



Newsletter

Please note that the
deadline for inclusion in
the August 2018

Newsletter is the 24th
July. 2018.

In This Issue.

Page.

1. From your President.
2. Forthcoming events.
NAMHO 2018.
3. Bert Draycott.
NMRS Facebook.
Latest Issue of Arcive.
4. New Book Reviews.
5. Women/Girls. Metal mines.
Country Diary.
6. Church of England.
Giant Magnet Mining.
7. What is Metallurgical Coal?
New Legislation.
8. Stop! Opencast in County
Durham.
9. Fred Dibnah. Heritage centre.
8m Quarry Development.
10. Jersey's Quarrying history.
13. Weardale day out.
Trevor Ford. Memorial.
N. Ireland Gold search.
14. Esqair Mwyn Mine.
16. Curling Stones.
St. Lambertus Church.
17. Coal/Business.
Cleveland Museum.
Burnley's Mining Memorial.
18. "GIFS" mining cycle.
19. Advantaged Fuel?
20. Galmoy. North Kilkenny.
Port Talbot Coal Mine.
21. War Graves Head Stones.
23. Coal Mine renewable battery.
NMRS book sales.
24. Help! Information required.

Editor. Graham Topping
Chapel Lodge. Chapel Lane.
West Bradford. Clitheroe.
Lancs. BB7 4SN. Tel:-
07973905883. Email:-
gl2top@aol.com

From your President

Writing this before the deadline for our May newsletter and therefore before our AGM this should be my last newsletter contribution as **President. James Cleland** B. Sc, Ph. D, F I Corr, C. Eng, FIMM has been proposed by our Committee to that position and should now have been ratified by the members present. I would like to take this opportunity to thank all of our Committee and members for all their help and support over the last seven years and wish James every success as our Society continues to move forward. Many of you will already know him from his attendance at our indoor meetings, his interesting presentation at one of them and also for being one of our most travelled members re our meets. Other positions on Committee remain unchanged.

I would also like to wish **Bernard Bond** a speedy recovery from recent surgery. This prevented him from leading his planned walk after the AGM. A big thank you to Matthew Hatton who stepped in at the last minute.

Elsewhere in this newsletter you will find a flyer re the **North Pennine Mineral Expo** up in Weardale this summer. If in the area please come along and introduce yourself to Rex and myself who will be representing our Society at this event. We will have some of our publications for sale there but if you want to save on postage you can always pre-order and collect at the event. Last year was a real family event with an excellent atmosphere and as then I will be providing some activities for the children.

The following Saturday Rex and I are hosting a **Garage Book Sale** prior to Graham's meet. We are very grateful for the donations of books we receive at NMRS and appreciate it when donors allow us to sell duplicates to further the work of our Society. A few of these duplicates will be listed in our newsletter each quarter and I am pleased with the response received so far. If you have any "wants" please let me know in case I can help.

The **Heritage Open Days** this year will be spread over two weeks, 6th-9th September and 13th -16th September, giving more flexibility to visitors and heritage attractions who plan their openings.

For those of you with an interest in **Queen Street Mill in Harle Skye**, Burnley you will be pleased to know that L.C.C. have decided to reopen it on Saturday 7th July. It will then be open on a Friday, Saturday and Sunday until the end of October. This is a two year scheme, with it reopening next Easter. A care and maintenance scheme has been in place since closure while L.C.C. continue to explore options to secure its long term sustainability. This is also going to be extended to make sure the building and collections are properly cared for during the times of the year when it is closed.

You may have heard about the new **General Data Protection Regulation (GDPR)** coming into effect on May 25th, 2018 and which we must all now be compliant with. At NMRS we have always been careful to protect your information and we never pass it on to third parties – reclaiming gift aid is an exception. This new regulation allows you to have control over it too and allows you to decide what information we have. Obviously we need certain data to enable our Society to function and provide you, the member, with membership services, publication services & enquiries utilising our internal system. E-mail address (unless accessing our newsletters is optional) as is telephone number. In preparation for the GDPR, we are contacting our membership, via an insert in this newsletter, to give your consent to process the data you give us on that form in order to provide you with your membership benefits. **Please note that failure to complete the form and return it to our membership secretary, will mean that we can no longer contact you legally, and your membership will cease.** The form, once completed and signed can either be posted or if you have the facility it can be emailed to our membership secretary. **In both cases it must be signed.** Also please note all PayPal transac-

tions are additionally subject to the PayPal privacy policy. We will be producing a new Privacy Policy which Society members will be able to access when in place. You will also notice slight changes in membership renewals for 2019 taking into account the GDPR.

I would like to welcome the following new members

David Chadwick	- Cornwall
Phil Devit	- Derby
Stephen Dickinson	- Ambleside
Robin Ellis	- Sheffield
John Evans	- Wanlockhead
Mr & Mrs Mark Green	- Plymouth
Mr K Johnson	- Scarborough
Richard Neilson	- Penrith
Mark Odgers	- Aberdeen
Sam Roberts	- Ilkley
John Robinson	- Milton Keynes
Laura Robinson	- Plymouth
Ian Senior	- Sale
Linda Smith	- Stockton-on-Tees
Richard Sutton	- Nottingham
James Towill	- Berwickshire
Kevin Walsh	- Preston Brook
Barry & Tanya Welch	- Torquay

Barbara Sutcliffe

Forthcoming Events

May 12th: Wensleydale, Wet Grooves Area.

We are promised an interesting and varied day out with the possibility of a short underground excursion so please bring the appropriate equipment. Details of the meeting place are still not finalised. Leader: Charles Lamb. Contact Mick Cooke 01282 427428 or mecooke@tiscali.co.uk

June 9th: The Collieries and Geology of West Calderdale.

Meet 10.00am at Walsden Library, Rochdale Road, Todmorden OL14 7SN. A moderate walk of 4/6 hours over good ground looking at the abandoned Foul Clough Colliery, and the Temperleys Pipe Works Collieries. Bring lunch and stout footwear. Leader Graham Topping: 07973905883 or Glt2top@aol.com

Saturday and Sunday 14th/15th July:

North of England Mineral Expo, St Johns Chapel, Weardale.

Sunday July 15th: Rampgill Mine, Nenthead:

Mod. underground with some wet sections and ladder climbing. Maybe advisable to carry lunch. Meet 10.30am at Nenthead Car Park. Leader will be from the Heritage Centre. Contact Mick Cooke: 01282 427428 or mecooke@tiscali.co.uk

Saturday 21st July:

10.30 to 12.30, Garage Book Sale at The Old Manse, 93 Halifax Rd. Nelson, 01282 614615 or mansemmins@btopenworld.com
Following the sale, Graham Topping will lead a short (approx. 2 hrs flat easy walk) to Aspen Colliery, Oswaldtwistle. Meet Church railway station, 70 Market St. Church BB50DP. Tel or text Graham 07973905883 or

It is with regret that I have to announce that the May meet to Wensleydale has been cancelled.

Mick Cooke

NAMHO Conference 2018

“Mines, Mining and Miners of the Forest of Dean: “

A law unto themselves” 1st to 3rd June 2018, Dean Field Studies Centre, Parkend near Lydney, Gloucestershire The lecture programme for the conference is based on the local area and will bring together recent research. Proceedings will be published after the conference. There will be 42 underground trips, four guided surface trips and a series of self-guided walks. A video suite, showing mining related videos and DVDs, will run parallel to the lecture programme; and there will be training activities using the facilities at the venue. On Saturday evening there will be a boar roast and live music. Local attractions include the Forest of Dean Railway, Clearwell Caves, Hopewell Colliery and the Dean Heritage Centre. Bookings can be made at <https://www.namho2018.info/>

Penny Rigg Mill

Cumbria Amenity Trust Mining Heritage Society report that H.L.F. money has been used to re-build walls and replace lintels at Penny Rigg Mill, Coniston. Upper Bonsor Mill has been consolidated; and archive research has been done for both sites and publication of results is expected.

Nenthead

Nenthead Mines Conservation Society has replaced supports in Carrs Mine, and is planning to take over a set of jigs presently lying at Silverband Mine.

Radstock Museum

Radstock Museum has a new virtual reality attraction to take visitors on a ride into Radstock Mines with descent in a cage, travel in a coal truck viewing miners at the coalface; and seeing some miners escaping from a rock-fall and others racing to escape from water from a disused flooded tunnel.

Sallie Bassham.



Bert Draycott

Ex Coal Miner, Pit Deputy, World Champion Spoons Player, folk singer and raconteur of Fishburn, Co. Durham. Bert Draycott died on 29th Sept. 2017.

I first met Bert in The Hope and Anchor, Greatham, Boxing Day Session after watching the annual Greatham sword dance 2012. I was introduced to him by a mutual folkie friend because I have an interest in mining and mining songs. Bert and I had a long conversation about the songs and of course mines and mining. I had no idea that I was talking to such a star, he just mentioned that he had made a CD and he would send me a copy if I gave him my address, which of course I did. Before the New Year arrived his CD dropped on my doormat.

What a CD it is too, it is simply called Pit Songs, if it had been available to a wider market I'm sure that it would have become a Folk Music Classic. On the recording Bert tells tales, recitations, jokes and sings of coal mining and miners in County Durham. He sings with a heartfelt truth in his words, 'There's Nee Netties Doon the Pit', he tells of new ideas like the Armstrong Airbreaker, a device that used highly compressed air pumped into the coal seam that broke the coal face up, but a hose broke and lashed about, stripping the clothing and skin off of a couple of miners; That was the end of that idea.

I was lucky enough to meet Bert again, at the first Hartlepool Folk Festival in 2015 where I saw him, aged 84 performing standing on a pub table. At the same festival after a program of songs and talk about the 1984 coal strike I had the privilege to have another long chat with him over a sandwich and a pint or two.

The Northern Echo 2nd October 2017

TRIBUTES have been paid to a former miner and celebrated folk musician whose spoons playing finesse inspired audiences of all ages. News of the death of Bert Draycott last week at the age of 86 has shocked and saddened the community of Fishburn, County Durham, where he lived his whole life.

But tributes for the grandfather-of-two have been flooding in from further-a-field than that. For Mr Draycott was known and loved across the country for his musical talents, triumphing at the World Spoons Championships countless times and staging workshops to encourage more people to take up the traditional instrument. He also helped set up Sedgefield Folk Festival and was a regular performer at gigs and special events across the country. Festival organiser Joan Edmondson described him as legend. "I think what made Bertie so special was his warmth and the fact he was always interested in people," she said. "He was wonderful at giving advice, as he had been through a lot himself over the years. "For a man in his 80s he led such a full life. As well as music, he enjoyed pottery and wood carving and was involved in the community in lots of ways."

Mr Draycott mastered the basics of spoons playing while training as a motor mechanic in the 7th Armoured Division (REME). After completing his National Service, he went to work at Fishburn Colliery and it was there he first savoured the sweet taste of success with the instrument. In 1973, he and his colleagues staged an impromptu contest in the compressor house, and after emerging victorious, Mr Draycott claimed the title of World Spoons Champion. In 2001, he resurrected the contest as part of the annual folk festival. Speaking to the Northern Echo in 2011, Mr Draycott said: "My late wife, Maureen and I went to Trimdon Folk Club in the Red Lion one week and saw a great artist. I loved the patter and the songs. The next time we went, the act was awful and I said I could do better. Up I went and the act grew, with spoons, a few jokes and a song." Mr Draycott's friend, Anne Lamb, said she would always remember their trips to the Bude Folk Festival in Cornwall. "I remember him singing one song in a false Cornish accent," she said. "They loved him for it and awarded him with a badge of the Cornish flag, so making him an honorary Cornishman. A great honour "Bertie, wherever you went you touched people with your warmth and humour. You will be greatly missed. No-one can take your place."

Lizzy Anderson

Four of Bert's songs can be sampled or downloaded on the Amazon website but I'm afraid that his CD is no longer available

which I feel is a crying shame. Let's hope that this piece of oral mining history is re-released soon.

There are several movie clips of Bert Draycott on You Tube I hope that you can find and enjoy his act as much as I do.

Colin Keighley

Northern Mines Research Society and Facebook

I admit that I was initially very sceptical about the advantages of our Society being on Facebook but I have been proved wrong. We now have over 1100 "likes", have improved our membership figures and encouraged more retail sales of our publications.

In the beginning I had no idea how to start but my younger daughter set up my Facebook page which was necessary in order to create the NMRS one. With very little personal information being given (my main concern) I was up and running. But what to put on our page was my first priority? I had decided that something directly concerned with us would be pinned to the top. So events and publications would go there. At that point one of our members, Alastair Lings, gave me some searches I could and do use. I am very grateful for his help and advice. The next points of call were the numerous contacts I had built up over the years and after that new posts just fell into place. Now our page not only headlines what our Society does, promotes new pages on our website and shares relevant posts from various newspapers and like minded societies and organisations within the UK.

Occasionally some interesting facts are revealed from our posts. Back in February a post which was originally intended for our Newsletter about Victory V in Nelson resulted in an Ellen Davies saying her father, a miner, had come from the NE to work at Victory V. Apparently this miner, Bob Dobbin, had been a face worker at Thornley for many years, as had all his brothers except one. Back in 1961 he could not see a future in mining to keep his family, including three young girls, so they moved to Nelson for him to work at Victory V. This post became very popular with over 6900 people viewing it. Admittedly there is a great deal of rubbish out there but our page does help to educate the public, pointing them in the direction of our website where possible. I know many of our members are not on Facebook and some are but are not too keen to admit it! However I do recommend that many of you would get enjoyment and information from our page if you were to join Facebook. Privacy settings are there to help you and hide your information from other watchful eyes. You can still be "Billy No Friends" but also on Facebook to follow our posts.

Barbara Sutcliffe.

The Latest Issue of "Archive"

Issue 97 of Archive contains the following:

15 pages on horse haulage in the South Wales coalfield, small mines (part 5 of an ongoing series of articles).

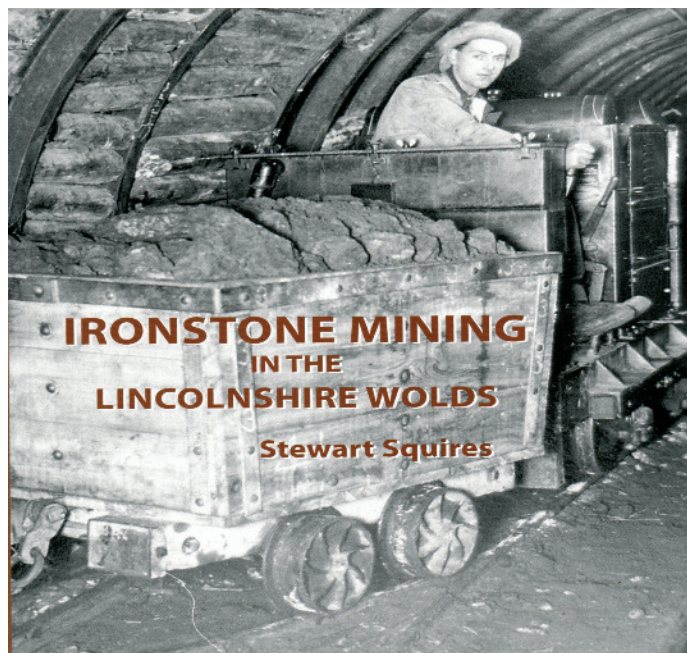
There is also a review of a publication by NMRS member Steve Grudgings.

There's an article on the railways of the Holborough cement works and chalk quarries in Kent.

Supplied by Rob Needham.

New Book Reviews.

On steep western slopes of the Lincolnshire Wolds, between Market Rasen and Caistor, is a large outcrop of ironstone which was mined between 1867 and 1969. Most was dug by underground mining but some was gained by digging away the hillsides. Buildings, railways and tramways also helped to transform the hillsides above Claxby and Nettleton into an industrial landscape.



This book details the history of the development, growth and closure of the mines. It describes the machinery and tells of the miners themselves, the risks they took, how they worked and relaxed. It is a human story of exploration, innovation and hard physical work which has left a legacy to be seen in today's still beautiful landscape. Stewart Squires has studied the Lincolnshire ironstone mines and examined their sites for more than thirty years. He has led numerous guided visits to the three mines featured in this book and, in conjunction with the Down Your Wold project of the Lincolnshire Wolds Countryside Service, has talked to dozens of local people who worked in the mines or have memories of them.

This book is dedicated to David N Robinson OBE who died in July 2017. From his wide knowledge of the subject, David generously provided valuable advice and information to the author and undertook to write the foreword for the book. A large proportion of the funding for this publication has been generated from the sales of David's books donated to SLHA in the year preceding his death.

Generous grants towards this publication are also acknowledged from Lincolnshire Wolds Small Grants Scheme and East Midlands Industrial Archaeology Conference.

Stewart Squires SLHA 2017

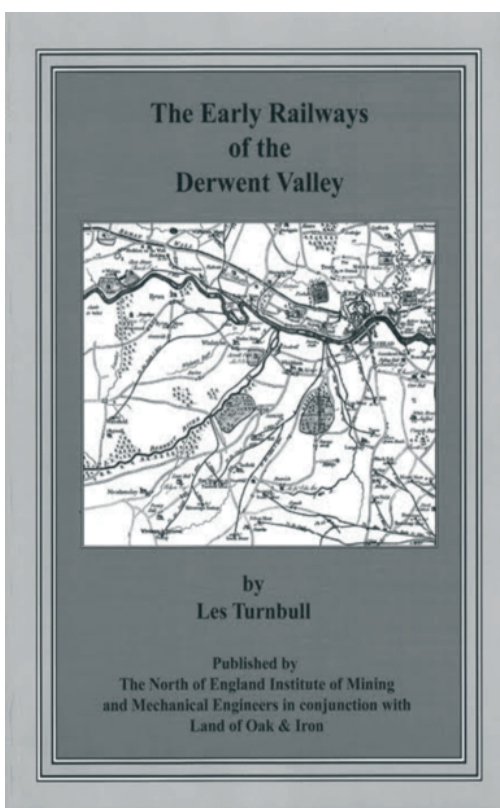
135pp paperback 260mm x 210mm with more than 130 maps, plans and photographs - many in colour

ISBN 978 0 903582 57 5. £15.00 (£18.00 by post UK)

Price to SLHA members £12.00 (£15.00 by post UK)

Reviewed by Rob Needham.

The River Derwent runs northeast from near Allenheads in Co. Durham, past the one-time monastery of Blanchland and the Derwent Reservoir. It skirts the town of Consett and joins the River Tyne at Blaydon, south of Newcastle upon Tyne. In its upper reaches, it passes through outstandingly beautiful upland countryside and throughout its length it is surrounded by locations of remarkable historic interest. It has been an inseparable backdrop to the lead mines and smelting mills of the North Pennines and further down it progresses past iron works before entering the coal mining area around Newcastle. The abundance of coal led to the establishment of the largest ironworks in Europe in 1691 by Ambrose Crowley at Winlaton and two hundred years before George Stephenson built the Stockton to Darlington Railway, Lady Elizabeth Bowes and Lady Jane Clavering opened a waggonway in the valley to take their coal to market. This book explains these early railways and associated features which were an essential part of Britain's Industrial Revolution.



The book starts with an introduction to the Industrial Revolution in the Derwent Valley followed by chapters devoted to the earliest railways in the valley, a description of the Tyne-side coal trade in the eighteenth century and the story of the Whickham Grand Lease and the Northbanks Waggonways. There follows a chapter on the waggonways between 1692-1728 and detailed chapters on the Derwent Waggonway

1728-1800, the

Tanfield Railway and finally, the waggonways leading to the coal staiths on the Tyne at Stella. It concludes with a brief outline of some existing features which are worth a visit together with a short index.

Not only is the book a very good read, it has 84 illustrations, mostly in colour and the author must be congratulated on producing a book of this quality at such a reasonable price.

Turnbull L., 2017, 'Early Railways of the Derwent Valley', North of England Institute of Mining and Mechanical Engineers, in conjunction with Land of Oak and Iron Community, A4, pp. 80, ISBN 978-0-9931151-3-4. (£10.00 + p.&p.).

Reviewed by Richard Smith.

Women and Girls at the Metal Mines of the UK and Ireland

As an inevitable consequence of researching women and girls at the mines of the south west, I have accumulated various pieces of information about other areas in the UK and Ireland, as well. In addition, many of the NMRS members have been kind enough to send me additional references etc. over the years.

I have now gathered a database of over 3,000 named women and girls who worked in the mining industries outside of Cornwall, Devon and Somerset, which is now on our website at www.balmaiden.co.uk (under the 'Women and Mining UK and Ireland' section). The existing database for the South West is still available under Cornwall, Devon and Somerset (30,000 names).

In due course, I hope to deposit a more detailed paper of what I have accumulated/researched in the NMRS library. As ever, I would be very grateful for any additional information / corrections / ideas. Covering such a wide area, has meant that my coverage is very patchy, and about 50% is from secondary sources. (The weakest area is Scotland, for which I have very little information.) The references on the database give an idea of the resources already used. This work is very incomplete – but maybe useful to someone!! (Named women + children in the database cover Derbyshire, Yorkshire, Northumberland, Durham, Cumbria, Shropshire, IOM, Wales, NI and Ireland, (lead), Yorkshire, Cumbria, Anglesey, Airdrie (coal), South Wales, Black Country, Ironbridge area, Guisborough, Scotland (iron), along with a few odd ones like gold + alum. The gathered text includes other areas as well, such as the Staffordshire copper mines.

If anyone would like a copy of the text (as and when finished) or information gathered for a particular area, please let me know via the website.

Lynne Mayers

Country diary: clear skies where lead mines once spewed out fumes

High above Allendale on this frost-sparkling January day, two stone chimneys reach up into a clear blue sky. Built in the 19th century, they exhaled fumes from horizontal flues that ran from a lead smelter more than two miles below on the valley floor. The flue lines can still be seen, bulging like veins across the fields. In places they have collapsed, revealing arched interiors where lead and silver would condense to be intermittently scraped off and recovered.

The Allen valley is far less populated now than it was in the busy lead mining days. From this high point on Dryburn Moor I look out across a quiet dale parcelled up by drystone walls, farmhouses sheltered by Scots pine woods and a drove road that curves over the hillside. There's a far horizon of uplands and ridges and, in the distance, beyond the long trough of the Tyne Valley, is the white-crested wave of Cheviot. Snow lies on Cold Fell to the west and bleaches the level summit of Cross Fell in Cumbria. It's an exhilarating near-360-degree view.

One slender chimney stands on the flank of the hill. The one on the fell-top is fatter and chunkier. I remember they were in a fragile state until the lower one collapsed during a storm in 1994.



Allendale chimney.

Both were rebuilt by the North Pennines Heritage Trust the following year. Now a single polypody fern has latched itself between the stones.



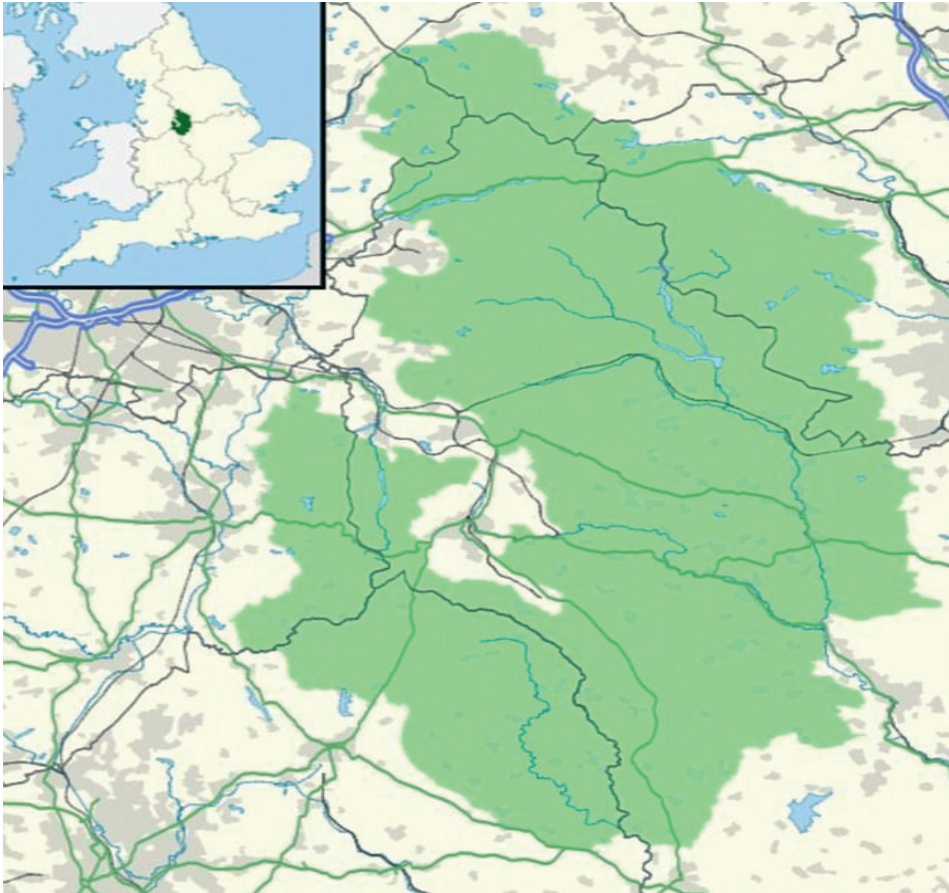
Allendale chimneys, Northumberland: The flue lines from the smelter in the valley can still be seen, bulging like veins across the frosty peatland

On the surrounding peatland, rich colours show through the sprinkling of gritty snow: mosses, olive-green and emerald, heather stalks tinged purple-red, ochre rocks littering the path, and creamy lozenges on frozen puddles. The spent tops of the ling have been doubled in size by spiky frost crystals. The moorland grasses have faded to a pale straw. When I walk here in summer the air scintillates with the trilling of skylarks, the sad sweet cries of golden plover and lapwing. Today there's no wind and it's unusually silent, but for our footsteps on the crunchy snow grains, a dog barking miles away down in the valley and the red grouse chuckling and churring.

The Guardian. Jan 2018.

Church of England insists it has mining rights of an area the size of the Lake District - even though it doesn't own the land

The Church of England has laid claim to over half a million acres of underground mineral resources, it emerged last night. Since 2010 the church has registered ownership of privately owned land covering an area the size of the Lake District, including in regions earmarked for fracking, it has been claimed.



Thousands of people have allegedly been warned that they do not own potentially valuable deposits under their land.

In most cases, this is land that the church used to own but is now held privately, according to The Times.

The church has insisted it has no plans to profit from fracking, although ancient property laws give it the right to cash from the extraction of stone, metals and other minerals in the earth.

A recent report by the church's investment bodies concluded that there was no Christian reason to object to the extraction of underground resources as long as the environment and local communities were protected.

The church cannot profit directly from fracking because shale gas, such as oil, is owned by the Crown. But lawyers have suggested that it could seek compensation from fracking companies that want to drill through its minerals.

Land Registry data reveals that the Church Commissioners have filed claims to 'mineral rights' in 5,773 locations in eight years.

Since 2010 the church has registered ownership of privately owned land covering an area the size of the Lake District (pictured), including in regions earmarked for fracking, it has been claimed

minerals' in five sites around Retford in Nottinghamshire – all of which fall within 'shale prospective areas'. A change in the law in 2013 meant that mineral rights may be lost if not logged with the Land Registry. A spokesman for the Church Commissioners said: 'Our mineral rights registrations have no relation to fracking as all oil and gas deposits in the UK are owned by the Crown.

'There are absolutely no plans for us to exploit our land or mineral rights for that purpose.' They added that they were not claiming new rights and we require to register existing rights 'so that the Land Register will show who owns the surface and, where severed, who owns the minerals interest'.

These include the rights to 'all mines and

The Mail Online. Jan 2018.

GIANT MAGNET WILL BE USED TO MINE SEABED IRONSAND OFF TARANAKI COAST

A landmark decision will allow a mining company to dredge 50 million tonnes of Ironsand a year from the South Taranaki Bight using a giant magnet, the Environmental Protection Authority says.

The EPA today released its decision in favour of Trans Tasman Resources consent application lodged 12 months ago. The final decision was split 2:2 between the four members of the decision making committee, with chairman Alick Shaw, making the casting vote to approve the application.

The company's application for consent covered an area of 66 square kilometres between 22km and 36km off the west coast of South Taranaki within New Zealand's exclusive economic zone.

The proposal to mine and export titaniferous iron sand was called "a sustainable and world leading development" and would have little environmental effect, the company said. It had been opposed by Kiwis Against Seabed Mining (KASM), Patea - based iwi Ngati Ruanui, and Talley's Fisheries who also submitted against the mining when a previous application by TTR was declined by the EPA in 2014.

KASM and Ngati Ruanui said they will appeal the decision. Last year a 6000 signature petition was presented to parliament by KASM and Ngati Ruanui calling for a moratorium on seabed mining.

R.S.C. International Mining {Edited}

NMRS - Newsletter May 2018

What is Metallurgical Coal?

Metallurgical coal, also known as coking coal, is used to produce coke, the primary source of carbon used in steelmaking. Coal is a naturally occurring sedimentary rock formed over millions of years as plants and other organic materials are buried and subjected to geological forces. Heat and pressure cause physical and chemical changes that result in carbon-rich coal.

Metallurgical Coal

Metallurgical coal differs from thermal coal, which is used for energy and heating, by its carbon content and its caking ability. Caking ability refers to the coal's ability to be converted into coke, a pure form of carbon that can be used in basic oxygen furnaces. Bituminous coal - generally classified as metallurgical grade - is harder and blacker, and contains more carbon and less moisture and ash than low-rank coals.

The grade of coal and its caking ability are determined by the coal's rank - a measure of volatile matter and degree of metamorphism - as well as mineral impurities and the ability of the coal to melt, swell and resolidify when heated. The three main categories of metallurgical coal are:

1. Hard coking coals (HCC)
2. Semi-soft coking coal (SSCC)
3. Pulverized coal injection (PCI) coal

Hard coking coals like anthracite have better coking properties than semi-soft coking coals, allowing them to garner a higher price. Australian HCC is regarded as the industry benchmark.

While PCI coal is not often classified as a coking coal, it is still used as a source of energy in the steelmaking process and can partially replace coke in some blast furnaces.

Coke Making

Coke making is effectively the carbonization of coal at high temperatures. Production normally takes place in a coke battery located near an integrated steel mill. In the battery, coke ovens are stacked in rows. Coal is loaded into the ovens and then heated in the absence of oxygen up to temperatures around 1100°C (2000°F).

Without oxygen, the coal does not burn but, instead, begins to melt. The high temperatures volatilize unwanted impurities present in the coal, such as hydrogen, oxygen, nitrogen, and sulphur. These off gasses can either be collected and recovered as by-products or burned off as a source of heat. After cooling, the coke solidifies as lumps of porous, crystalline carbon large enough to be used by blast furnaces. The entire process can take between 12 and 36 hours.

Properties inherent in the initial input coal heavily influence the ultimate quality of the coke produced. A lack of reliable supply of individual coal grades means that coke-makers today often use blends of up to twenty different coals in order to offer steelmakers a consistent product. Approximately 1.5 tonnes of metallurgical coal are required to produce 1 tonne of coke.

Coke in Steelmaking

Basic oxygen furnaces (BOF), which account for 70 percent of steel production worldwide, require iron ore, coke, and fluxes as feed material in the production of steel.

After the blast furnace is fed with these materials, hot air is blown into the mixture. Air causes the coke to burn, raising temperatures to 1700°C, which oxidizes impurities. The process reduces the carbon content by 90 percent and results in a molten iron known as hot metal. The hot metal is then drained from the blast furnace and sent to the BOF where scrap steel and limestone are added to make new steel. Other elements, such as molybdenum, chromium or vanadium can be added to produce different grades of steel.

On average, about 630 kilograms of coke are required to produce 1000 kilograms (1 tonne) of steel.

Production efficiency in the blast furnace process is highly dependent upon the quality of raw materials used. A blast furnace fed with high-quality coke will require less coke and flux, lowering production costs and resulting in a better hot metal.

In 2013, an estimated 1.2 billion tonnes of coal was used by the steel industry. China is the world's largest producer and consumer of coking coal, accounting for about 527 million tonnes in 2013. Australia and the USA follow, producing 158 and 78 million tonnes, respectively.

The international market for coking coal, not surprisingly, is highly dependent on the steel industry. The price per ton of coking coal grew steadily from around US\$ 40 in 2000 to over US\$ 200 in 2011, but have since fallen.

Major producers

BHP Billiton, Teck, Xstrata, Anglo American and Rio Tinto. Over 90 percent of the total seaborne trade of metallurgical coal are accounted for by shipments from Australia, Canada, and the US.

Sources.

Hardarshan S. Coke Production for Blast Furnace Ironmaking. Steelworks. www.steel.org

World Coal Institute. Coal & Steel (2007).

Submitted by a member.

The recent changes to UK water abstraction legislation are expected to have a huge impact on quarry, mine and construction operators.

Under the rules of the Water Resources Act 1991, operators must now hold a formal licence to legally abstract over 20m3/day for activities that were previously exempt. This includes de-watering of mines, quarries and engineering works, and all forms of irrigation. The changes are part of the Government-backed initiative to manage our water resources more effectively and reduce impact on the environment. Andrew Rollo, head of energy at Alnwick-based George F White, said: "It's a major shake-up for construction and mining firms as any new license required can take up to four months to secure. "Planning ahead is therefore absolutely critical as failure to follow the new legislation will leave companies facing increased costs and delays which is the last thing you want with large-scale operations and time-critical projects."

Northumberland Gazette. Feb. 2018.



Campaigners and local residents in northern England have urged ministers not to let the schemes go ahead as the UK phases out coal power. Campaigners and local residents are calling on the Government not to let new open cast coal mining projects go ahead, as the UK moves away from the fossil fuel.

In a letter to Communities Secretary Sajid Javid, residents from County Durham and the Coal Action Network campaign have urged him to revoke planning permission for a surface coal mine in the area. International commitments to tackle climate change under the Paris Agreement, and the Government's pledge to phase out polluting coal for electricity, mean that the fossil fuel has "no long-term future", they argue. As a result, ministers should not put local people's health and the environment at risk by allowing new open cast coal

mines to go ahead, they said. "If it fails to intervene in these projects, the Government will allow local people's health and ecology to be needlessly and permanently damaged" says Anne Harris, from Coal Action Network.

Banks Group has permission to mine at a new site, Bradley, near Dipton and Leadgate in County Durham, which the campaigners want the Communities Secretary to revoke using powers under the Town and Country Planning Act. And the company is waiting for a decision from Mr Javid on a controversial mining scheme in Druridge Bay, Northumberland.

The call by campaigners to halt both projects comes as coal makes up an increasingly small share of electricity generation in the UK, ahead of the Government's promised deadline to phase out coal power by October 2025. The UK and Canada have also launched an international coalition to encourage countries and states to move past coal power, called "Powering Past Coal". Anne Harris, of the Coal Action Network, said: "The 2015 Paris Agreement and the sharp decline in coal use this year indicate there is no long-term future for coal. "If it fails to intervene in these projects, the Government will allow local people's health and ecology to be needlessly and permanently damaged, and risk its reputation as an international leader in 'powering past coal'."

Tom Davison, who lives 150 metres from the Bradley site, said the community returns being offered by the company would not balance out the lasting damage the scheme would do. "We have moved onto other forms of cleaner energy for the good of our global climate, so why is it worth harming the local wildlife and local economy for one last money grab," he said. Lewis Stokes, community relations manager at The Banks Group, said of the Bradley project: "We understand that some people living close to the proposed site have raised questions and concerns about the project. "However, we have a proud history of working and restoring over 110 sites and working with the local communities to ensure their concerns are addressed and we have already started to do this at the Bradley site.

"Many of the comments we've been getting on the doorstep from residents recognise the importance of bringing new employment and supply chain opportunities to the area, and of the positive, long-term impact that the project's community benefits fund would have on the facilities available to local people." And he said "high quality well mined indigenous coal has a vital role to play" in the move towards a low-carbon economy. "The Government's own projections state that coal will continue to be an important part of the UK's energy mix until at least 2025, and substantial amounts are also essential for a wide variety of important UK industrial processes, such as the manufacturing of cement and steel. "Taking on the existing planning approval for the Bradley surface mine has been identified as one of a number of different options for how we can meet our continuing high customer demand for coal, and we will ensure local people, businesses and community groups are kept fully informed of progress as it is made."

"if it fails to intervene in these projects, the government will allow local people's health and ecology to be needlessly and permanently damaged"

Update. On the 23rd march 2018 it was reported that this application had been refused.

Belfast Telegraph. Digital Feb 2018.

Ambitious bid to raise £650,000 and save Fred Dibnah Heritage Centre



A builder has set an ambitious target of raising £650,000 to keep the Fred Dibnah Heritage Centre open.

Lee Clark, who lives in Norris Street, Little Lever, visited the museum recently with his seven-year-old son William after learning about owner Leon Powsney's decision to put the building and all of Fred's old tools up for auction.

Mr Clark, a lifelong Fred Dibnah fan, now wants to rally the community to raise enough money to purchase the centre. The 35-year-old said: "I have been a fan of Fred Dibnah since I was a boy and I thought I would take my little boy along to see his old home. "It has been playing on my mind a bit. It would be so sad to see it go. Once it's gone, it's gone. "I want to try and turn that place around. It is a lot of money but I think it is worth trying." Mr Clark has attempted to get hold of members of Bolton Council to see if he can get them on board. And he said he would welcome contact from anyone willing to help.

Mr Powsney announced in October that the heritage centre would be closing and everything would be auctioned off, citing personal reasons. The items include a working Victorian engine and Fred's old tools and gear. He said: "It has been a privilege knowing that the heritage centre has brought pleasure to many thousands of people from all around the UK and to many visitors from around the globe, including the USA, Canada, Australia, Holland, Germany, Belgium and New Zealand, all of whom would not have had the pleasure of visiting their hero's home otherwise. "For personal reasons that I will not go into at this time I have decided that it is time for me to take a long awaited and well earned break."

Update. It has been reported that the wooden Head Gear from Fred's own mine shaft is to be relocated at the Lancashire Coal Mining Museum. So we can be presumed that this bid has been unsuccessful.

The Bolton News. Feb 2018.

Irish plasterboard maker invests €8m in quarry development

Gyproc, an Irish plaster and plasterboard manufacturer which is based in Cavan and is owned by the Saint-Gobain group, will invest the €8 million as part of the development of its quarry in Knocknacran, Co Monaghan. Following the development Gyproc will recommence operations in the quarry, ensuring it has access to a long-term supply of gypsum rock which is used to produce plaster and plasterboard.

Work on the site is set to continue until June this year, and 44 jobs will be created during the working period.

Brian Dolan, the managing director of Saint-Gobain construction products in Ireland, said the announcement was "significant" as it ensured the company had "long-term access to the necessary raw material to continue meeting high levels of demand for Gyproc products".

"This, in turn, helps to ensure the future of our factory in Kingscourt, and allows us to plan accordingly. In addition, we are also delighted that this investment will benefit the local economy with the creation of 44 jobs during the development period."

Gyproc has manufactured in Ireland since 1936, and has been involved in construction projects including the National Convention Centre, the Bord Gáis Energy Theatre and Dublin Airport's Terminal Two building. The company employs 220 people between its Dublin head office and its Cavan-based factory.

The Irish Times. Feb 2018.



Knocknacran Quarry

A history of quarrying in Jersey



Collecting quarry stone for road surfacing. Jersey.

Jersey has three main colours in granite: red, pink and white, the shade of the stone being dictated by the impurity of the feldspar. Local granite is softer than the Guernsey green, but is harder than the Scottish granites, and for this reason the latter is imported for use in graveyard furniture.

The use of the colourful local granite has done much to enhance the Island, so much more than the dank black granite achieves for Guernsey. Complementary to the hard granite is the soft rotten granite which was quarried in large amounts as gravel. A most splendid example of this stone may be seen at the lower end of Les Varines, in St Saviour, where the walls forming the sides of the road may be presumed to be, upon passing by, of solid red stone. Upon closer inspection, however, it crumbles at the slightest touch. Granite is, by virtue of its hardness, difficult to produce in large quantities, and so, to provide the large quantities necessary to satisfy the demands made by the 18th and 19th century housebuilders, quarries for an inferior secondary rock, Diorite, were opened up. This stone is softer than granite, and may be dressed in a very short time with very little work. It was used for walls of gardens and houses, in the latter being used with cornerstones of granite or of the 'new fangled' bricks.



The Rive family quarry provided stone for construction of Victoria avenue in the 1890s.

This article by Robin Cox was first published in the Jersey Topic magazine in 1966

It is quite impossible to state when the first quarry opened in the island. Quarries were opened up, where and when the stone was needed. Jersey is blessed with a wide range of natural products, and it is pleasant to see how little the island has suffered despite the many centuries of quarrying

Five products

There were five products for which the island was famous, many years ago, only one of which is still extracted in any quantity. The best known is granite, a primary rock, composed of crystals of quartz, feldspar and mica, all closely united.

Also to be found in the Island were deposits of china-clay stone. This seems to have been discovered in 1872, when the railway was being pegged out at Blanches Banques. This clay was shipped out in large quantities to the North Staffordshire potteries. The fifth product taken from the ground in large quantities was clay for brick making, which was, at one time a very important industry in the island.

The individual quarries

Snow Hill

Let us now examine the quarries in greater detail. The nearest to the Town Church, of any size, was that which became the terminus of the Eastern Railway, at Snow Hill. While not strictly a quarry in the truest terms - being an excavation - the stone which was blasted out from beside Fort Regent was put to good use in forming the bed of the railway line and in the construction of the station buildings.

cont

South Hill

South Hill Quarry was for many years, the scene of work by the War Department, who took stone from there to build many of the forts which are to be seen around the Island today. In later years, civilian contractors took over the extraction of the stone, and much was used as rubble filling for the harbour extensions and the making of concrete blocks. After the end of the 19th century the quarry became deserted until the 1920s, when the unemployed were detailed to fill it in. It has been a source of wonderment how thousands of pounds could have been spent by our planners in an effort to site a swimming pool on a quarry which was filled up in their lifetimes, and yet no one seemed to know it was ever there.

St Catherine

A vast quarry of conglomerate stone (stone composed of sea-washed pebbles) was opened up at Verclut, St Catherine, by the Government. They had, in 1845, purchased large areas of farmland near Verclut, and over the course of ten years extracted many thousands of tons of stone for use in the St Catherine harbour scheme. As could be expected, loads were tipped into the sea, in an effort to form a base for each arm, but were swept away by the tides. More and more stone was thrown into the sea, and at last a bed, suitable for the construction of the Verclut arm was finished. A similar quarry at Archirondel was opened, the stone being conveyed beneath the road, through a bridge which may still be seen. But before this arm could be completed the whole works were abandoned.

Mont Mado

In the north of the Island stands the largest quarry of all. That of Mont Mado. Had it been worked as one large quarry, it would have presented a magnificent spectacle. But throughout its history it has been worked as a series of little quarries, each, as it became exhausted, being allowed to flood. Many of the oldest buildings in Jersey can boast large quantities of Mont Mado granite, often recognisable by its magnificent deep red colour. Today small quantities of the red stone may still be obtained from Mont Mado for special work, but the main part of the quarry is now controlled by the Sewerage Board and used as a tipping place. All manner of unwanted things are thrown into Mont Mado, buses, cars, threshing machines and furniture, have all at some time been employed in filling it up.



Ernest Baudoux
Mont Mado Quarry in the 1870.

Ronez

Taking the place of Mont Mado for the supply of roadstone, but in a different way, is Ronez Quarry. Situated on the coast, at Ronez, this quarry was opened in 1902 to supply a grey roadstone. Since that date, thousands of tons of granite chippings have been exported to England for use on roads.

Although stronger than the ornamental granite, this grey stone has no natural grain, and is quite unsuitable for special work.

This quarry was kept at full work throughout the War, under different 'management', supplying stone for blockhouses, the Airport extensions of 1941 and railway ballast.

La Saline

A little further along the coast, towards the east, is the little quarry of La Saline, where fine ornamental work is still practised. All the granite kerbstones for the North Marine Drive were made here during the War.

L'Etacq

In St Ouen, there is to be found one of the last traditional quarries at L'Etacq. It has recently been purchased by the management of Ronez Quarries, and since then the products of the parent quarry have been considerably enhanced by the incorporation of L'Etacq chippings in the work. The stone from L'Etacq is mainly of the white birds-eye granite and its manner of extraction has changed little through the years, save for the introduction of power tools.

The stone is still brought down with explosives, and is cut into manageable pieces in a very simple manner. A row of holes is drilled along the granite and each is filled with three steel wedges, one wedge remaining proud above the other two. The upstanding wedges are tapped in turn with a light hammer until the block falls open, as though it were of slate. The now smaller pieces are then sawn with a diamond saw to the required size. The old method of splitting the stone was to chisel the holes in the granite and fill each with a peg of wood. The wood was then soaked with water, and the quarrymen would retire for the night. Upon their arrival at work in the morning, the block would be found to be split from top to toe — by the force of the expansion of the water-soaked wood.

cont

On the other side of the valley, may be seen the North-western or La Tchehault Quarry. Some years ago the land was the subject of a dispute between the owner of the headland and the quarry owner. The owner alleged that work had been taking place far into her land and won her case. The quarry has since lain empty and is a picture of complete desolation. Old omnibuses and quarry trucks lie littered over the floor.



Splitting stone by hand at l'Etacq.

in London. After this the company went into liquidation and the quarry remained deserted until 1884, when the new railway opened up a quick route to the harbour, and stone once more was shipped from the island to England, for paving purposes. Among local uses for the stone there were the Harbour Works, and in 1890 the demand for a suitable stone for the Victoria statue was satisfied by La Moie



Nicklin's Quarry at Westmount

There have been rumours that work was to restart on a concrete block manufactory, but nothing has resulted. Between the two quarries there stand large concrete bins. These relics of war, in which the Germans stored crushed granite, were connected with both quarries by means of elevated railways, supported on piers, which in turn were supported on concrete sleepers which may still be seen. On being filled, trains would leave the bins for any part of the Five Mile Road, where many fortifications were being constructed.

La Pulente

The Five Mile Road is well scarred with quarries, most of which were worked up to the war. In La Pulente Quarry there stands the remains of a steam crane, which was moved to its present site after spending many years on the 'dump' in connection with the filling up of the Old Harbour, for the second time. The quarry supplied all the material needed by the Department of Labour in constructing the walk around Petit Port, until the whole area was sealed-off by the Germans.

La Moie

In this area is also to be found the magnificent Le Quesne quarries at La Moie. Situated off the Route du Sud, near Corbiere, they were opened in the 19th century, supplying high class pink granite. For the early part of its existence the quarry was merely called on to supply small quantities of stone for ornamentation, but under the control of the Channel Islands Granite Company, the quarry produced much stone for the construction of the Thames Embankment

Quarries. At the turn of the century the fortunes of the quarry changed. Improvements in road construction in England no longer called for granite setts but the bread-and-treacle of tarmacadam. The quarry was offered for sale, but as there were no buyers, the land was presented to the States on the condition that it was left as it was. Despite the Waterworks Company's idea to build a desalination plant in the quarry, visitors there may still see the gantry and yards of steel hawser by which the hewn stone was lifted to the brink of the workings for loading into railway trucks.

Portelet

Portelet Quarry was also operated by the Channel Islands Granite Company, and supplied stone for the sea wall at West Park. The stone was carried around by barge and left on the beach until work started.

Nicklin's Quarry at Westmount St Brelade's Bay

The whole backcloth to Woodford at St Brelade's Bay is formed by what was a very large quarry. It is most far-seeing of the Public Works Committee to site the memorial to Sir Winston Churchill on land which forms the floor to a quarry, which in the 1840's supplied stone for the building of the Houses of Parliament in London.

cont

Gallow's Hill

Back in St Helier there were many quarries around the foot of Mont Patibulaire – Gallow's Hill. Here is still to be found the Parish Quarry, and were to be found the famous Horseshoe Quarry with its rustic bridge, and Nicklin's Quarry near the Cholera Ground. These quarries concentrated on supplying sets for street paving. Most of this work finished on the laying out of People's Park in the 1860's.

Gigoulande

Inland, St Mary's, or Gigoulande Quarries, now produce many different types of granite concrete products.

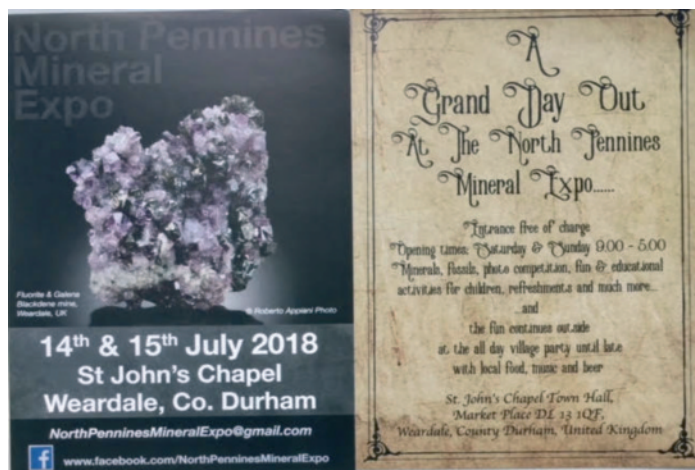
China clay

Handois in Waterworks Valley was Vatcher's China Clay quarry, Clay was first found at St Brelade and the vein was found to be abundant in St Lawrence. Work started in the 1870's on its removal at Handois and Col Vatcher announced that he would construct a horse tramway from St Helier to St Aubin along the main road, with, as he called it, an important spur leading to his quarry to bring an occasional load of clay to the boats. "Occasional load!" retorted an observer, through the columns of the British Press. "Don't you believe it! It is more likely to be an occasional tramcar to St Aubin while the road from Handois to town would be jammed with trucks full of china clay". Colonel Vatcher, was not allowed to build his tramway.

Other clay was quarried at Mont a l'Abbe and Five Oaks, for the brickworks of Copp and Champion. Gravel was extracted in large amounts from the quarries at La Moie, which may still be seen from the Railway Walk.

The Island Wiki.

A Grand day out at St John's Chapel, Weardale, Co Durham



Our Society has a stand at this event the weekend of 14th & 15th July where we will be showcasing our publications and also providing fun and educational activities for children. Last year's event was a great success with plenty to do and see in the area. On the Sunday we have a NMRS meet arranged in the area and the small Weardale museum is also worth a visit. If in the area please come along and say hello to Rex and myself.

Barbara Sutcliffe.

Trevor Ford Memorial Meeting

According to the PDMHS April Newsletter, there will be a two-day Trevor Ford Memorial Meeting on 2nd and 3rd June. The Saturday lecture programme will be at the Derby University Buxton Campus (The Dome). Lecture topics are likely to include Trevor's interests including his work on Blue John and on Peak District Mineralisation. On Sunday 3rd June, there will be excursions hosted by local Geological Associations and guided tours of Magpie Mine by PDMHS. When finalised, the programme will be available on <https://pdmhs.co.uk>

An Ivor Brown Memorial Meeting is being planned for 27th October at Coalbrookdale.

Sallie Bassham.

Australian company in deal to search for gold in Northern Ireland

The Australian company Walkabout Resources is to expand its "Northern Ireland exploration footprint" after agreeing a new deal with a Turkish-owned mining firm to search for gold and other precious metals near Slieve Gallion.

Walkabout Resources has signed a joint venture (JV) agreement with Koza UK which held a mineral prospecting licence for an area about 20 km from the Curraghinalt gold resource, which is owned by Dalradian Resources and where the Canadian company wants to develop a controversial gold mine in Tyrone.

Dalradian is seeking planning permission for its underground mine which has been met with significant opposition from some local community groups and environmental organisations. Walkabout has only had a presence in the North since last November following its acquisition of an exploration portfolio from the British company Lonmin plc.

'Highly prospective'

This portfolio had included an existing JV arrangement with Koza in the Dalradian Gold Belt but Walkabout has confirmed it has also agreed a new Slieve Gallion JV licence with Koza which the Australian company claims is "highly prospective for base metal mineralisation and gold".

Under the terms of the deal, Walkabout could take control of 75 per cent of the Slieve Gallion JV with a minimum spend of US \$500,000 (£409,000) in exploration costs and a further 25 per cent following the publication of a feasibility study.

Trevor Benson, executive chairman of Walkabout, said the new JV supported the company's ambitions to "diversify into potential growth opportunities" and could expand its total exploration area in the North to 1,250km.

In a separate development the Australian group has also told shareholders that it has identified evidence of cobalt-copper-silver occurrences in the Slieve Gallion area. Mr Benson said: "The presence of potentially significant cobalt mineralisation, in a stable jurisdiction such as Northern Ireland, further enhances the value of our diversified portfolio."

The Irish Times. Feb 2018.



Upper mine floor. Showing separating and crushing plant. {2013}



Brush Co. Electrical generating plant and water tank. {2013}



Collapsed shaft with illegal landfill. {2006}

Esgair Mwyn Mine

The upper Ystwyth basin of Northern Ceredigion has long been worked for its natural resources of lead, zinc, copper and silver, which were once shipped across the world and helped feed the Industrial Revolution in the smelters and factories of South Wales. Of the hundreds of mines which once brought wealth and prosperity to the region, however, none are worked today: the proliferation of cheap lead and zinc from overseas had effectively killed the industry by the end of the Second World War. In the whole of Ceredigion, only one mine carried on into the second half of the century, a small operation surviving against all odds until the mid 1990s. The exact age of Esgair Mwyn (occasionally Esgair Mŵn) mine is unknown, but local place names suggest that the area has long been known for its rich deposits of ore. Certainly, the fact that the mine had apparently been abandoned for centuries' by the time it was re-discovered in 1746 suggests a mediaeval, if not earlier origin. The mine's discovered at this time was Lewis Morris, deputy steward for the Crown Manors of Cardiganshire. After some initial trials, Morris and his men located a vein of solid ore some 7" thick just a few feet from the surface which he allowed three local miners to work for twelve months provided that they paid the Crown 10's for every ton extracted. Morris himself joined the venture in the Autumn of 1751 and a total of 1,000 tons of ore was won from the rock that year.

After the twelve-month bargain expired, Morris worked the mine himself for a further nine months with a considerable success which did not go unnoticed by his rivals: on 23rd February, 1753 a small army of tenants and miners from the Grogwynion mine led by John Ball from the Company of Mine Adventurers and infamous local magistrate Herbert Lloyd of Peterwell marched on Esgair Mwyn demanding that Morris and his workmen surrender the mine, which they believed to be their property. Lloyd held a cocked pistol to Morris' head, forcing him to relinquish the property and had him arrested. Ball took over the mine and carried away £3,000 worth of ore and Morris was sent by Lloyd to Cardigan Gaol. The forcible takeover of the mine caused outrage in London, and orders were given for Morris' immediate release. Herbert Lloyd and the other magistrates who had had Morris imprisoned were struck out of commission and a detachment of the Royal Scots Greys was sent to guard the mine. A subsequent court case found that the land had always been, and should remain, crown property. Despite the theft of ore and the violent actions of the mob, no-one was prosecuted.

In 1756, the mine was let to Lord Clive (better known as Clive of India) at a rate of 50% on all profits (later reduced as the mine was making a large loss). The returns were meagre until 1766 when an Adit reached the old workings and drained away a large accumulation of floodwater. By 1788 the mine was run by John Probert, who oversaw a decline in productivity



The remains of the Mill. {2013}

brought about by the exhaustion of the easily accessible deposits, some £150,000 of lead ore having been removed since 1751. Working continued only sporadically until 1850, when the Esgair Mwyn Mining Co. took possession of the property from the Crown. The company extended the existing Penmynydd engine shaft to 75 fathoms under Adit, draining more of the old workings and installed a new dressing mill in 1852. Around 1878 a new shaft (Penmor) was sunk to the west of the main complex and an inclined plane was built to link it to the dressing floors further up the hill. By this time the mine also comprised an extensive system of aqueducts and tramways as well as a smithy and engine house. Unfortunately for the company, the mine did not reward these investments with significant profit. In the 1890s, lead prices slumped dramatically and the mine, like many others in the region, was forced to close.

The plant was acquired by Thomas Ward of Sheffield with the intention of dismantling it for scrap, but he was persuaded instead to resume working the Penmor ore body which at 104 fathoms under Adit was found to be particularly productive. Below this two lower levels were accessible by winzes (underground shafts excavated downwards) so that the total depth amounted to about 165 fathoms, being the deepest workings in Cardiganshire. Despite having no direct route from lode to surface, meaning that raising ore took three-quarters of an hour, Ward's operations proved surprisingly profitable until another dip in lead prices led to closure in 1927.

Esgair Mwyn stood abandoned for twenty years before, in 1947, the prospect of lead and previously unworked zinc ores discarded on the spoil tips prompted the Elineth Mining Company Ltd. of Newent, Gloucestershire to begin processing mine waste at the site. The company erected a new plant at the site comprising a rod-mill, shaking tables and flotation tanks to separate the ore together with new offices and workshops and a tramway from the tips to the top of the mill. Remarkably, the venture lasted until 1994, long after the last lead mines had closed in North Wales, when a broken rod mill and concerns over water pollution made working unviable.

The first word which comes to mind to describe Esgair-mwyn is 'bleak' - acres of cold grey, poisonous mine waste smother the hillside. Its toxicity and exposure to the wind and rain ensure nothing but tufts of scraggy grass will grow there. Here and there, sticking out of the eroded spoil heaps can be found personal items such as a leather strap with greening copper rivets or the corroded handle of an old fashioned tea-kettle. All else has gone, buried in the spoil or dissolved by the acidic water that drains from the mines.

At a height of almost 400m (1312') above sea level, the ridge enjoys its own distinct climate quite different to that of the valley below. In the long winter, rain can come at more or less any moment and the wind howls and roars around the crests of the hills in summer, the mine takes on a flavour of the American West, sun-bleached and desolate. It is easy to forget that uncounted generations of miners had to endure these conditions daily, with the added hazards of rock fall and lead poisoning, which led many to an early grave even after the metal's dangers were understood: a humbling thought.

**For full article go to: The Derelict Miscellany.
Refection's of Forgotten and Abandoned Spaces.**

**With kind permission of
D.A. Gregory.**

From Scottish Magma to Sochi Ice: The Geologic History of Curling Stones



Why granite from a Scottish island makes the best curling stones.

When the Winter Olympics commence this month in Sochi, Russia, there should be no shortage of heart-stopping action. Alpine skiers will carve downhill turns at 80 miles per hour. Hockey players will battle one another for the puck. Snowboarders will twist and flip multiple times in a single jump. And then there is curling, in which a more sedate bunch will push a 44-pound rock down a long sheet of ice and then sweep the ice with brooms to “curl” that stone toward a target.

Although curling is an Olympic newcomer, having been officially included only since 1998, the stones have a long, rich history of their own. “Every single Olympic curling stone comes from this little island off the coast of Scotland, called Ailsa Craig,” says Erika Brown, skipper of the U.S. women’s team. “And no other stone curls like an Ailsa Craig stone.”

The 220-acre island, about 10 miles from mainland Scotland, is the source of two varieties of granite used in elite curling stones. Blue hone granite makes up the layer that glides down the ice, and common green granite makes up the middle layer, or striking band. “The layer of rock that runs along the ice doesn’t chip or absorb water, but most important, it’s very predictable on ice—you know what your shots are going to do,” Brown says. “And the middle layer doesn’t break when the stones collide.” The

stones’ performance traces back to the island’s formation about 60 million years ago. Ailsa Craig is a volcanic intrusion—a mass of magma that forced its way up between existing formations—explains John Faithfull, a geologist at the University of Glasgow. The magma then cooled relatively quickly to form granite, and the surrounding rock eroded away, “leaving just the very resistant hard mass of Ailsa Craig poking up out of the water,” Faithfull says.

As the volcanic rock crystallized, it developed a strong, uniform surface. “When magma cools quickly, it creates very small crystals. These ones interlocked, and chemical bonds developed between them,” says Martin Gillespie, a geologist at the British Geological Survey. “It also doesn’t seem to have any microcracks,” he says of the granite.

The granite’s unique qualities make Ailsa Craig stones the “gold standard,” Brown says. “For us curlers, the island is a mystical place.”

Scientific American. Feb 2014.



The neo-Romanesque St Lambertus church was destroyed to make way for a mine

A 19th-Century Catholic church in a village in western Germany was destroyed on Tuesday to make way for a coal mine. St Lambertus church, known locally as a ‘cathedral’ due to its size, was torn down as part of the demolition of the village

The farming village was once home to 1,200 residents, but has been taken over by mining company RWE and relocated seven miles away. Houses and a new hospital have been built at the new site, and bodies exhumed from the graveyard have been reburied.

The church was notable for its double towers and neo-Romanesque design. It had not held a Mass since October 2013, when it was formally deconsecrated. RWE has built a replacement church according to a modern design in the new village. The area will become part of an opencast lignite mine.

Catholic Herald. Jan 2018.

Coal essential for UK business

The closure of British coal fired power plants could force the country to cut off electricity or gas to industry during extreme weather, according to Wood Mackenzie.

At the beginning of the month, the National Grid, which manages energy supplies, was forced to issue a “gas deficit warning” as the “Beast from the East” caused a scramble for gas supplies in order to fulfil the increased demand. During this time, the UK ramped up its coal usage to 23.8% of all output, in order to help fulfil demand and provide essential baseload power. However, the government plans to close these power plants by 2025, which Wood Mackenzie said: “raises an acute concern over the security of supply”, combined with a withering North Sea output.

In a new report, it said: “In five years’ time, with a significantly reduced coal fleet and UK gas production down 25 per cent, the gas market will struggle to balance during extreme weather events.” The National Grid has the authority to temporarily disconnect large industrial energy users in order to protect households. Wood Mackenzie said that if coal plants had not been running during the beginning of March, there might not have been enough gas to meet demand for heating homes and fuelling industry.

Murray Douglas, research director at Wood Mackenzie, said: “It’s likely that they would have had to look at either interrupting some of the power supply or some of the gas supply.” The recent figures show that while the government looks to increase the use of renewable energies, it is essential to ensure there is a steady supply of reliable and resilient energies to ensure the grid can continue to provide energy when it is needed the most.

Written by The Energy Advocate on March 20, 2018

Cleveland Ironstone Mining Museum

Following the thaw earlier this week, part of Cleveland Ironstone Mining Museum’s historic upcast building has suffered significant structural damage caused by the freeze-thaw effect. At 5am on the morning of 21st March, the domed roof of the 1910 upcast suffered structural failure.

Graham Banwell, Director of Operations and first on the scene, said “the public will be aware that this is a serious blow for our museum. However, we wish to reassure everybody that we are taking all appropriate safety measures and we are being fully supported by the appropriate authorities. Unfortunately, and with great regret, the museum site will be closed to the public whilst essential safety checks are carried out to ensure the structural integrity of the site.”

Father Adam Gaunt, chair of the museum trustees, said “this is a sad moment for us but we will emerge from this a stronger, more resilient museum and see this as an opportunity to strengthen and modernise our buildings and visitor experience.” We are pleased to announce that we will be running an exhibition over the Easter holidays. This will be at Loftus Town Hall from 29th March until Easter Monday (2nd April). This exhibition will be free to the public.

Little Tommy Plowright and Burnley's Mining Monument Fund Raising

The death of Little Tommy Plowright, aged 13 at Towneley Pit. Towneley Pit used to be on the housing estate now named ‘The Kilns’ off Rock Lane across from the top gates to Towneley

Hall. It was one of the first local pits to be closed down after Nationalisation in 1947 and dated from March 1869, when the first sod of the new pit was cut by Lady O’Hagan of Towneley Hall. In fact the pit shaft was named ‘Alice Pit’ after her. The colliery was worked by Towneley Collieries in 1883.

Between five thirty and six o’clock in the morning of Monday 19 March 1883, the miners and boys employed at the colliery were descending the 500 foot deep shaft as was usual. Amongst those was a group of young lads employed at the pit as drawers, aged from about 12 years old up to 17 or 18 years old. Their job was to take the laden tubs of coal from the colliers at the coal face to the haulage system to be taken up the pit. One of these lads was 13 year old ‘Tommy’ Plowright, the son of Henry Plowright, who also worked at the colliery and who lived Moseley Road. Tommy like all the others that day was carrying a Davy lamp to light his workplace.

But because of the ventilation draught in the pit shaft they all tucked their lamps under their coats so the flame wouldn’t go out. The cage reached the bottom of the shaft, and for some reason young Tommy Plowright turned the wrong way as he got out of the cage. He tripped and fell into a sump hole used to collect water under the actual pit bottom. He was heard cried out as he fell almost 25 feet into the sludge and debris below the pit cage. It appears that the young lad also hit some obstacle on the way down which broke his neck—he was killed instantly. The poor lad’s body was recovered, taken up the pit and conveyed to his house not far from the colliery. An inquest was held into the circumstances of the boy’s death the following day, Tuesday 20 March 1883, at the Royal Butterfly Hotel.

Mr Martin, the Inspector of Mines was present to watch proceedings, as was the boy’s father who gave evidence. Other witnesses were called and included one of young Tommy’s work pals, John Hargreaves, and a pitman named James Lord and a collier named William Burke. After hearing all the evidence the jury came to the conclusion that the lad was ‘Accidentally Killed’ On 24 March that year little Tommy, aged just 13 years old was finally laid to rest at Burnley cemetery. The boy was just one of hundreds killed whilst working underground in coal mines around Burnley over the decades. Mining was always considered a dangerous occupation. The Towneley Colliery was a particularly dangerous pit, and features most in the names of the men and boys who perished in Burnley coal pits.~ {Jack Nadin.}

Lancashire Evening Telegraph. April 2018.

It’s believed that more than 330 men and boys have lost their lives in the Burnley area since mining of the Lancashire coal seam started centuries ago. Now a group of people have formed a Burnley Mining Memorial Fund to raise enough money for a permanent epitaph in the town - a move backed by the local council.

While a suitable location is now actively being sought, the group has started a Facebook page, for money raising ideas, contributions and where design suggestions can also be put forward. Former miner Jack Nadin said: "There must be hundreds of former miners and families out there willing to help this worthy cause. We have set a target of £75,000 which we are confident will provide a lasting memorial to those who worked in the industry, in horrible conditions - so that we can record for ever the names of those who died in Burnley's pits."

If you would like to donate:

Telephone 07931936276,

or visit <https://www.facebook.com/groups/192905974652293>.

BRINGING A MINE TO LIFE

Exploration



From land permits to mapping and drilling, nothing gets started unless the grades coming out of the ground, work in their respective metals price environment.

Mine Design



A wide range of permitting and studies are required, including community relations, environmental impacts and how the metals will be extracted.

Mine Construction

Depending on the country and region, construction could include anything from power grids to roads to small aircraft landing strips.



Production

Once built, a ramp-up period is needed to get the mine rolling. During the mine life, exploration can be continued around the area, adding to existing reserves.



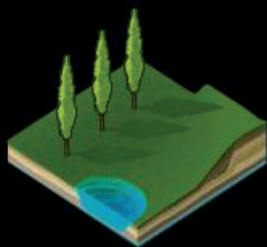
End Game

At the end of its lifecycle, ramp down of operations begins as equipment is dismantled and the mine is prepped for the reclamation process. This usually takes place with the local governments with an onus on environmental sustainability.



Reclamation

It's become standard practice to establish an environmentally safe area where the mine used to be. That may come in the form of reforestation, adding vegetation and ensuring no environmentally unfriendly agents remain.



[GIFS] The 5 Stages of the Mining Life Cycle

Mining operations are complex. They aren't your run-of-the-mill type projects. These billion dollar complexes consist of various interconnected projects, operating simultaneously to deliver refined commodities like gold, silver, coal and iron ore. It's a five stage process and we've broken it down using GIFs.

Exploration

The beginning of any mining project begins with the exploration stage. It's where the magic happens. Companies enlist geologists and others to prospect remote areas in search of mineral deposits. Methods such as geological surface mapping and sampling, geophysical measurements and geochemical analysis is often applied at an early stage to pin out potential deposits.

Mine-site design and planning

Once mapping and mineral resource data is collected, and the results are strong, the project can move forward to the design and planning stage. This typically consist of studies to help companies determine if and how a project can be safe, environmentally sound, economically viable and socially responsible.

Construction

If you build it, they will come. The construction process occurs after research, permitting and approvals are complete. Construction of mining sites involves building roads, processing facilities, environmental management systems, employee housing and other facilities.

Production

The two most common methods of mining are surface and underground mining. The method is determined mainly by the characteristics of the mineral deposit and the limits imposed by safety, technology, environmental and economical concerns. The first step in the production stage is recovering the minerals. This is

Cont

the process of extracting the ore from rock using a variety of tools and machinery. The second step is processing. The recovered minerals are processed through huge crushers or mills to separate commercially valuable minerals from their ores. Once processed, the ore is then transported to smelting facilities. The final step in production is smelting. This process involves melting the concentrate in a furnace to extract the metal from its ore. The ore is then poured into moulds, producing bars of bullion, which are then ready for sale.

Closure and reclamation

The fifth and final stage in mining operations is closure and reclamation. Once a mining site has been exhausted of reserves, the process of closing the site occurs, dismantling all facilities on the property. The reclamation stage is then implemented, returning the land to its original state. A comprehensive rehabilitation program has many clearly stated objectives which may include:

- ensuring public health and safety
- minimizing environmental effects
- removing waste and hazardous material
- preserving water quality
- stabilizing land to protect against erosion
- establishing new landforms and vegetation



Mining Global.

What is an ‘advantaged’ fuel, and why use them?

The fuel helping keep costs down, providing reliable, flexible power in times of need. Drax Power Station produces 17% of the UK’s renewable electricity, but it has a long history as a coal-fired generator. And while today around 70% of Drax’s output is from renewable biomass, there are still instances when coal is used – for example, at times of high demand, such as in the winter months. Beyond just meeting demand for power, maintaining some operational coal capacity until it can be replaced with more biomass or gas, also allows Drax to offer flexibility and grid stability through ancillary services such as inertia, reactive power and frequency management. Ensuring these remaining coal units run as efficiently as possible is key to Drax being able to economically provide support services to the grid. And for this, alongside more conventional coals it uses something termed as advantaged fuels.

What are advantaged fuels?

Advantaged fuels are coals outside of Drax’s conventional specification that are slightly more affordable than standard coals. Blending advantaged fuels with standard coal before burning allows generators to remain economical while meeting demand. At Drax, these include off-specification coal and mine remnants such as pond fines, which are produced from former deep mine sites. These are offered at lower prices than standard fuels because they often have a lower calorific value, meaning they produce less energy when burned, or are difficult to work with and transport. The benefit, however, is that power stations are able to ramp up generation as well as provide essential system services while remaining economical.

Getting the balance right.

Each time an advantaged fuel is used, the right blend must be found depending on how much and what type is being utilised to ensure maximum efficiency and reliability. This requires coordination across Drax between the fuel procurement team, aiming to source these lower-priced fuels, the materials handling and power generation teams who must quickly understand and resolve any issues surrounding fuel blends and the trading team, responsible for selling into the power market. The cost savings achieved from using advantaged fuels combined with the highly efficient units Drax Group operates, helps keep costs down and that means lower electricity costs for everyone.

But this doesn’t mean these fuels will be used for the long term. Drax is continuing to decarbonise its power generation business. At Drax Power Station where three of its six power units have been upgraded to low carbon biomass, trials were underway in the spring and summer of 2017 to test a lower cost way of converting one of the three remaining coal units to run on compressed wood pellets. The Selby, North Yorkshire site is currently consulting with its local community on plans to repower one or two coal units to run on another flexible fuel – natural gas. If constructed, the gas power plant could be joined by a large battery storage facility – one which could provide immediate power and system services to the country’s electricity system while the gas turbines power up in the minutes that follow.

Coal’s days in the UK are numbered – and this is certainly a good thing – but while it remains a necessary part of meeting winter demand and balancing the system, advantaged fuels will be key to keeping it an affordable one too.

Drax. Nov. 2017.

50 new jobs for Galmoy, North Kilkenny

Galmoy lead and zinc mine in North Kilkenny is to reopen with the creation of 50 jobs. And this time, the ore taken from under the ground will be processed elsewhere, allaying fears of environmental issues.



Galmoy Mine as it looks at present.

Shanoon Resources Limited revealed their decision to reopen the facility at a private meeting with Kilkenny County Council on Monday. The company said that subject to the necessary approvals, and consultations with the residents of the area, it intends to have the mine open in the second half of 2019.

In a statement it said there will be significant spin-off employment in the Kilkenny area and beyond. The company was granted three prospecting licences in early 2017 and recently completed a diamond drilling programme. It is satisfied, from its extensive investigations to date, that significant untapped resources of zinc are available in the area of its licences and will now seek to exploit them. Shanoon Resources Ltd intends to apply for the necessary regulatory consents and will be submitting a planning application in the coming weeks.

An Environmental Impact Assessment Report (EIAR) for the resumption of mining will also be submitted with the planning application and a Scoping Report has already been issued to the relevant regulatory agencies.

Shanoon Resources is an Irish owned company headed by the highly regarded team of John Elmes and Alan Buckley. The company's management and board is very experienced in exploration, development, construction and operation of Irish mining projects.

The Kilkenny People. Mar 2018

Neath Port Talbot: coal mine to create 200 jobs

An underground drift coal mine in Neath Valley is set to reopen, creating up to 200 jobs.

About 300 people lost their jobs in the three years running up to production being stopped at the Aberpergwm Colliery, near Glynneath, in 2015. However, new investors have come forward with the aim of restarting coal production at the site. Neath Port Talbot councillors voted unanimously to approve the planning application on Tuesday.

The application had previously been approved in 2015 but final legal agreements were not signed off due to a change in ownership of the site and changes in the coal market. Hugh Towns, minerals advisor for the council, told councillors the company, Energybuild, had been owned by Canadian firm Walter Energy, which went into administration. However, in the past six months a firm of investors had bought Energybuild, which would now be a standalone UK company.

It is anticipated 115 jobs will be created in the first year of operation, increasing to 200 jobs by the fifth year.



Production at Aberpergwm colliery has been supplemented since 2005 by opencast coal mining.

Monitoring sites

The applicants propose to invest an initial £10m with the aim of producing a million tonnes a year, and possibly more.

Councillors welcomed the reopening of the mine but raised concerns over how well the council could monitor potential breaches of environmental planning conditions. Planning officer Steve Ball said the monitoring of mineral sites was being done by Carmarthenshire County Council and there were procedures in place to ensure the development had no unacceptable impact. A liaison committee will be set up involving councillors, minerals officers, and representatives from Energybuild.

Aberpergwm first opened in the late-19th Century, and at its height during the 1930s employed more than 1,500 people. It shut in 1985 but reopened a year later under private ownership. The mining activity at Aberpergwm has been supplemented since 2005 by opencast coal developments on the high ground above the mine site.

BBC. News Mar 2018.

Where did the stone for the Headstones and Monuments for the dead of the First World War Graves come from?

On a recent visit in this the centenary year of the Commonwealth War Graves of WW1 in Belgium and France. By me and my three brothers, Gary, Kieran and Shaun. We were all deeply impressed and humbled by the orderliness and sheer number of headstones in the cemeteries. It truly is a awe inspiring and breathtaking sight! How pleased we were to both find and be able to pay our respects to two of our relatives remembered there. Upon returning home and reflecting on the things we experienced, it raised a few questions in my mind.



Left. Kieran, Gary, Shaun, Graham. {Grave stone of John Topping}

1. What type of stone was used for the head stones?
2. Who carved all the inscriptions?
3. Where did the stone for the monuments come from?
4. Was more than one type of stone used?

History records that there was over one million deaths as a result of the conflict, with nearly all being buried on or in the vicinity of the battlefields. This gave rise to a tremendous demand for high quality headstones at the end of the World War One. Also the many monuments that are scattered around the battlefields would all require high quality stone for there construction.

In total there is nearly 1.3 million names engraved on monuments like the Menin Gate Ypres and the individual headstones in the various cemeteries. For this reason the chosen stone would have to be, easy to carve, durable and consistent in colour and texture. By 1921 over 1,000 cemeteries had already been established, this required the supply and preparation of 4,000 headstones a week to be shipped to Belgium from Britain. This continued until 1927 when most of the cemetery construction was completed. The original stone that was chosen was Portland stone mined from old quarries such as Perryfield and Broadcroft on the South Coast of England. The demand was so great that another source had to be found. Hopton Wood Quarry near Middleton-by-Wirksworth in



Underground at Perryfield mine Portland.



Hopton wood Quarry.

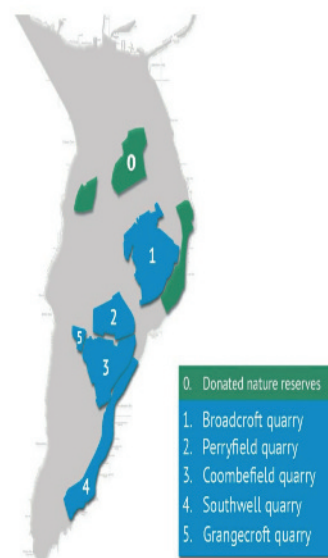
Limestone quarry

Our Portland limestone quarries hold the remaining stone reserves.

Portland Stone Firms own 5 limestone quarries on the Isle of Portland, with a comprehensive range of iconic stone beds available for your projects.

With over 150 years of reserves we can guarantee the future supply of our award winning stone. For more information on [bed types](#) being actively quarried, see our [stone range](#).

We have donated significant land areas for nature reserves and are currently working towards creating a green corridor across the Island.



Derbyshire was chosen. This mine produced around 120,000 Limestone headstones which were also shipped to Belgium.

The stone from this quarry also supplied high quality Limestone to the building industry until 2006 when it closed. Examples of this can be seen in Westminster Abbey, The Houses of Parliament and Chatsworth House. This stone is of such high quality that it can be polished and is often mistaken for Marble. It is also relatively easy to carve and very hard wearing. The main quarry was underground and 25 miles of tunnels under the moors to the West of Middleton are recorded. Today there is still some remnants of headstones built into the walls around the quarry but little else remains of this quarry.

In recent times many headstones have been replaced due to the weathering of the original Portland Stone. The chosen stone used at present is Italian Botticino Limestone. An example of this is the Bayeux War Cemetery, Normandy where all the original 4116 Portland headstones have been replaced with Botticino Limestone.

When the War dead are repatriated to their home country local stone or material is often used. For example, in Scotland granite is often used, Canada also uses local granite, many war graves in Wales use Welsh slate. However the vast majority are still made of Portland stone mined from Portland Bill off the South Coast of England. The cutting and shaping of the quarried stone was mainly done at the quarries. The carving of the headstones was sometimes done at the quarries themselves or in the cemeteries after the headstones were erected.

The many monuments scattered around Flanders battlefields and cemeteries vary in materials used. The Menin Gate monument uses Portland Stone. Thiepval monument uses Portland stone and French brick which were replaced in 1973 with Accrington brick. However the vast majority are made using Portland stone. Regional monuments in Commonwealth cemeteries around the world often use stone or materials sourced locally.

In this centenary year of the ending of the Great War the memorials to the fallen still stand proud and to attention. Graveyards who's predominant features are the rows of headstones all bearing personal inscriptions such as name, age, rank, nationality, regiment and religion but all containing the fragments of the fallen. How fitting are the regimented headstones all set out with military precision, quarried, shaped and carved with great care and attention to detail. Monuments standing proud bearing inscriptions of names of those who are lost and not yet found but will never be forgotten. Although not repatriated each grave has a feeling of home coming for the fallen, you could say it's their own small corner of England which they gave their today for.



Paine Quarry of Botticino Marble Italy.



1918 Anderson Grice three meter primary saw installed to cut war graves. Originally this machine was steam driven



Carving Commonwealth War Graves Commission headstones

**Graham Topping. Dedicated to: William Topping. 1890-1915.
John Topping. 1900-1918.**

Germany converting a huge coal mine into giant renewable battery. Water will flow down through the mine powering turbines

A German coal mine will be converted into giant "battery station" to store enough renewable energy to power some 400,000 homes. The Prosper-Haniel pit in the state of North Rhine Westphalia near the Dutch border, has produced the fossil fuel for almost half a century.



The Prosper Haniel hard coal mine in the state of North-Rhine Westphalia.

Work will begin when the mine closes in 2018. The project will mean the western city of Bottrop, where people have worked the 600 metre deep mine since 1974, will continue to contribute to playing a key role in providing the country with continuous energy, according to state governor Hannelore Kraft. Along with other politicians, he is hoping the project will pave the way for similar facilities across the country, since Germany has doubled its commitment to clean energy and is in need of new sites to store excess power.

Around 26 kilometres of shafts in the complex have the potential to accommodate a million cubic metres of water, which will flow quickly through them. If the project is a success, it is hoped the facility will help Germany reach its goal of 30 per cent of its energy coming from renewables by 2025.

But now it will find a new purpose as a 200 megawatt pumped-storage hydroelectric reservoir. Researchers from a number of German universities are working alongside private engineering companies and the government on the project.

They believe the elevation provided by the pit will provide an opportunity for hydroelectric storage.

It is thought that water will be able flow downwards, powering turbines and generating electricity, with water pumped back up again during periods of low demand.

"In regions such as the Rhineland or the Ruhr area, the lack of relief in the landscape does not provide the necessary height differences for hydroelectric power," The project's website says.

The Independent. March 2017.

Duplicate NMRS book Donations for sale.

Here are few more books that have been kindly donated to us with permission to sell them on if they are duplicates to copies in our NMRS library. Payment via cheque made out to NMRS.

The Derbyshire Mineral Statistics 1845-1913 by R. Burt, M. Atkinson, P Waite, R. Burnley P/b 1981 £5 plus £2 p&p

The Cumberland Mineral Statistics 1845-1913 by R. Burt, P Waite & R. Burnley p/b 1982 £5 plus £2 p&p

The Yorkshire Mineral Statistics 1845-1913 by R. Burt, P. Waite, M. Atkinson & R. Burnley p/b 1982 £5 plus £2 p&p

Coniston Copper Mines, A Field Guide by Eric G Holland signed by the author 1981. P/b 1st edition £3 plus £1.50 p&p

The Lead Miners of the Northern Pennines in the 18th & 19th Centuries by C.J. Hunt. H/b with d/w 1970 £10 plus £3.50 p&p

Two Centuries of Industrial Welfare – The London(Quaker) Lead Company 1692-1905 by Arthur Raistrick H/b with d/w 1988 £5 plus £3.50 p&p

If interested in any of the above please contact **Barbara Sutcliffe** email mansemins@bopenworld

Help!

Information Required?

Can anyone identify the machine in the photo? It was taken in 2006 and appears to show tracked loader in the entrance to the Haywood Level in the Forest of Dean. At the time I had no interest in such machines, so I just filed the photo away. When I visited the site in 2010 it had been cleared of rails, wagon, and loader.



Please contact the Editor who will forward all information to Rob Needham

Disclaimer

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Northern Mine Research Society

New General Data Protection Regulations – Confirmation of consent.

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I confirm my consent for Northern Mine Research Society to process my personal data, as set out below for the purposes of allowing our Society to function and provide me, the member, with membership, publication services & enquiries using your internal system. My information will only be passed on to other organisations for purposes directly connected to NMRS membership (eg to enable Gift Aid to be claimed). Please note all PayPal transactions are additionally subject to the PayPal privacy policy.

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Signature:.....Date:.....

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Our newsletters, publications, website and our Facebook page may publish photos of our Society activities. If you consent to your photo being used in this way please tick here.

Please check the completed form and send to the Membership Secretary:

Gary Topping. 15 Primet Heights, Colne, Lancs, BB8 8EF.

membership@nmrs.org.uk

Email: