. £8 plus £2.50 p&p.

The Copper King, Thomas Williams of Llandidan by J.R. Harris. H/b with d/j Landmark Collector`s Library 2003. 192pp with b/w photos. £4 plus £3.25 P&p.

The Coal Mines of Buxton by A.F. Roberts and J.R. Leach. P/b Scarthin Books 1985. 96pp with b/w photos & drawings. £4 plus £1.50 p&p.

Mines of the Gwydyr Forest Part 3 by John Bennett and Robert W. Vernon. P/b Gwydyr Mines Publications 1991. 141pp with b/w photos, illustrations and pull out map. £10 plus £2 p&p.

If interested in any of the above please contact Barbara Sutcliffe **email mansemins@btopenworld.com**

Remember we also have an extremely good selection of out of print BMs available both the very early A4 ones and the newer A5 ones. Why get a download when you can have a physical copy.

Barbara Sutcliffe.

Our Publications will be at the North Pennines Mineral Expo.

GEOFF HOLT

Geoff Holt has died at the age of ninety. He was one of the first members of PDMHS, and an enthusiastic and hard-working cave and mine explorer. Living in Sheffield, he did most of his work in the Peak district, and those wanting to read a longer tribute should consult PDMHS' Newsletter. However, he was predominantly an independent individualist, and most of his work was done with a small group of close friends. His name may not appear in many learned papers and he was not interested in personal fame; but others have (knowingly or otherwise) built on his explorations; and that we have so many underground features left is a tribute to his knowledge and his careful work. He showed me many interesting small mines, and had a vast knowledge and understanding of mining and engineering. He was kind and generous, and a loyal friend.

Sallie Bassham.

Ken Makin (1944 - 2019)

Ken was from Todmorden and died suddenly on 21st February 2019. A long standing member of NMRS , joining in 1971, he assisted Mike Gill with some early work. Ken started his mining enthusiasm earlier than most. As a teenager with friend Ralph Barker, they explored local coal and fireclay mines with only candles in a jam jar, even having underground sleep-overs, Ken's photo collection has unique early "Brownie" pictures of Todmorden Moor Mines.

A fireman by profession, mining became Ken's enthusiastic hobby the Nenthead area was a special favourite and weekly mining-themed walks throughout the Yorkshire Dales and Derbyshire. By the 1990s and 2000's Ken enjoyed annual trips to Cornwall and Devon, photographing all the surviving engine houses.

A keen collector of all things mining, he had books, miners lamps, tallies, mineral specimens and full runs of all NMRS and PDMS publications.

Ken had a remarkable sense of direction and recall of places. On recent NMRS coal mining field trips he surprised the group by instinctively remembering obscure tiny holes and adits from his youthful adventures, This local knowledge will be missed. Ken is survived by wife Alma and sons Mark and Ian.

Arthur Baldwin. Photograph Bernard Bond.

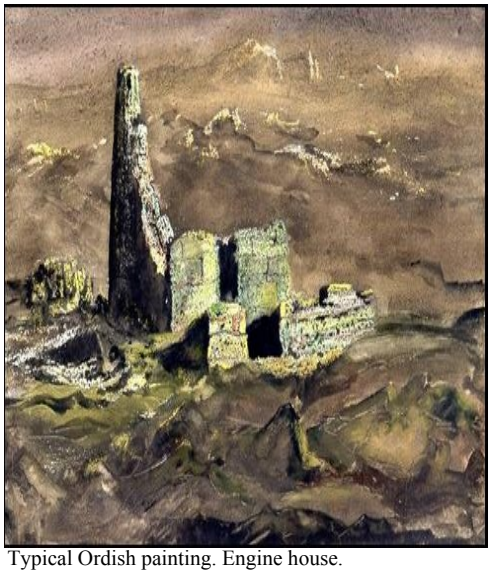

Geoffrey Ordish

Geoffrey Ordish {HGO}

Photographer and painter of Cornish Mining Landscapes

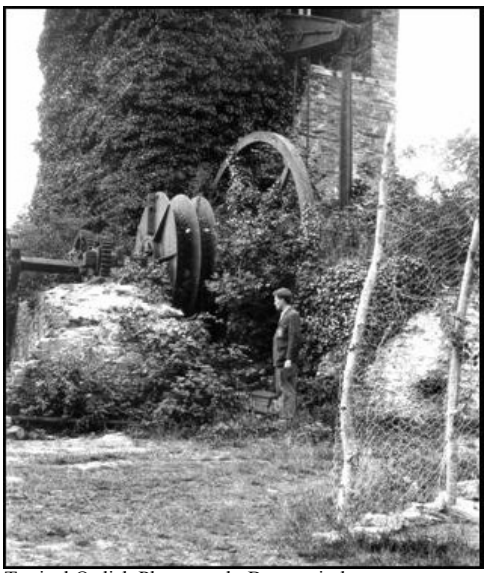
A considerable number of Carn Brea Mining Society members attended the preview of paintings by the famous engine house photographer H G Ordish at the Royal Cornwall Museum in Truro. The main purpose of the exhibition was, of course, to show to a wider public the paintings of Geoffrey Ordish, but there was also on display various photographs and other items belonging to him. We were welcomed by Geoffrey's son Mark Ordish who explained the workings of his famous father. Mark still holds all of his father's collection, although some photos are stored at the RCM. We were also welcomed by Amy Seymour, formerly of the CSM, who is now the Exhibition Organiser at the Museum in Truro.

H.G.Ordish was born in Hertfordshire in 1901. His first contact with Cornwall was during the First World War period, when on cycling holidays with his parents. He recalled staying at Perranporth, then a small working village, and being lulled to sleep by the rumble of water-powered stamps up in Perrancombe. The explosive works on Cligga Head were working overtime and each morning there was the spectacle of a primitive bus, packed to overflowing with workers, grinding up the hill from the village. In those days, West Cornwall must have seemed full of quite recently abandoned mines and many that were still working. To a scientifically minded boy with an interest in geology, all this was fascinating.


Typical Ordish painting. Engine house.

HGO went to Cambridge University in 1921 where he studied chemistry and developed his interest in Geology and Mineralogy. He became a keen motorcycle tourist, owning a series of Scott motorcycles over the next ten years, on which he travelled widely about the country. He generally had two visits to Cornwall each year, at first with motorcycling friends, later more as dedicated trips to visit the mines. He started photographing the mines in the late 1920s and later regretted the 'fatal delay' in not starting sooner, and with a better camera.

Although HGO's mother had studied art at the Royal Academy in the 1890s and had considerable artistic ability, her son showed no artistic leanings in his youth. HGO made his first attempts at painting in about 1927, and may have had some instruction from a Miss Bulkley, who was running a studio in St Agnes. These early efforts were in conventional watercolour technique. HGO took a job as science master at the new public school at Bryanston in Dorset. In about 1932 he bought a chain-drive Frazer Nash car, which proved very effective for many years and enabled him to explore all the mining districts in detail up until the Second World War. This was the period when he developed a passion for the Cornish landscape and for recording the mines with his Leica camera. Many of his excursions were in company with Kenneth Hamilton Jenkin who became a foremost historian on the West Country mines.


Typical Ordish Photograph. Beam winder.

During this period, HGO did a certain amount of painting, but in the 1940s, his style changed from bright and light, to darkly chaotic industrial scenes, before settling into the distinctive style, which was presented in this exhibition. He became more engrossed with painting in his fifties and continued working at it with great persistence till the end of his life at the age of 92. While the photographs cover all the mining districts and are always exact in time, place and detail, featuring engines, stream works, cliffs and seascapes, the paintings concentrate on the spiritual aspect of specific places. In the paintings, HGO attempts to capture the unique atmosphere he experienced in these places, where so much human skill, courage and sheer backbreaking labour had once been expended. Suddenly silent, as it seemed, the old mines stood in their own no-mans land, between their industrial past, and the hectic world of commerce and new technologies developing all the time around their isolation - technologies that will one day pounce and seize these isolated pockets of 'wasteland.' The apparent timelessness of some of the scenes has already proved illusory. Many acres have been redeveloped for modern industry; mine burrows have been removed, flattened and 'landscaped' engine houses have been demolished for one reason or another and the old mines make a smaller impact on the Cornish landscape than they did fifty years ago.

The exhibition portrayed Geoffrey Ordish's interpretation of the minescapes as he saw them; ivy encompassing remote chimney stacks, heather struggling for a foothold on arsenical burrows, delicate willows and birch sprouting from ochre stained pools. H. G. Ordish is a name very much associated with Cornish mining photographs. A selection of these was published as two volumes in the 1960s called "Cornish Engine Houses - A Pictorial Survey" and "A Second Pictorial Survey"

Roger Moss.

Cononish Diary

The author's view in 2010

Scotgold Resources' view in 2019

The reports flying around North Wales imply mining activity in the Clogau and Gwynfynydd gold mines, but there is no proof that the yellow metal is actually being produced. Britain's other gold mine at Cononish in Stirlingshire also claims to be active but then, they would say that ! Gold was successfully produced last year by installing equipment to recover gold from the spoil heaps of earlier days and after conversion into twelve one-ounce 'rounds', the sale price in auction averaged £4,557.90 per ounce … possibly a world record, if nothing else !

This year the emphasis is three fold:

* The provision of machinery for mining, and shifting ore and waste

* Making an adjustment to the agreement on the disposal of waste

* Prospecting for gold in other areas of the Scottish Highlands, which is known as 'The Grampian Project'.

The future looks good in view of the Scotgold CEO's recent 'glittering announcement' which ensured that two elite jewellers (one in Orkney and the other in Edinburgh) would receive the first refined batch of Scottish gold. This not as easy as it sounds. The Scottish Assay Office requires proof that the gold comes from Cononish, (either on trust … or by a snap site inspection), a sample from each batch is assayed in Edinburgh, a paper trail follows the sale of the gold to the two jewellers, and after designing samples that meet the approval of Scotgold, each finished item must carry a hallmark approved by the Assay Office.

There is, of course, a never-ending need for finance, but rugged-looking equipment has arrived at the mine entrance and this makes me hope real gold mining will start soon. Priority number one is to enlarge the main level, where I had a VIP tour, following a quartz vein, in 2010.

(Check the World Wide Web for more information on all activities.)

Ron Callender. **Feb 2019.**

Cefn Coed mining museum in Neath promised £250,000 boost

A mining museum that was branded a "dump" is to get a £250,000 boost from the local council to help turn it into a major tourist attraction.

Dismantled winding gear.

Cefn Coed Colliery near Neath - once the world's deepest anthracite coal mine - opened as a museum in 1978. But one councillor said it has always looked closed since its winding gear was dismantled and left to rust. Neath Port Talbot Council leader Rob Jones said the authority valued the mine's legacy and would invest in it.

The Welsh Government - which owns the site and leases it to the council - dismantled the listed 1930s structures in 2016 over safety concerns. Peter Rees, Neath Port Talbot's cabinet member for culture, told a recent council meeting the Welsh Government ought to clean the site up. "There's a lot of metal on the ground and it's just a dump," he said. Crynant ward councillor Sian Harris said in January the colliery always looked as though it was shut, as the winding gear had been left "in half and rusty". "We need the winding gear up so we can crack on with plans for the museum's future," she said.

Now, the colliery has been promised funding as part of the council's capital programme for 2019/20, according to the Local Democracy Reporting Service. Mr Jones said: "We do appreciate its strategic value as a tourist destination and we have committed to invest in that area. "We don't spend £250,000 lightly - this shows we are committed to the development of Cefn Coed."

The authority hopes the Welsh Government will also contribute towards a £1m investment plan to turn the museum into a "gateway" destination for tourism. However, the council is cutting its annual subsidy towards the museum's running costs from £50,000 to £45,000. Trade union leaders have claimed that cuts could put the museum at risk of closure.

The Welsh Government said it was in the process of procuring a suitably qualified contractor to undertake the restoration, and anticipated the work would get under way in March.

BBC Wales. Feb 2019.

Plan approved for £165m undersea coal mine creating 500 jobs

Plans to build a £165m undersea coal mine in West Cumbria have been given the green light.

A photographic impression of how the new West Cumbria Mining development would look on the former Marchon site.

The county council's planning panel today approved the project by West Cumbria Mining, which is expected to create more than 500 jobs and give a boost to the area following the collapse of the Moorside nuclear investment deal.

Coking coal will be extracted off the coast of St Bees, with a processing plant on the former Marchon site at Kells. Conditions have been imposed on the approval, meaning mine bosses would be asked to pay towards the road network, a cycle path as well and restoration work to former mine works as part of a raft of improvements to the area.

The mine had been due to go before the county council's planning panel last month, but the top tier authority said “outstanding issues” needed to be resolved before it could be put to members.

Times and Star. March 2019.

CHESHIRE SALT MINES

Even while salt was still being mined in Cheshire, the empty spaces were used for storing many things. The dry atmosphere is suitable for valuable documents, and the security makes the disused spaces valuable to organisations needing to store confidential material. Now former salt mines are being converted into gas stores. Also, at least one energy company is extracting salt by the old solution method to create new storage spaces.

The Guardian, 14th January 2019.

Work as a Timber Drawer

An unwritten rule of life down a coal mine was that if you came across someone struggling with a task, you stopped to help. Be he the mobile toilet cleaner and you the general manager, it was of no consequence. And so it was, on the return airway of No 9 face at Huncoat Colliery, Accrington, Lancs at 10 am on the day shift in 1958. The team of four, sixteen and seventeen-year-old desperados, the "timber drawers", were pushing their third bogey of the day, fully loaded with pit props and timber planks or 'bars' to the coal face. It was a half mile along an undulating tunnel, eight feet wide by seven feet high, that followed the progress of the seam, which advanced six feet per day.

The tunnel carried a steel track, three feet between the rails, on which ran the timber-bogey. The roadway followed the contour of the Upper Mountain Seam, which was generally level, but subject to periodic dips and rises. The dips, which could be eighteen inches to two feet, and perhaps persist for thirty feet, were known as "swillies". They filled with water, which quickly became stagnant and smelly. The seam had a quite high sulphur content, some of which leached into the water. As you tramped through it, the resultant odour was reminiscent of a public house lavatory on a Saturday night.

Added to this, our roadway, or 'bord' as it was known in Accrington, was the return airway, which carried whatever No 9 face threw-in, en route to the up-cast shaft. In the 1950s, health and safety had not yet been invented. The only check on air quality was the amount of methane gas, "firedamp" it might contain, prior to blasting.

We knew every inch of the way and as we pushed the fully-laden bogey up an incline towards a "swillie", knew that we needed to hold it back as it entered the dip. Of necessity, we were closely packed behind the load. Also we were of somewhat differing physiques. I was a stocky, five-foot eight, another one much slighter, one challenging six feet, but then an overweight specimen, who took centre slot. He was notoriously bad on his feet, particularly in wet conditions. As we reached the down-slope point, he lost his footing, fell sideways and took me with him. The bogey careered down the slope and skidded off the rails in two feet of water. A problem. The weight of the loaded bogey was such that there was no way we could haul it back onto the rails without unloading it. An onerous task, but one to which were accustomed.

So we formed a line, standing in the water and handing the props and bars, one to another, forming a pile of them on the inbye side. They were greasy and smelly. We had just struck our rhythm when the bobbing light of a cap lamp appeared from the shaft side, coming up towards us. As it approached we recognised none other than George Davies, the overman, or general foreman, who supervised three coal-faces, including ours. He was a tall, lanky character in his 50s who had never been accused of having a sense of humour. Having surveyed the problem, he berated us for being a bunch of careless young bas****s, took off his jacket and pitched-in to help. Having seen the offloading complete, he waited until we had put the bogey safely back on the rails. Satisfied that we were a functioning unit again, he wiped his grimy hands on his trousers, climbed back into his jacket and restarted his journey to the coal-face. As he left, he offered us this solace, "Just remember lads, it's better than working for a living."

A pseudo-benefit of working in water was that you could ask the foreman or 'fireman' – the statutory face supervisor, for a 'wet check', which enabled you to leave the mine before the end of the statutory 7¼-hour shift, as long as you had completed your job. Thus typically one-thirty instead of two-fifteen. It meant the pithead baths were quiet. At peak times it could be three men under a single shower head. We were typically wet up to our mid-calves with our boots, of course, sodden. Into our 'dirty' lockers went our underground clothes, to be dried overnight by the ever-circulating steam pipes. By Friday, after five days of ritual abuse, they were pretty unsanitary. Off they went home with you for your mother to wash. Such joys escaped my non-mining social friends, some doing A-levels, others enjoying clean surface apprenticeships. So, too, the weekly wage packet, which was handsome, plus six tonnes of free coal per year. It set young coal miners apart. Another story for another time.

David Hargreaves.

Sad news from Eckington Colliery

The year has started badly in North Derbyshire, where Eckington Colliery has been closed. It doesn't seem to have made the national news anywhere. The size of the unpaid electric bill seems to be the cause of the closure. Estimates vary widely but it is in the region of £100, 000 to £250,000 outstanding. Either way the Electricity suppliers have switched the power of.

So of the few miners still mining in the UK there is now another 38 ex-miners. Weather the mine can be saved remains to be seen but with this level of debt and more than likely others yet to surface it seems very unlikely at the moment.

Ayle Colliery Co. Ltd. Jan 2019.

Fantastic Research Tool Unveiled.

University of Cambridge reveals the changing face of the UK in aerial photos

A collection of aerial photographs described as the "historical Google Earth" has been made available online by the University of Cambridge. RAF pilots were asked to capture the bomb-scarred post-war period to the emergence of motorways and new cities. The collection dates back to 1945, with more recent images captured in 2009 for a university project.

Prof. Martin Millett said the images "let you travel back in time to a Britain which no longer exists". The Cambridge archaeologist added: "Anyone can go to Google Earth and look at modern satellite imagery - but this is an historical Google Earth. “No-one else in the world was doing this - it was genuinely world-leading."

Instructed by archaeologist J.K.St Joseph, the university borrowed RAF planes and pilots to take photographs until 1965, when it bought its own Cessna Skymaster. The plane, based at Cambridge Airport, travelled the length and breadth of Britain to capture high-resolution archaeological detail from the air.

The first 1,500 photographs from an archive numbering almost 500,000 are now available on the university's Digital Library website. Prof Millett said it had "cherry picked" some of the best and most beautiful photographs, including some very early colour photography. Oxford academic Dr. Robert Bewley, a world authority on aerial archaeology, described the collection as "internationally important".

He said St Joseph analysed RAF reconnaissance photos during the war and came to realise there was a "huge opportunity" to use similar "He chose former RAF bomber pilot Flt. Lt. Derek Riley - who had been an archaeologist before the war - to take him on his first trip," he said. “In those days you could fly where you wanted with few restrictions and that's exactly what they did."

The Department of Geography and Cambridge University Library are exploring potential plans to digitise the entire aerial photography archive. photos in archaeology and geology.

BBC News {Wales}. Feb 2019.

A cave diver who helped to rescue 12 Thai footballers and their coach has been awarded the George Medal by the Queen for showing "great courage".

Diver John Volanthen and his colleague Richard Stanton were the first to find the stranded team, which led to their eventual rescue last year. Mr Volanthen, 47, said he was "highly honoured" to receive the award. He said: "The biggest reward I could have was knowing all the children survived."

Mr Volanthen, from Long Ashton, near Bristol said: "We knew we'd find the children, but we didn't expect to find them alive. We saw the amount of rainfall and the type of flooding and it seemed unlikely anyone would survive." As well as being the first to make contact with the stranded footballers, Mr Volanthen also rescued three of the boys himself. He was part of a team of four divers who guided the sedated footballers through the cave system on their way out.

Who is John Volanthen?

Mr Volanthen as honoured in a ceremony at Buckingham Palace.

The 47-year-old diver is no stranger to rescues as part of the South and Mid Wales Cave Rescue Team. In 2010 he was part of a team which attempted to rescue a trapped diver in France, who was later found dead. For his work in that rescue, he received a Royal Humane Society medal at Buckingham Palace in 2012.

Mr Volanthen grew up in Brighton, and his love of caving began as a scout. He is a cub leader for the Long Ashton branch, near his current home of Bristol. He was also recently awarded the Bronze Cross, the scouting organisation's highest honour, for his role in the Thai cave rescue. Outside of his work he runs marathons and ultra marathons, once joking that he only does it "so he can eat more biscuits".

What is the George Medal?

The George Medal was introduced by King George VI in 1940, as a way to recognise brave civilian acts that were carried out away from enemy forces, and has been awarded more than 2,000 times. It is the second highest civilian honour after the George Cross.

BBC News. Feb 2019. {Edited}

Mining in Cornwall (The St. Erth Valley Mines)

A lifetime could be spent in the study of Cornish mining and still know only a fraction of it's history. It follows that this short introduction, can only give a flavour of the subject, but it is hoped that it will help in the understanding and enjoyment of the many industrial remains to be seen.

Cornwall is famous for its long history of mining Tin, but other important minerals such as: - Copper, Lead, Zinc, Silver, Arsenic and Uranium have been "won". From our history lessons at school, we remember the "Bronze Age", but as bronze is an alloy of Copper and Tin, and as Cornwall was one of the few places in Europe where Tin was to be found, then it's importance in mankind's history, is evident.

Origins of the minerals

The valuable minerals that have been worked in Cornwall had their origins in the molten core of our planet. There were occasions in geological time, when the molten material from within, pushed up through the surface rocks, to form features such as, Dartmoor, The Penwith Peninsular and smaller examples like Carn Brea hill and Godolphin and Tegonning hills. The molten granitic material was often accompanied by other valuable molten minerals that did not dissolve in the granite and so ascended around the granite. As the surface rocks were pushed up by the molten granite, they were baked and cracked. The molten minerals found that these cracks were an easier route and travelled up them until they cooled to such an extent that the minerals became solid. As different minerals have different melting (and freezing) temperatures, then the different minerals would become solid at different depths in the earth.

The important thing to remember, is that whereas coal was produced by plants and trees rotting and being buried and compacted with time into a horizontal seam, the minerals, in Cornwall, that come from the core of our planet, come up nearly vertically and mostly in much thinner deposits than coal.

Where the minerals came up to surface, then erosion over millions of years, broke up the rocks into a gravel and released the minerals from the rocks surrounding them.

Where tin had travelled to the surface in a crack in the surface rocks (a "Lode") and had been eroded and released by the weather into grains of Tin Oxide (Cassiterite), it was washed by rains into streams. The Cassiterite is a very heavy mineral and so it was inclined to sink into the bed of the stream, rather than be washed away like the lighter rocks and mud.

Early mining and "The Golden Fleece"

The early "Tinners" dug down in what had been stream beds until they found the cassiterite, but this was mixed with other gravel. To separate it, they washed the gravel in fast flowing streams. The lighter minerals would be washed downstream a good distance, whilst the Cassiterite being heavy, would sink rapidly to the stream bottom.

In order to recover the Cassiterite, a fleece from a sheep, or a grass turf, would be placed on the bed of the stream where it was predicted that the cassiterite would come to rest. The cassiterite would become enmeshed in the pile of the fleece or turf and thus impeded from being washed further downstream. When the fleece or turf was full of cassiterite, it was removed from the stream, dried and then burnt in a charcoal fired furnace until the fleece or turf was destroyed, leaving the tin metal to be run off into ingot moulds. This same method was used for the separation of alluvial (eroded gravel) gold in ancient times and is the origin of the fable of the Golden Fleece.

The tinners perfected the art of carrying out quick trials of the gravel deposits to discover the amount of cassiterite in it. They would put a small quantity of gravel into a shovel with a little water and swirl the shovel around with a special motion that caused the heavier particles of Cassiterite to be deposited at a different position on the shovel to the lighter and valueless gravels. This process is called "Vanning" in Cornwall and the similarity between this and the later American term of "Panning" for Gold is evident. In fact the methods used by the early American prospectors who were searching for the easily won Gold-bearing alluvial gravels were almost identical to the methods used by the Cornish tinners centuries before.

Early Lode Mining

After several centuries, almost all the workable deposits of alluvial Cassiterite had been exhausted but the miners knew where the Cassiterite had come from. Where the lode came to surface, it was often partially weathered and softened. The miners would dig out the softer parts and process them as before. One perpetual problem was that when you dig a hole deep enough, it fills with water! The simplest way of starting to recover the Cassiterite from the actual lodes was to look where the lodes were evident in the cliffs at places like St Just.

The next step was to tunnel in to the lode in the cliff face, at a height just above high tide mark. The tunnel (drive) would be arranged to progress slightly uphill so that any water percolating into it, would run downhill and out of the tunnel. As the lodes are nominally vertical, then the miners were able to excavate upwards and remove the lode above them up to near surface. A further problem was that the tin oxide won by lode mining was encased in a host rock. The miners therefore had to crush the lode material until it was fine gravel before they could separate the cassiterite from the waste materials. This early principle for the mining of lodes was also applied to valleys, where a drive was started from the bottom of a valley into a hillside where a lode had been exposed and then the lode worked in the hill above the drainage drive (adit) level. This method of mining was practised in the St Erth valley in the early stages of lode mining history.

Cont

Early Tin Smelting

To convert Tin oxide (Cassiterite) into Tin metal, the early method was to use a charcoal furnace with large bellows. This was called a "Blowing House" and several places of this name are to be found around Cornwall where these early smelters once existed. Charcoal was used as it is free of impurities and was readily available, there being no coal in Cornwall. In early times, there had been significant forests in Cornwall, but these were soon decimated in the pursuit of charcoal and the resultant soil erosion has ensured that these forests can not be recreated.

Soon the local haulage industry was in action importing charcoal from Devon. The Cornish roads were mud tracks, which were not maintained and were very difficult for wheeled vehicles in summer and virtually impassable in winter. The method was to use teams of pack mules of up to 100 animals for almost all transport. In later periods, the mules were imported from Northern France, where the largest female horses were mated with the sturdiest male donkeys. The horses were put into a partial pit and blindfolded!

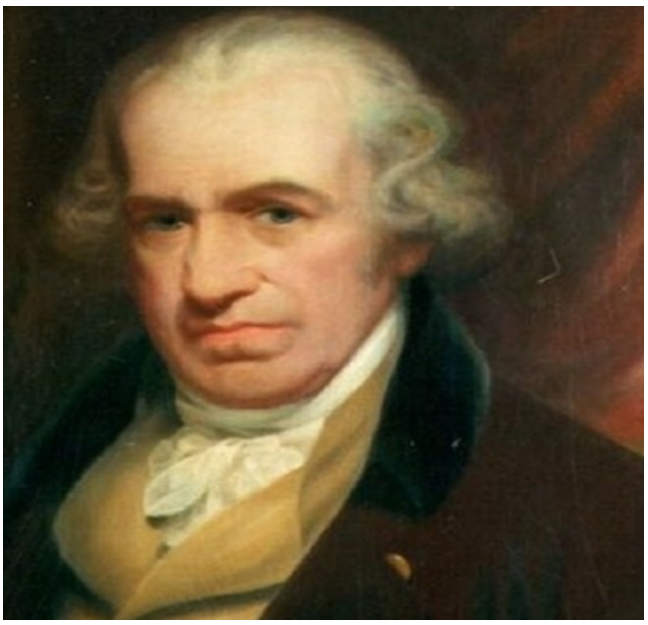
Deep lode mining

Having exhausted the alluvial Tin and then the lode Tin above water level, the miners looked at the Tin lodes that went down below the water level. These lodes could be worked if only the water that soon filled any excavation could be removed. The first methods were to sink a shaft rather like sinking a traditional well. A windless was erected over the shaft and a bucket was employed to raise the excavated material and the accumulated water.

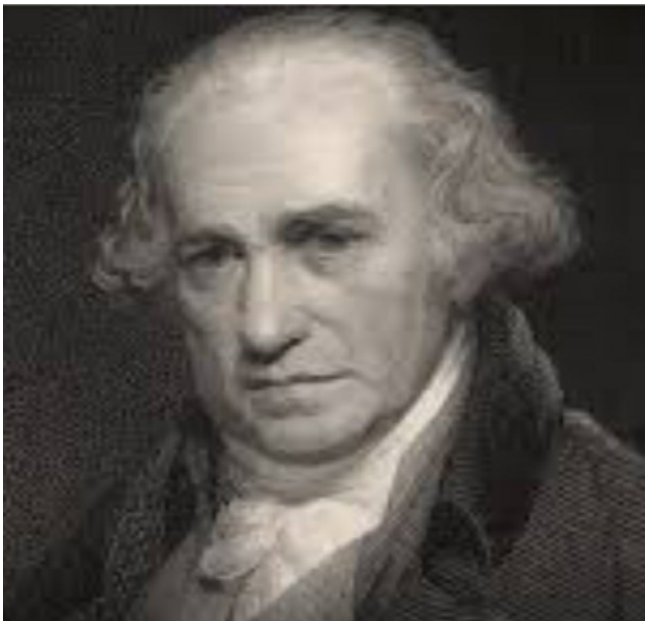
This method was good only for shallow workings, so further power was needed. Next a large windless machine operated by horses was erected near the shaft and a rope passed over a headgear erected over the shaft and down the shaft where it supported a larger bucket called a kibble. The weight of the rope itself becomes very significant when the shafts become deeper.

Where there was water power available, then waterwheels were employed to drive pumps and ore crushing machines, but when these available methods had reached their limit, there was an urgent need for a more powerful method of driving the machinery. The truly great inventor Thomas Newcomen devised a machine, which used fire to produce steam, the condensing of which, in an enclosed cylinder, fitted with a movable piston, could produce greater power. Newcomen's genius lay especially in that he devised a machine that could be produced using the existing crude manufacturing technology and yet still be reliable and functional. By contrast James Watt's later proposed improvements to the Newcomen engine were impractical and unworkable, until the great Iron master John Wilkinson invented a special machine tool that would bore a large cast iron cylinder to the accuracy required to allow the potential of the proposed Watt improvements to be achieved. Further significant developments to the steam engine and the pumping apparatus by Cornish engineers such as Trevithick and Wolf resulted in the evolution of a highly powerful and efficient machine that was in the very forefront of world technology in its day. As an indication of the development, the efficiency figures (Duty measured as millions of pounds of water raised thru one foot by one bushel of coal) were:- Newcomen engine 7 units, Watt engine 15 units Final Cornish design 65 – 85 units. These later world-renowned machines enabled mines to be worked up to 3000 ft deep.

To remove the lode material initially required men to beat chisels with hammers for many hours to achieve a small result, because of this tunnels were as small as possible and men had to be able to use the tools with both right and left hand equally well. Later gunpowder was introduced and holes are drilled into the rock and charged with explosive and fired. Hole boring was made easier with the introduction of boring machines but the early versions made so much dust that they were referred to as "Widow makers"



Thomas Newcomen



James Watt.

Richard Trevithick.

Cont

Industrial Development.

As the mines became deeper, they needed to utilise more powerful and expensive machinery both for the excavation of the ore and the separation of the cassiterite from the waste rock at surface. It became necessary for many small mines to combine into groups so as to share the expense and to benefit from economies of scale.

The need for greater financial input exceeded the ability of the local investors to support, so it became more usual for shares to be floated and traded on the London markets.

Large engineering factories were established to produce the engines for pumping, winding, crushing ore, rock drills, water wheels. Other concerns manufactured explosives, fuses, ropes, candles and smelted ore into metal.

A much greater volume of goods had to be transported. The steam engines vast appetite for coal had to be supplied from South Wales by a fleet of small sailing vessels. Instead of having to unload on beaches, new harbours, such as Newquay, Hayle and Portreath were constructed by consortiums of local businessmen. The North coast of Cornwall was most hazardous to navigate in the winter months, so supplies had to be stockpiled on the docksides in winter until the weather improved in the spring.

The difficulty of transport on land, led to the establishment of very early horse drawn railways to the major mines from Portreath, whilst the Cornish engineer Richard Trevithick made and demonstrated viable road and rail steam locomotives many years before Stevenson etc. It seems difficult to accept nowadays, that Cornwall's mining areas were once the most technologically advanced and highly industrialised places on earth.

The St Erth Valley.

Today's valley is a haven of peace and tranquillity. In the past it was alive with activity. There were medium sized mines along the valley and several large concerns just to the East of Relubbus Bridge. To the South was a run of mines From "Penburthy Crofts" on Long Lane running through to the mines of Marazion marshes.
The riverside track was the local M1. It was the main supply lifeline from the docks at Hayle carrying in coal, rope, explosives, timber and the many day to day mining requirements. The 100 strong pack mule trains, returned with tin ore for smelting in Cornwall and large volumes of Copper ore, from the mines East of Relubbus Bridge, which needed to be shipped to South Wales for smelting. East of Relubbus Bridge were extensive water wheel driven banks of large mechanical hammers called "Stamps".

These pulverised the ore rock into gravel so that further very extensive washing processes could separate the valuable minerals. The din of these stamps could be heard for several miles and continued day and night, unless there was a drought! From the system of water canals ("leats") a supply was taken that passes under the main road near Relubbus Chapel and finally entering the "Penburthy Crofts" mine via a tunnel ("Drive") that fed the water to a 34 ft and a 36 ft waterwheel situated underground in excavated caverns. These wheels worked pumps to help remove water from the mine. It was much cheaper to utilise waterpower where possible, rather than incur the great expense of a steam pumping engine and its appetite for coal.

From examination of the 2500 Series County series Ordnance Survey map of 1876, You will notice a leat taken from the Hayle River to feed further Batteries of stamps at Carbis Mill. There were more stamps near St Erth Bridge, where the lane is still called "Battery Lane". The known mineral lodes of "Ennys Wheal Virgin" which ground the "River Valley Caravan Site" now occupies, cross beneath the Hayle river and were worked there by the Gurlyn mine previously worked as "Wheal Fox" In their later working they were both operated by John Taylor and Sons who were renowned mine managers.

The workings join under the Hayle River in one place.

When you pass down the lane towards Relubbus Bridge, look out for the roughly rectangular area shown as 1174 on the map. This is a relic of another industry, that of growing reeds for thatching. This plot is almost always covered with water, like a rice "Paddy Field". The reeds still grow here every year, but nobody comes to harvest them any more!

Further down the lane, the cottage on the left was part of mine buildings, most long since demolished. A mine tunnel still exists in the garden entering the hillside to the north. This continued at least half a mile on the course of a mineralised lode called an "Elvan Dyke" and later was utilised to unwater "Wheal Susan" and Bosence mines near Townsend. Drainage water from "Wheal Fancy" situated in the field opposite the cottage, used to be carried over the Hayle River in wooden canals called "Launders" and used to drive waterwheels in what is now the cottage garden, but was once, a small ore dressing plant.

It is estimated that in excess of a thousand persons worked within a mile of Relubbus Bridge, the miners having a life expectancy of less than 40 years on average. Women and children from the age of six years were employed in the ore processing work at surface without shelter in all weathers.

For those who wish to learn more, many books on Cornish Industrial History are available, also there are societies

Such as:"The Carn Brea Mining Society" Who specialise in mining history and exploration. (01209 212149) **www.carnbreaminingsociety.website.orange.co.uk**

"The Trevithick Society" who specialise in Cornish Industrial Archaeology including mines.(01209 716811) **www.trevithick-society.org.uk**

King Edward Mine**. www.kingedwardmine.co.uk**

Roger Moss {Moss Engineering}

Dr. JOHN KENNETH ALMOND

Born in Colchester, Essex on 12 October 1928, third child to John William, a Methodist minister, and Evelyn May (née Wilton). John Kenneth – known to all his friends as Jake – spent his early years in Chelmsford and Hartley Witney. He attended secondary schools in Ramsgate, Southwell and the Holme Valley, before serving two years' conscription (1947 to 1949) in the Royal Air Force; training as a Leading Aircraftsman wireless fitter and enjoying the experience.

Jake then studied for three years at the Royal School of Mines in London as an undergraduate in Metallurgy, with mineralogy lectures from the legendary Prof H H Read. Vacation work included periods at the Eyre Smelting Company and Fry's Metal Foundries. He won the Nuffield Vacation Scholarship in 1951 spending three months with the Rhodesia Broken Hill Development Company, North Rhodesia. He also spent four months in 1952 at Stanhope, Co. Durham, working as a mill shift operator for Fluorspar Ltd in their gravity and flotation plant; an experience he wrote up as the winning entry to RSM's 1952 Students' Competition, and subsequently published in Mine & Quarry Engineering in 1953. This was followed by another three years in the same school as a postgraduate research student in Mineral Engineering, in 1955 submitting his successful thesis for PhD (Eng) London with the title "Applications of high frequency vibrations in mineral dressing". He won the Arthur Claudet Prize of the IMM for an article ("Pulp density measurement with ultrasonics") jointly with his supervisor Dr. A. R. Burkin, resulting from his PhD studies. Thus he left London with the qualifications BSc (Eng) 2nd Class Hons. in Metallurgy, Associateship of the Royal School of Mines, PhD in Mineral Engineering, and Diploma of Imperial College.

Jake at Nenthead Smelting Mill, June 2008.

His professional employment started in 1955 in Gambia where he spent 18 months as mill shift boss for Gambian Minerals Ltd (a subsidiary of British Titan Products) commissioning a plant to produce ilmenite, rutile, and zircon from beachsands mainly by magnetic and H-T separations. Duties also included recruitment and training of local staff, and safety. Whilst in Gambia he married Honor Powell with whom he spent the next 47 happy years. There followed nearly three years (1957 to 1960, when the company was nationalised) as technical manager in Kerala, South India for Hopkin and Williams (Travancore) Ltd processing beachsands at two plants together producing 200,000 tonnes a year of ilmenite, chiefly by magnetic separation. Jake designed and commissioned equipment for rutile recovery, implemented a mechanisation programme, and for six months had overall responsibility for the entire Indian operation.

Jake and Honor returned to Africa in 1960 when he joined the Government of Uganda Geological Survey and Mines Department, Entebbe, in charge of their laboratory unit employing up to 10 subordinates, and responsible for advising miners and prospectors on physical and chemical processing methods. All kinds of mineral samples from the public and Geological Survey were assessed, including tungsten ores, detrital tin and columbite gravels, ceramic raw materials, gold-bearing sands, iron ores, bismuth, graphite, beryl and micas. He prepared trial batches of minerals in a programme to promote growth of the Ugandan mineral economy and contributed to the first national growth plan. After a disastrous flooding from Lake Victoria in 1964, Jake designed and commissioned an entirely new facility including versatile, small-scale, water efficient, continuous plant that he described in an article in the Transactions of the Institution of Mining and Metallurgy in 1973. Jake entered the cultural life too, for some years was Committee Member and Editor for the Uganda Literary and Scientific Society, and took a great interest in local wildlife studies.

His career was interrupted in 1968 by a thyroid problem and they returned to the UK, where in 1969 Jake took a one-year course of technical-teacher training at Garnett College, London, obtaining a distinction in teaching practice during a period spent in the Metallurgy Department of Sir John Cass College.

In 1970 Jake took up a post as lecturer in extractive metallurgy at Teesside Polytechnic (later University) where in 1971 he was appointed to senior lecturer; a post he held until retirement in 1994. The main thrusts of his teaching work were hydrometallurgy, electrometallurgy, and mineral processing for degree level students, together with iron & steelmaking and raw material resources, for various levels ranging from technician to post-graduate. Outside the Polytechnic Jake undertook teaching work for the Open University for over 25 years in such subjects as basic earth science, geochemistry and history of technology, participating in summer schools and field trips. During his long career he was elected Member of the Institution of Mining and Metallurgy, and a Chartered Engineer; Member of the American Institute of Mining Engineers; and Member of the Institution of Metallurgists.

Whilst lecturing in Middlesbrough, Jake studied part-time at Durham University for a Master of Education degree, that he was

awarded in 1982 for his thesis "Factors influencing education in metallurgy in England and Wales, 1851 to 1950". By then he had become firmly involved in industrial archaeology becoming, for example, a committee member of the Teesside, soon to be renamed Cleveland Industrial Archaeology Society (CIAS) in 1971, Chairman in 1973, Treasurer from 1976 to 1986, and Editorial Board Member from 1974 to the time of his death. As Editor also of TIAS and CIAS Newsletters (118 editions in total) from 1973 until his death, he insisted on producing them on an antique typewriter until September 2011. He became a leading light in CIAS and a long-time member and valued contributor to many other societies including The Historical Metallurgy Society (Council Member 1982 to 1987, and again 1990 onwards). He was Chair when the Archaeo-Metallurgy sub-committee was launched, and later served on HMS's conservation sub-committee. He was also involved with the Newcomen Society, Cleveland Institute of Engineers, Yorkshire Archaeological and Historical Society, Association for Industrial Archaeology, Teesside Ships Society and the National Traction Engine Club.

His deep interest in mining, whilst being well served in CIAS with the Cleveland ironstone industry, extended to the Pennines, where he had spent time as a student. From 1994 he was deeply involved in the design of interpretation about the lead smelting mill at Nenthead, which had come into the ownership of a preservation trust. From 1996 through to 2011, he was a Trustee of the North Pennines Heritage Trust at Nenthead. This required working collaboratively and with great patience with archaeologists, enthusiasts, Trust employees and business people to conserve and interpret this important site. In 2003, he collaborated in the production of a book covering the fluorspar industry of the North Pennines with a concise paper on the dressing of fluorspar ores, including his own original observations of this industry. He was a keen member of The Friends of Killhope, Peak District Mines Historical Society, and Northern Mines Research Society.

His papers and scientific articles number over 30, plus many unpublished technical reports from his time in Africa. He wrote a detailed section on zinc production technology in the British Museum publication about zinc and brass in 1990, and other papers followed on such subjects as the history of steel making, steam locomotives, and the early history of froth flotation. Always a popular speaker, Jake was invited to lecture to the Royal Society of Chemistry, won an Iron and Steel Institute prize for a lecture given in Sheffield, and delivered to local history and specialist groups frequent talks that were always well-attended. His particular skills and training put him particularly in demand for help with research studies on old metalliferous slags, zinc smelting, and extraction of copper from pyritic ores, but that was only the tip of the iceberg. He reviewed books for the IMM Bulletin; contributed to books on Victorian technical education, 19th Century steelmaking, and on alum making; and he collaborated in 1983 on the compilation/ revision of a Slovenian metallurgical/technical dictionary, as further examples of his wide range of interests.

The sheer breadth of Jake's interests was legendary, as is evident from the long list of his publications, and the newsletters etc. that he produced; and he became a hub for information exchange on matters of industrial archaeology, not only relating to mining and metallurgy but to the industrial history of the nation. His collection of books, papers and manuscript notes is so large and detailed that it will be conserved and form the basis of a J K Almond archive graciously housed at the Materials Processing Institute, Middlesbrough, where it will be available for researchers. He was passionate about conserving records of past industrial activities and discoveries; and this will be an excellent memorial. Jake was a polymath and his interests included wireless radio construction, from his early days in the RAF. He was a keen member of the British Vintage Wireless Society and collected a vast array of spare parts of radios and other electrical equipment! He was also a music lover, and shared with Honor a passion particularly for organ music, reflected in his membership of the Electronic Organ Constructors Society and the Cleveland Organists and Choir Masters Association. Until age and frailty reduced his mobility, he was a keen gardener and delighted in his orchard – spending many hours researching old varieties of apples and recipes for the annual harvest. He never lost his interest and concern for Africa and the development of its mineral economy; and kept up-to-date with current issues of politics, unfair division of wealth, and the role played by illegal mining in funding paramilitary groups. Nor was he solely interested in the past with respect to energy. He was certainly expert on the history of mining and fossil fuels, but was also deeply interested in nuclear power and in the prospects for renewables. Despite his Methodist upbringing, in later life Jake was a committed humanist and member of the Northeast Humanists.

Dr F W Smith with contributions by E Birch, P Jackson and C Morris. {Edited}

Michael Eavis wants to quarry 400 tonnes of stone at Glastonbury Festival's Worthy Farm

The founder of the Glastonbury Festival will find out this week whether he can quarry stone on Worthy Farm to build new affordable homes. Michael Eavis has applied for permission to extract up to 400 tonnes of blue lias stone from Cumhill (also known as Hitchens Hill Ground), near the Pilton Tithe Barn. He intends to process and store the stone in two existing barns on his land, and use the material to construct affordable properties in the village.

Somerset County Council's regulation committee is expected to grant permission when it meets in Taunton on Thursday afternoon (April 4). Under Mr Eavis' proposals, the stone would be extracted gradually over a 12-month period from an area measuring 1,800 square metres.

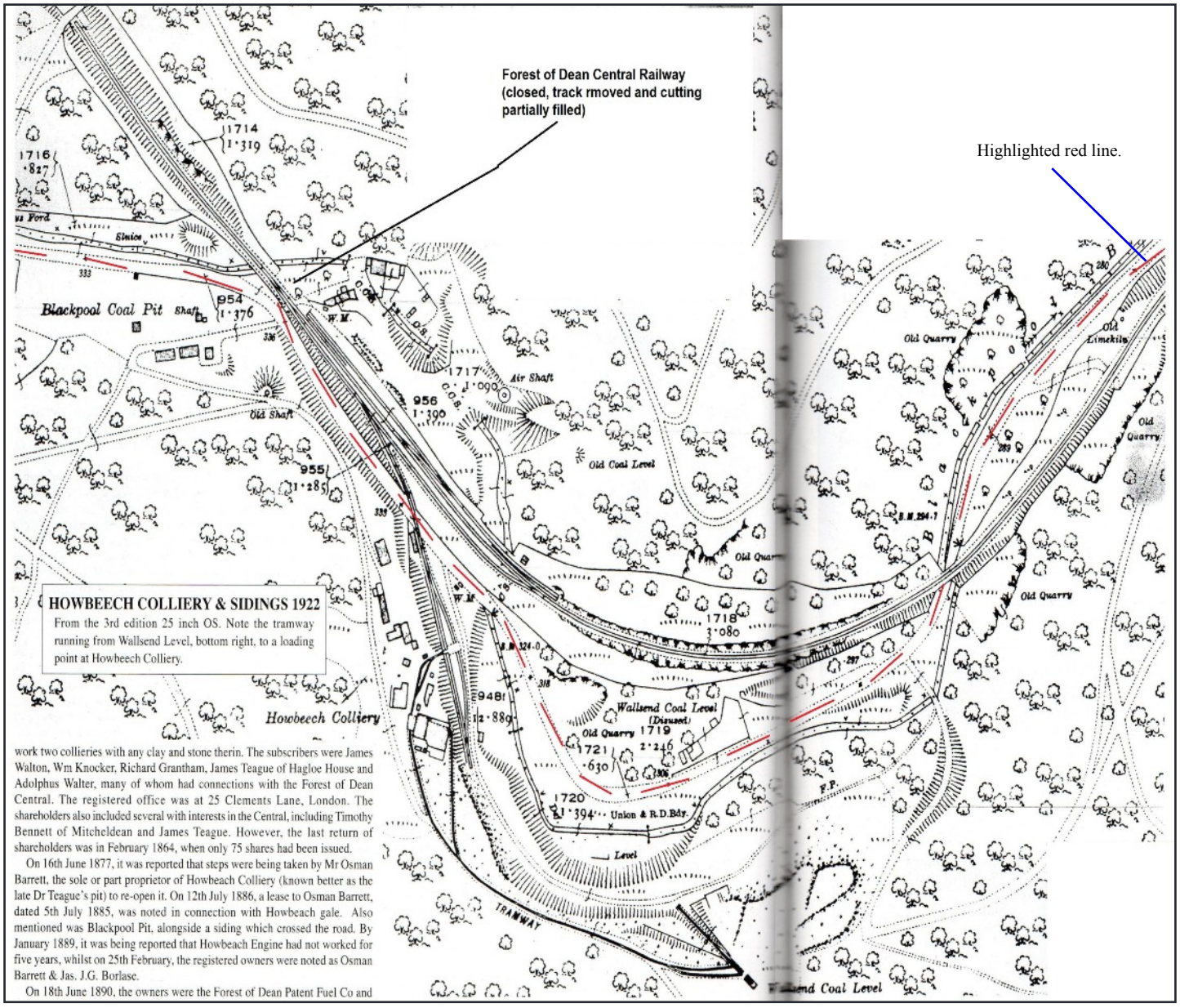
Planning officer Emily Harper explained in her written report: "Extraction would be to a depth of three metres, dug in north-to-south strips moving west to east. "The quarry would be progressively restored and backfilled at the end of each day."All quarrying would be confined to between 9am and 4:30pm on weekdays, with no activity on weekends. Once the material has been extracted, it will be transported by tractor to an existing building (known as 'the red barn') for processing and storage, and thence to another building ('the green barn') for breaking up. After this process is complete, it will be transported to Neat Lane via Copse Lane and turned into housing.

Neither Mendip District Council nor Pilton Parish Council have lodged any objections to the proposals - however, several residents have raised concerns. Christine and James Nicholson, from the nearby Cumhill Farm, said: "We are very concerned about the constant noise from the machinery, digging and shaking of the equipment while stone is being quarried.

Somerset Live. April 2019. {Edited}

News from the Forest of Dean by Rob Needham.

Recently I've been to see the free mine recently opened in the old Wallsend Coal Level. The Level predates the NCB (I heard 'the 1860's' quoted for the date the Level entrance was concreted) and I have photos of the old disused entrance and brick incline which I took in 1996. Since then over several visits it remained disused and increasingly overgrown until recently re-opened. The extract from an old OS map shows the complex site pre-NCB with the Wallsend Level near the bottom on the page join and the road highlighted in red



HOWBEECH COLLIERY & SIDINGS 1922
From the 3rd edition 25 inch OS. Note the tramway running from Wallsend Level, bottom right, to a loading point at Howbeech Colliery.

work two collieries with any clay and stone therin. The subscribers were James Walton, Wm Knocker, Richard Grantham, James Teague of Hagloe House and Adolphus Walter, many of whom had connections with the Forest of Dean Central. The registered office was at 25 Clements Lane, London. The shareholders also included several with interests in the Central, including Timothy Bennett of Mitcheldean and James Teague. However, the last return of shareholders was in February 1864, when only 75 shares had been issued.

On 16th June 1877, it was reported that steps were being taken by Mr Osman Barrett, the sole or part proprietor of Howbeach Colliery (known better as the late Dr Teague's pit) to re-open it. On 12th July 1886, a lease to Osman Barrett, dated 5th July 1885, was noted in connection with Howbeach gale. Also mentioned was Blackpool Pit, alongside a siding which crossed the road. By January 1889, it was being reported that Howbeach Engine had not worked for five years, whilst on 25th February, the registered owners were noted as Osman Barrett & Jas. J.G. Borlase.

On 18th June 1890, the owners were the Forest of Dean Patent Fuel Co and

Mining in the UK: Part I

The national mining industry in the United Kingdom has been in decline for decades, but this is now rapidly changing as the country shifts its industrial strategy, in part to focus on the its own mineral potential - to make Britain a leader in the global technological revolution known popularly as 'Industry 4.0'.

New exploration and mining projects focusing on minerals and metals used in renewables, electronics, industrial automation and military technology have garnered strong government support. Existing projects include extensive gold exploration across Northern Ireland and the Scottish highlands, a proposed lithium extraction project in Cornwall and tin and tungsten mining in Devon and Cornwall. The UK Government and industry players are looking to revitalise domestic mining, placing communities and ecosystems under threat.

However, the prospect of increasing mineral and metal mining activity in the UK and Northern Ireland looks set to compound and reproduce the social unrest and ecological damage that dog other extractive projects throughout these isles. This three part series for The Ecologist examines the issue.

Tech metals

A project to explore for lithium in hot springs in Cornwall has received a £1m investment. This is being used for primary drilling in preparation for sampling and production. Government agency Innovate UK has also awarded a £850,000 grant to a project looking for a lithium 'fingerprint' in Cornwall from space.

These strategic investments reflect the skyrocketing global demand for lithium - used in batteries for mobile phones and cars - which is expected to triple in the next decade. Lithium mining across the globe has shown devastating environmental impacts. Hemerdon in Devon has the fourth biggest reserve of tungsten in the world. However, it has been left untapped for more than sixty years.

In 2011, Australian-based mining company Wolf Minerals was granted planning permission and began work to get the Drakelands mine up and running again. The mine made a £43.5 million loss in its first year despite rising global prices for Tungsten ore. Tin mining in Cornwall may also be revived, as Canadian company Strongbow Exploration acquired the rights to the South Crofty tin mine in 2016, and plans to reopen in 2021.

Northern Ireland

Across the Irish Sea in Northern Ireland, where mineral resources are mostly state-owned, large areas are now covered by mineral prospecting licences given to global mining corporations. Communities across the nation are organising themselves to protect ecosystems and homes.

The Curraginhalt Gold Project in County Tyrone, owned by Canadian mineral exploration and development company Dalradian, has been publicly framed as "one of the best gold projects on the planet", with the area holding a projected £3 billion worth of deposits. Environmental and community-interest groups from the surrounding communities have been fighting against Dalradian's application to mine, taking the government to court in a public enquiry and mustering over 10,000 letters rejecting the mine. Local residents are worried that the 25 year project (which would involve unearthing 1,500 tonnes of rock a day) will rip apart their land and ruin the historic Sperrin Mountains. Dalradian plans to use cyanide solution to extract the gold from the crushed ore at a processing facility just one kilometre from the community of Greencastle. Local people fear that mine waste could contaminate rivers and harm wildlife like otters, salmon and rare freshwater mussels.

High standards?

In the context of Brexit, extractive industry players are increasingly pushing a narrative that mining in the UK- whether it be for coal or gold- represents a better option than importing minerals and metals from mines abroad, because of the UK's high environmental, labour and human rights standards, and the employment the industry will create for UK citizens.

Cont.

The experiences of communities across the UK resisting new coal and fracking operations tell a different story, however, and reveal how the UK is involved in a 'double-movement'- promoting and perpetuating the extraction of both new fossil fuels and new minerals and metals used in renewable technologies.

The threat of opencast coal mining across Northeast England continues despite the UK government's 'Powering Past Coal' initiative, which promises to close all coal-fired power stations in the UK by 2025. New open-cast coal projects that will offer little employment are opposed by a united front of local residents, campaigners and mining unions. In Pont Valley, Northumberland, the Banks Mine Group plan to extract 500,000 tonnes of coal from Bradley opencast mine. Banks is also attempting to open another new coal mine in Druridge Bay, Northumberland. Both projects have faced long-term opposition from local communities and are embroiled in court cases and controversy.

Meanwhile, fracking protesters across the UK have faced criminalisation while reforms of trespass laws and reversal of local authority decisions banning fracking cast a dark shadow over Government and industry claims to uphold and adhere to highest standards. New mineral and metal mining operations are facing similar resistance, and that resistance is facing similar repression. A case in point is the Curraginhalt Project in Northern Ireland, where in January 2018 land defender Cormac McAleer of community group Save Our Sperrins was arrested for allegedly blocking a highway, before being swiftly released

Global boom

The common dynamics evolving at current UK extractive projects: local community concern, repression of local democracy, regulatory back-sliding and plans for expansion create a disturbing picture of how a future mining boom in Britain might unfold. These dynamics are echoed in the expansion and acceleration of exploration and mining projects across Europe over the last five years. In Spain, France, Greece and beyond, plans to mine tech metals and rare earth minerals are being met with huge public opposition.

The growing footprint of mining in the UK reflects the Government's new industrial strategy, which aims make Britain a leader in the global technological revolution. The new technologies necessary to advance the 'Fourth Industrial Revolution', require massive amounts of minerals like lithium, cobalt, copper. This has triggered a staggering rise in the price of tech minerals and metals, and a global race for raw materials in which securing competitiveness through domestic supply has increasingly become a priority.

Another priority is to secure supplies of these critical minerals and metals from other nations through aggressive trade strategy. The extraction of minerals and metals from colonial and former-colonial territories has long provided a source of capital wealth and material development for the United Kingdom. With the UK having to develop extensive new trade agreements post-Brexit, the extent to which mining grows in Britain will likely pale in comparison to the expanding footprint of UK extractive activities and the impacts of UK demand in the Global South.

But what might the full ecological, social and climate cost of this industrial shift be? How will Brexit affect the rate of mining resurgence in the UK and beyond? And how does deepening this commitment to extractivism threaten both the speed and just-ness of a transition away from fossil fuels? We will explore these questions further in the second article of the series.

The Ecologist. Feb 2019.

Bernard rewarded for 40 yrs service.

Bernard Bond was awarded a Cave Rescue Organisation Long Service award in February at a special presentation. Can you spot him? Clue - he is holding a 40 years service certificate. Well done Bernard.

{Bernard second from the right front row}

Barbara Sutcliffe.

Warren Moor Mine with chimney.

Site of Skelton Shaft Mine.

Skelton Shaft Mine fan house.

North East Yorkshire and Cleveland

North York Moors

Land of Iron Partnership Project is about half way through its allotted timescale the project is split into three sections. One section, preservation of mining heritage remains, which up to now has seen work almost completed at the **1864 Warren Moor Mine** in Kildale. This site has been closed to the public due to that fact that it had two open shafts the upcast shaft having an unusual pump vault. The shafts and vault have now been grilled to ensure public safety. The shaft collars have been consolidated, volunteers have cleared away vegetation and engine bed masonry has been pointed using lime mortar and the site will eventually be opened to the public. There is a fine Victorian chimney still standing that took away smoke and fumes from the steam boiler plant and it is said, aided mine ventilation.

Esk Valley Mine has received attention from the volunteers in the shape of vegetation clearance and the fence has been replaced, it is planned to grill the upcast shaft and open this site to the public.

Coombes Wood Mine at Beckhole near Goathland has seen vegetation removal from a badly damaged bridge support, re pointing and masonry replaced.

Rosedale Railway Track has received a lot of revetment work on a land-slipped section near the East Side Kilns, this work gave access to further up the track for heavy equipment that has cleared out a large blocked culvert under the embankment at Reeking Gill and has probably saved the integrity of the continuity track. When the work was been done at Reecking Gill, I understand a resident of Rosedale showed the project manager the original construction plan of the track. This drawing showed a large number of other culverts that were blocked and these have since been cleared. On the West side of the valley a new fence has been erected around the Sheriff Pit shaft.

The Project's environmental work has been funded and carried out on mine water pollution control, Ring Ouzle, Water Vole, Salmon and Sea Trout conservation,hay meadows and PAWS (Plantations on Ancient Woodland Sites) which is a scheme for removal of alien tree species and reinstating native species.

There have been archaeological digs at the top of the Goathland – Beck Hole Incline and at the early Ironstone Mine site in Coombes Wood.A YAC (Young Archaeologists Club) has been set up for children and has been running for around a year.

There is ongoing and planned work for a new and large exhibition at the National Park Centre at Danby and accurate interpretation signage is in preparation. Volunteers have been funded to attend courses on; Working in Confined Spaces, First Aid and Working with Hot Lime Mortar Mixes amongst other subjects. The Project has lots of opportunities for volunteering including at the archaeological dig at Coombes Wood.

The Land of Iron has awarded grants to fund a diversity of Community Projects which has included helping with public transport access to the North York Moors National Park to renovate the powder store at Esk Valley Mine and a protect it.

There is much more to tell about this project, for more information go to, **northyorkmoors.org.uk/landofiron.**

Cont.

Cleveland. Redcar and Cleveland Borough Council's industrial heritage project, Our Industrial Heartland finished last year but another project is continuing through 2019 and 2020 called **East Cleveland's Industrial Heartland** the focus of this project is from Huntcliff mine in the north on coast to Boosebeck and Lingdale to the west and south. The aim of the project is to Discover, Catalogue and Promote the Industrial Heritage specifically at ironstone Mining sites that are in serious states of decay. The project is working closely with the Cleveland Ironstone Mining Museum and the Land of Iron project the team will be putting on illustrated talks and family heritage walking activity days, 3D Photogrammetry, small mammal surveying, Mine Water Discharge, Invertebrate Testing amongst other activities.

There is a website and blog thing which appears to be very popular with the general public.
www.east-clevelands-industrial-heartland.co.uk

The **Cleveland Mining Heritage Society** is still very active with their own projects and has some members also involved with the Land of Iron and Our Industrial Heartland projects. Maintenance is ongoing at their adopted mine sites, Skelton Park Pit, Grinkel Mine, Coate Moor Mine and other sites. Regular weekly working parties are uncovering remains at Skelton Shaft Mine and renovation work is planned for this year at Esk valley Mine Powder House which is funded by a Land of Iron Community Grant.

The CMHS has had to replace five broken locks on our mine entrances, due to uninvited visitors, underground damage to pristine floors has included Clog and barrow marks trampled on, arrows and graffiti drawn on walls with chalk wax type crayon which is difficult to remove, this looks very similar in nature to the graffiti that has appeared in the mines around Nenthead this past year, such as the word THANKS that I saw in Smallclough Mine where a fixed abseil rope had been stolen!

C. M. Keighley

New Guidance on reporting Heritage Crime.

REPORTING A HERITAGE CRIME

The following is an aide memoir for when reporting a crime that has been carried out to a church, historic building or archaeological site.

1. If an incident is occurring **now** or if suspects are still at the location dial 999 and ask for police attendance.

   If the incident **has already happened** and suspects are no longer present please report via our website https://www.sussex.police.uk/ro/report/ocr/af/how-to-report-a-crime/ or call local non-emergency police number, 101 or Crime Stoppers on 0800 555111. If connected to a Contact Centre ensure you state that you wish to *'REPORT A HERITAGE CRIME'*.

2. Give details of the offence you wish to report, such as

   - *THEFT*
   - *CRIMINAL DAMAGE*

3. Give them your details - full name, personal address and contact telephone number(s), e-mail address.
4. Give full victim details.
5. Give full location including postcode e.g. St. Blogs, Blogsville, Blogshire, BG1 1AA. Please inform them that a *HERITAGE CRIME* has been perpetrated at a *HERITAGE ASSET*.
6. Provide an accurate timeframe encompassing when the offence took place as best you can.
7. Detail property damaged or items stolen including identifiable marks etc. as you can.
8. Provide a clear summary of what has happened. Give events in chronological order.
9. Ask for a crime or police reference number.

Sussex Police Heritage Crime Advisor, Daryl Holter. Has created the following guide for the "Reporting of Heritage Crimes".

The Churches Conservation Trust. Has kindly allowed him to use their original version which has now been adapted with their permission to aid the reporting of all Heritage Crimes to the correct authorities.

This should be useful to all Industrial Heritage groups, Archoligist, Conservation and Preservation groups alike.

We must stress that this is only a guide but it dose cover all the basic requirements when a crime has been identified and needs reporting.

Sussex Police **{Edited}**

Wyndham Mine

The name haematite was given by the Greeks because of its resemblance to congealed blood (Thophastus & Pliny)

Using our website online mapping, Bigrigg Wyndham Pit is easting in 300322, northing 512579

According to "Special Reports on the Mineral Resources of Gt Britain Vol V111" kidney ore was present but not as common as at other mines at Cleator Moor. A pillar-and-stall method was used whenever the ore was thick enough. With the roof being strong it permitted chambers 90` across and 20-30`in height being left without roof supports.

Durham Mining Museum website informs that in 1880 Wyndham Mining Co operated the site for iron ore, the last date given being 1914 when only pumping was taking place. Between 1889-96, 60 men were employed underground and 29 at the surface. From 1902, 39 were underground and 46 at the surface. Figures in 1896 show 53,679 tons of ore were extracted and in 1913 this had crept up to 72,764 tons. No disasters are recorded when more than 5 were killed but the site has the names of 17 separate incidents including a 29 year old miner in 1882 who while intoxicated attempted to slide down a pit rope and fell to the bottom!

From the Survey of Iron Ore Resources of West Cumberland, Wyndham Mining Co Ltd was abandoned in 1924. The Wyndham No 2 and 4 pits were 300 yds SE of Egremont Station and near High Mill. Wyndham No 3 pit was 310 yards SSE of Egremont Station. These shafts are filled in, surface subsidence is slight and the mine is flooded. It also informs us that the flat extended to the west of Egremont Main Street and was from 8` to 15` thick, lying on a variable thickness of conglomerates which overlay soft red shale. The ore was left in pillars for support of town property. These pillars are roughly 40 sq ft representing 60% of the original mass and are estimated to still contain about 200,00 tons of ore. Supporting pillars left in the mine near to the River Eden at the railway bridge are said to contain some 80,000 tons of ore. Water from the river made its way in there on one occasion but the flow did stop. In total in Wyndham Mines it is thought the ore still in supporting pillars amounts of roughly 280,000 tons but would cost a great deal to get out. It would appear that none of the abandoned mines in the area was closed because of just water. Many had been nearly worked out. In the case of the last mines to be closed pumping charges were a contributory factor.

Barbara Sutcliffe.

Coal Mining to restart at Nant Helen, near Ystradgynlais

The application by Celtic Energy, to extend mining up to December 31, 2021 and restoration work to be finished by June 2023, has been approved by Powys County Council's planning committee. This will protect around 100 jobs for an extra three years. Mining at Nant Helen was supposed to stop on December 31, 2018. The site had been mothballed by Celtic Energy in October 2016 due to a loss in demand for its coal. Another mine of Celtic Energy's, East Pit near Brynamman is coming to the end of its productive life.

Celtic Energy want to re-start the mining operation at Nant Helen to fulfil its existing contracts which is for around 400,000 tonnes of coal a year. It is estimated that Nant Helen has around 800,000 tonnes of coal left. This will be used at Port Talbot's Tata steel works and contracts it has at Immingham in England, and Belgium.

Mrs Mansel-Davies, who spoke against the proposal, believed that the company should not be allowed to re-start mining as it had been: "their decision to mothball the site." Mrs Mansel-Davies, said: "Since the mine was mothballed our quality of life has improved significantly as we no longer had the mine negatively impacting on our lives." She said that dust and sound had disappeared, but now it was returning and getting worse as the mine moved closer to residents' homes. Mrs Mansel-Davies added: "I note that the The Welsh Government and Planning Policy Wales have said planning permission for open cast or deep mine development should not be permitted. "As the application is new, I think it should fall under this criteria and be rejected."

Cllr Roger Williams (Liberal Democrat – Felinfach), said: "I think what the people who live there are concerned about, is that the process is continuing. "There is this expectation that all this will come to an end and now another application to extend the work will be disappointing. "After this comes to an end. Is this the end? "Can we ensure that all work is carried out in the agreed time scale and it's restored and that will be the end of it."

Hugh Towns, regional mineral and waste planning manager answered: "In discussions we had with Celtic Energy, the indication is they would need an extension for two years and three months in order to complete the coaling period. "What we suggested to them to put (an application) in for two years and three months and then come back for an extra nine months later on, might not be a great idea." Mr Towns said that the suggestson was made to Celtic Energy: "Why not put in for three years now."So that everyone knows where they are and that hopefully the development will be completed in two years and three months. "But we have tried to put a bit of a backstop on it as there may be changes we don't know about."

Sent in by a member. Powys Country Times. **March 2019.**

Planning Application Submitted For Dewley Hill Surface Coal And Fire-clay Mine

A planning application for a new surface coal and fireclay mine on the border between Newcastle and Northumberland which would support up to 50 jobs has been submitted to Newcastle City Council for review.

The Dewley Hill surface mine is a joint planning application by Banks Mining, part of County Durham-headquartered employer. The Banks Group, and Ibstock Brick, the owners of the Throckley Brickworks. The Brickworks is around half a mile from the Dewley Hill site, which sits on agricultural land to the north of the A69's Throckley junction and to the east of the B6326 Ponteland Road. Around 800,000 tonnes of high quality coal would be extracted from the site, most of which would be used for industrial purposes such as the production of steel and cement, as well as 400,000 tonnes of fireclay, which will be used in the manufacturing of bricks at the nearby Ibstock Throckley brickworks.

The scheme would run for a limited period of three and a half years from the start of operations to the completion of restoration, and the companies are hoping to have the application determined by the City Council's planning committee before the end of the year. Jeannie Kielty, community relations manager at The Banks Group, says: "This is a carefully-designed and sensibly-located scheme that will bring a wide range of tangible benefits to the local area and help to meet more of the UK's continuing need for minerals from high-quality domestic resources.

"Imports of coal from Russia during January to March 2018 increased by over 730,000 tonnes compared to the same period a year earlier to make up for the shortfall in UK production. In one quarter the UK increased its reliance on imports from Russia by almost the entire tonnage we would mine at Dewley Hill in three and a half years. Not producing good quality coal from local reserves is simply off shoring not only much needed jobs and value, but also environmental responsibilities leading to an unnecessary increase in global greenhouse gas emissions.

"Fireclay is an essential component of the brick-making process, and is only found immediately beneath coal seams and therefore can only be accessed when extracting the coal seams which lie above it. "This vitally important mineral is in very short supply in the UK and Dewley Hill will provide much needed future fireclay supply for the Throckley Brickworks, which will not only help protect North East jobs but will also assist the national drive to build more homes across the UK. "Gaining access to these indigenous, raw materials will also further extend the Dewley Hill scheme's positive contribution towards the country's balance of payments."

The Dewley Hill scheme has been designed to deliver a range of social, economic and environmental benefits, including a £50,000 community fund, a £50,000 skills fund to help local unemployed people overcome barriers to work, the planting of over 26,000 trees and hedgerows in a newly-created woodland area, and the enhancement of local heritage assets, such as the historic wagon ways, which are surviving examples of the rich mining heritage in the region.

Jeannie Kielty continues: "The site would support up to 50 highly skilled, well-paid jobs and will open up substantial new opportunities for local suppliers, extending our long-term record of investing in the communities in which we operate. "As a North East company with over four decades of surface mining experience, we have the skills and experience required to work the Dewley Hill site in a safe, efficient and environmentally responsible way, and hope Newcastle City Council's planning committee will recognise the merits of this scheme when our planning application comes before them."

Nick Spence, Planning and Estates Manager for the North at Ibstock Brick, adds: "We are delighted to be working with Banks Mining on this project, as not only is this a joint mining programme that will deliver the raw materials we need, but it's a joint ethos. "Our approach to sustainable working is culturally aligned to Banks' development with care approach, which places high value on community engagement and support and care for the environment."

Business up North. March 2019.
Sent in by a member.

Leslie Owen Tyson

We regret to announce the death of Les Tyson in late January. Although he wasn't born in Yorkshire, it was the native country of his soul, and he was able to move there permanently around 16 years ago. He first went to South Otterington and ended up in Spennithorne. Both put him within easy reach of the North Yorkshire Record Office where he became a Wednesday regular pursuing his research into the history of lead, copper and coal mining in Swaledale and Arkengarthdale, which had been his overarching interest for the last 40 years.

Despite not having an academic background, Les's meticulous and tenacious research led to many advances in our understanding of mining history. For example, he showed that customary mining law had been used at Marrick during monastic times. He came across references for fire-setting to break hard rock in Yorkshire as well as that county's earliest known date for the use of gunpowder for blasting. He also published the only known accounts for working one of Arkengarthdale's hushes. Les's work made it possible to fit various developments within a chronological structure. He also pioneered the study of coal mining in the Dales, with his study of collieries in Mashamshire. It is often the case with avid researchers that they hoard their information. Les, however, was happy to share nuggets with other researchers. As well as papers, he wrote four monographs on the Marrick, Arkengarthdale, Grinton and Mashamshire areas which were published by the N.M.R.S. Sadly, he left us with his magnum opus on the Tan Hill and King's Pit collieries unfinished, but it is intended that others will complete this major study and eventually bring it to publication. Les's contribution to mining history will endure.

Mike Gill.

Men and Officers of 185th Tunnelling Company.

Tunnelling at La Boisselle.

Early attempts at mining by the British on the Western Front commenced in late 1914 in the soft clay of Northern Flanders.

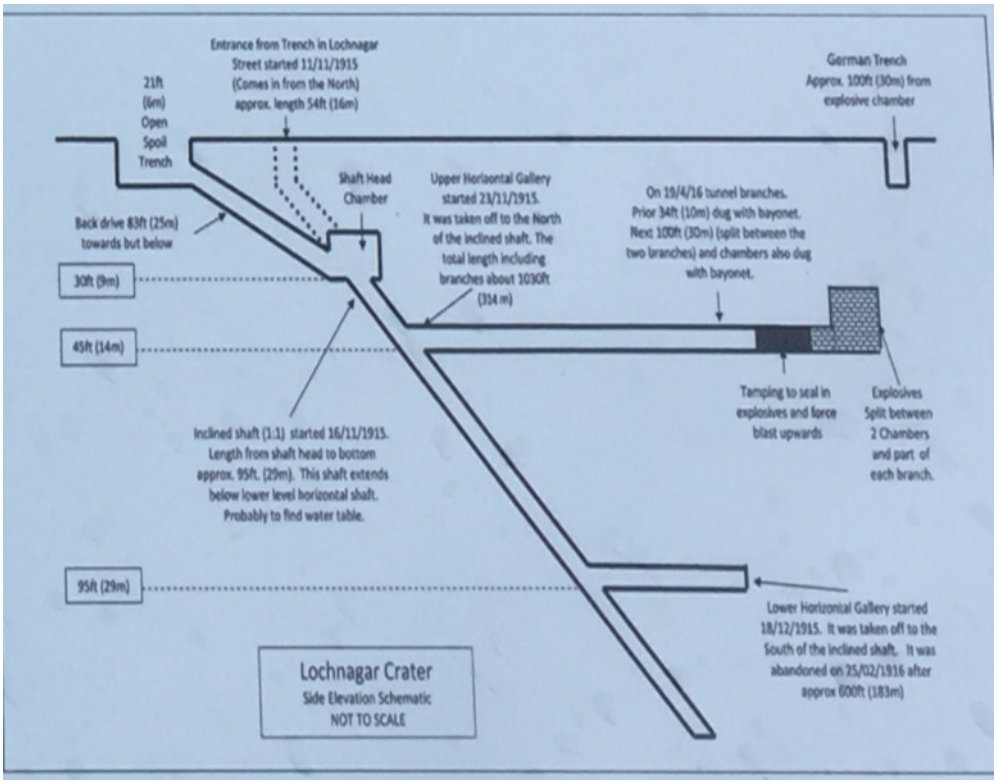
In La Boisselle the opposing French and German forces began mining operations in late December 1914. The mining in La Boisselle was in hard Chalk and thus required different techniques to be used.

In the summer of 1915 the newly formed British Tunnelling Companies {BTC} were moved to the Somme front line and took over all tunnelling opperations from the French. This included approximatly 66 shafts of which a number were at La Boisselle.

By mid 1915 the narrow strip of no-mans land beside the fortified village know as "the Glory Hole"had turned into a morass of craters, each being the result of the ever increasing size of underground detonation of explosive chargers.

The underground warfare continued along side the surface warfare with underground offensive mining operations designed to destroy one another's tunnels, dugouts and strong points. Tunnel depths ranged from arround 9mts to the deepest at 36mts. Arround La Boisselle alone several Kilometres of tunnels were dug by both sides. The Germans had also dug and prepared defensive tunnels at a depth of 24mts parallel to the front line.

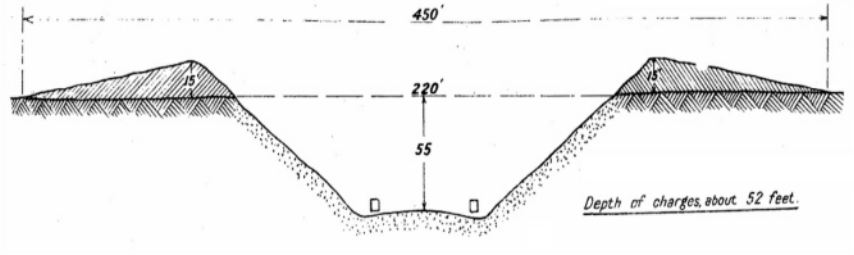
In late 1915, it was agreed that a Franco-British offensive on the Somme should be launched in the summer of 1916. Using the coordinated forces of Infantry, Artillery, Aerial-reconnaissance and Strategic Mining. Work was started in November 1915 by the 185th Tunnelling Company and was completed by the 179th Tunnelling Company who took over in March 1916. The objective was to create a massive mine under the German redoubt of Schwaben Hohe.



Lochnagar Mine.

The shaft for the Lochnagar mine was sunk about 120mts behind the British front line and 304mts from the German front line. In a communications trench called "Lochnagar Street" an inclined shaft was dug at an angle of 45degs, to a depth of arround 35mts. Two almost horizontal galleries at different depths were driven toward the German strong point called Schwaben Hohe. Only one was finally used at a depth of 15mts below ground level. The explosive chambers were about 16mts deep and approximatly 30mts short of the German front line. The tunnels were approximatly 1.2mts high and 0.8mts wide. An average of 5mts advance per day being archived in very difficult conditions. For every foot advanced 48 bags of chalk had to be removed to the surface, much of this spoil would later be returned to seal the tunnels after the charges had been laid. As the tunneller's drew closer to there objective, progress slowed down

due to need for silent working. Pick axes could no longer be used. Instead bayonets were fitted with wooden handles. The tunneller would force the bayonet into a crack in the face or along side a flint in the chalk, of which there were many. He would then twist it to break of a lump of chalk, this was extremely arduous and slow. In fact during March daily progress fell to less that one foot a day advance. Another tunneller would then catch it before it hit the floor. Men worked in bare feet and the entire gallery was carpeted in sandbag to maintain silence. While miners were working an, Army Officer would be present to enforce the stricked silence.



The Lochnagar crater, shortly after it was blown, showing the location of the two charges. From The Work of the Royal Engineers in the European War, 1914-19. Military Mining (Chatham, 1922).

The mine was charged with 27 tones of high explosive and sealed. It was detonated at 7.28 am on the 1st July 1916. The resulting explosion was devastating. The mine hurled up into the air 84,000 tons of earth and chalk, it left a crater 220 ft across and 55 ft deep. The mine also destroyed 600 ft of the German front line trenches.

Joe Cox and Tom Hodgetts. Ex miners from Shirebrook in Derbyshire. Photographed hear serving with the 185th Tunnelling Company in-Albert France 1916. Friends before the war, only Tom survived.

Many of the tunnellers were ex miners who were recruited by the Tunnelling Companies. Pals from coal mining areas back home were recruited in gangs and many remained friends long after the war, if they survived.

The spoil heap from the Lochnagar workings quickly grew into a colossal mountain of white chalk. The Germans could see this from Ariel photographs and there own front lines. Several attempts were made to shell this area but the mine itself was never damaged. Ventilation was from a large pair of blacksmiths bellows connected to a hose which ran up to the working face. The air quality was barely sufficient with the miners candles only being ale to burn at the hoses discharge point.

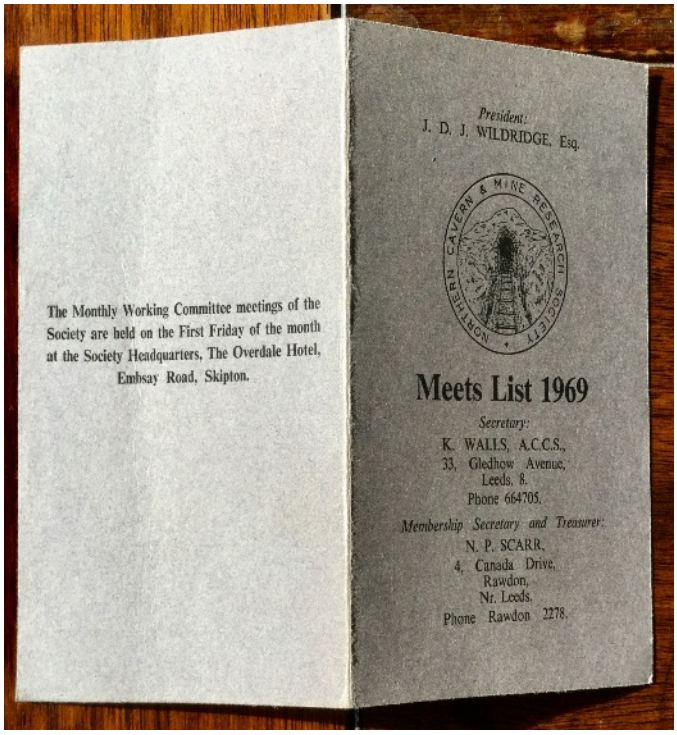
There were frequent disasters such as the one on the 4th Febuary 1916. While the tunneller's were experimenting with a listening device in the Inch Street Area of tunnels. The Germans blew a mine charge close to a British gallery. Methane from the explosion was forced into the British tunnels and detonated, two men were badly injured. The resulting vacuum also drew carbon monoxide from the explosion into the British workings which killed two officers and sixteen miners. Tunnelling was finally abandoned in late 1916..

An Ariel photograph of the Lochnagar crater today

A carved 3D wooden plaque hangs at Lochnagar in tribute to the tunneller's.

Graham Topping.

How Much Has changed in Sixty Years?



President:
J. D. J. WILDRIDGE, Esq.

The Monthly Working Committee meetings of the Society are held on the First Friday of the month at the Society Headquarters, The Overdale Hotel, Embsay Road, Skipton.

NORTHERN CAVERN & MINE RESEARCH SOCIETY

Meets List 1969

Secretary:
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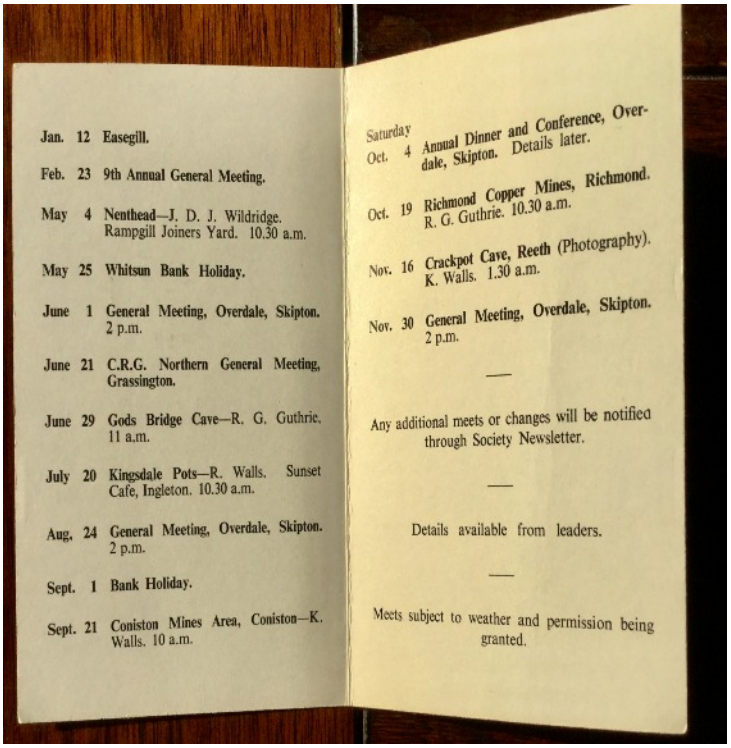
33, Gledhow Avenue,
Leeds, 8.
Phone 664705.

Membership Secretary and Treasurer:
N. P. SCARR,
4, Canada Drive,
Rawdon,
Nr. Leeds.
Phone Rawdon 2278.

This 1969 issue of our Meets List was sent in by one of our founding members. Can you spot any differences to our current one you all received in Febuary?



Jan.	12	Easegill.
Feb.	23	9th Annual General Meeting.
May	4	Nenthead—J. D. J. Wildridge. Rampgill Joiners Yard. 10.30 a.m.
May	25	Whitsun Bank Holiday.
June	1	General Meeting, Overdale, Skipton. 2 p.m.
June	21	C.R.G. Northern General Meeting, Grassington.
June	29	Gods Bridge Cave—R. G. Guthrie. 11 a.m.
July	20	Kingsdale Pots—R. Walls. Sunset Cafe, Ingleton. 10.30 a.m.
Aug.	24	General Meeting, Overdale, Skipton. 2 p.m.
Sept.	1	Bank Holiday.
Sept.	21	Coniston Mines Area, Coniston—K. Walls. 10 a.m.
Saturday Oct.	4	Annual Dinner and Conference, Overdale, Skipton. Details later.
Oct.	19	Richmond Copper Mines, Richmond. R. G. Guthrie. 10.30 a.m.
Nov.	16	Crackpot Cave, Reeth (Photography). K. Walls. 1.30 a.m.
Nov.	30	General Meeting, Overdale, Skipton. 2 p.m.

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Any additional meets or changes will be notified through Society Newsletter.

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Details available from leaders.

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Meets subject to weather and permission being granted.

If you remember this or anything contained in it we need to hear from you? As next year is our 60th year to mark it we would like to include some of your memories in our newsletters. Submissions to the editor please.

Submitted by Caleb Wade.

The strange story of why human urine was transported to quarries in Yorkshire

The cliffs along Yorkshire's coast bear the scars of an industry which relied upon large quantities of human urine. Andrew Vine explores the history of the alum quarries - which saw urine collected from all over the country to mine the mineral used in textile dyeing.

Between Saltburn and Ravenscar the cliffs bear the scars of a strange, malodorous industry with human urine at its heart – the legacy of 250 years of quarrying alum, used in dyeing textiles. Not only did it leave the cliffs with vast grey, barren areas, it also bequeathed one of Britain's most common hoots of derision - "he's taking the p***". At Boulby, Kettleness and Loftus, there are sections that resemble the surface of the moon, and at Saltwick Nab, just south of Whitby, the headland looks as if a giant has chomped lumps out of it.

Gangs of men with picks and shovels wreaked this damage between 1600 and the early 1870's, digging shale bearing alum, which bonded colours to cloth, preventing them from washing out. Extracting alum from the rock created scenes that might have come from a medieval artist's depiction of hell, with 60 ft pyres smouldering for nine months at a stretch.

The trade reeked not just of smoke, but of stale urine, which was the readiest source of the ammonia needed for the complex chemical process. Bizarrely, human waste became a valuable commodity and barrels to collect it were left in every village for miles around with residents encouraged to support the industry, which was a major employer, by passing water for the common good.

Despite their best efforts, they just couldn't produce enough, so a public toilet was opened in Hull, neither for convenience nor hygiene, but as a collection point. There still wasn't enough. And so buckets appeared on street corners in the poorest areas of London and Newcastle. The alum trade was a pioneer of reverse snobbery, being of the opinion that the poor produced a better class of urine, purer because it was less likely to be tainted by alcohol, which they couldn't afford. They dutifully gave of their best and it was collected weekly in barrels for shipping to Yorkshire.

The industry went into decline in the 1850s as new dyes were developed. The cliff top path tells the story of the alum industry, but so do its remains. The Peak Alum Works, at Ravenscar, are the most complete, a production line laid out like any modern industrial complex. But there is another legacy of this strange and stinking industry, that jeer of derision heard daily around the country, originally aimed at the workmen who had the lousy job of collecting barrels from street corners for shipment to the Yorkshire coast.

Yorkshire Post. April 2019.

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.

Data Protection Act

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The pit yard in 1960, showing the elevated incline from the drift.

Harry Stoke Colliery 1961. Who is he?

A journey of full trams waiting to be drawn up the drift.

Ø Collieries of Kingswood and South Glos 1983 pages 50 – 53
Ø The Bristol Coalfield 2003 pages 89 - 93
Ø Collieries of Somerset and Bristol 2001 pages 24-34
The photos with this appeal are from John's books.

Appeal - Harry Stoke Colliery, South Gloucestershire.

A friend of mine is compiling info about this short-lived drift mine near Bristol and is keen to contact anyone with information about it. The mine worked from 1952 to closure on 14 June 1963. It hardly ever made a profit and so was closed. The mine produced 470,000 tons of coal at a loss of 14s 6d per ton. We know some miners went on to South Wales and some to Cornwall when the mine closed as well as miners being bussed to the still operational mines in the Somerset Coalfield. Does this apply to anyone reading this?

We have already spoken to Graham Brown, Ernest Chambers, Donald Crew, Colin Dee, John Denning, Harry Packer, Colin Ponting, Barry Rubery, Jeff Shepherd, Ron Sheppard and Frank Thornell.

We are very keen to speak to any others who worked there or have info especially photos.

There is quite a bit of history in the John Cornwell books below:

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