



Presidents jottings

The summer is almost over and as usual NMRS has been very busy. We must thank Malcolm for all the effort and hard work he has put into our **new website** over a long period of time! Although not completed as I write I hope you all agree it is impressive and easier to use than the previous one. Mick Cooke and myself will be helping Malcolm to keep it updated so keep checking it for new items, offers, news, and photos. Unfortunately as of writing there have been no enquiries re the upcoming **Membership Secretary role that will be required** when Malcolm relinquishes this role. No membership secretary, no money coming in so no Newsletters, Publications etc. I am sure there is someone within our large membership who could be interested. Just think of all the enjoyment you have had from membership of our Society. Could YOU help? Also Sallie feels there is a need for fresh ideas for Meets so she has decided to stand down and hand over to someone with new contacts and possible new meets. There are further details in the Newsletter. We must thank both Malcolm and Sallie for all their efforts and are fortunate that they will still be involved in the running of our Society.

I'm hoping to see some of you at the coming event at **Tennant's** in Leyburn where we will have a stand. I think you will agree it is an excellent venue and hopeful-

ly it will become an annual event. Our **publications** will have a presence at the Bakewell Rock Swop at Lady Manners School the weekend of 8th and 9th of October

Saturday 22 October sees our **Autumn Meeting** at Gisburn Festival Hall, SD 82 48. This will follow our usual format of book sales from 11.30 followed by a buffet lunch, formal meeting and your presentations. These are usually varied and interesting and must last no longer than 15 minutes. Please contact me in advance if you wish to offer a presentation. I notice some of our new members live quite near to Gisburn and I hope some of you will come along and introduce yourselves to us. We are a friendly bunch once we realize we have someone new amongst us. Please note the buffet **MUST** be prebooked. Sallie usually collects our buffet but unfortunately she is unable to come to this meeting so someone new to catering is stepping in and will need numbers to work on. If you hope to come just email me at mansemins@btopenworld.com or phone 01282 614615 (please leave a message if we are out). It would also help if you booked before October 12th. Thank you to members who have sent in meet reports for this issue. Also remember **Heritage week-**

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Would you please note that the deadline for inclusion with the November 2016 Newsletter is the 31st October 2016.

Submissions are welcome that would be of interest to members of the NMRS. These can be forwarded to me as text/disc by post or you can email or telephone. If you require anything returning please ask. Photographs, plans and drawings are acceptable as long as they can be reproduced in black and white.

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end takes place September 8-11th. Details can usually be found in local tourist offices or at www.heritageopendays.org.uk where you can search by area. Also the following weekend our Editor, Richard Smith, is leading a surface Walk to Arkengarthdale bale sites. There are further details elsewhere, on your membership card or our website. We were sorry to hear of deaths of two of our members. Derek King died before the last newsletter was sent out and prior to that Steve Croft of Weardale died of a stroke (see Obituary on page 23). Our condolences go to their families.

We would like to welcome the following new members

Andrew Booth	- Wakefield
Neil Catlow	- Kirkby Lonsdale
Peter Cutler	- Wolverhampton
Brian Dixon	- Winchester
Dr Tony Fort	- Burnley
Shaun Hall	- Peterlee
Nick Proctor	- Middleton
Nicholas Reynolds	- Altrincham

Library News

The Russell Society has decided to discontinue its library service and has kindly donated to us some copies of "Mining and Smelting Magazine", off-prints of some of Russell's articles in Min. Mag., and two copies of the "Journal of the Camborne School of Mines" including the 1986 copy which includes a famous article on Sir Francis Mine (Swaledale) by W J Watton which includes several, excellent photographs. We are very grateful to the Russell Society for this kind donation. The early copies of the "Journal of the Camborne School of Mines" contain many interesting articles on mines through-out the country: if anyone has surplus copies, we would like to acquire more.

We are very grateful to the son and daughter of the late Norman Thomson for their generous donation of Norman's books and off-prints: these include BGS Memoirs for Ambleside, Ulverston and Skiddaw; a Cumberland Geological Society book of excursions; and a fascinating book by Peter Danby which lists Lake District places of interest grid square by grid square, including geological features, but also buildings, plants and places of literary and historical significance.

I came away from the AGM with a bag full of books. Thank you to David Joy and to Steve Grudgings for copies of their new books, "Men of Lead" and "The Last Years of Coal Mining in Yorkshire" respectively; and to Cornwall Council for a CD "Bypassing Indian Queens" about archaeological excavations there from 1992 to 1994. (Actually, it is probably thanks to Barbara that we receive some

Dr Ade Band - Chesterfield
Nick Baxter - Morecambe
Stephen Richardson - Scarborough

As mentioned elsewhere our **library** is very fortunate to benefit from donations including newly published books. It is a pity it is not utilised more. If there is anything you would like to borrow or an area you are particularly interested in please contact Sallie, our librarian. With other libraries closing due to budget cuts we should be very proud of ours as it continues to expand. Sallie welcomes visitors, by appointment and also arranges the postal loans.

Reminders!

- Book for our autumn meeting
- Consider offering a presentation
- Could you help your society by offering your services as Membership Secretary or Meet Organiser?

Thanks

of these donations, because she asks the publishers for free copies.) Thank you to Keith Turner for copies of MOLES magazines, CAT Newsletters from 2015, and Welsh Mines and Mining Journal No.4 (Proceedings of the 2014 NAMHO Conference); and to Rex Cook for recent copies of "Down to Earth".

Sallie Bassham (Honorary Librarian)

Membership Secretary

As you will have heard, I am stepping down as membership secretary as unfortunately the busiest time coincides with my busiest time. October is the time when all the renewal information needs to be processed and letters printed. Most of the renewals come in from November onwards. October is my busiest month, with preparations being made for some fundraising events I am involved with during that month, and preparations for my annual trip to Uganda in November.

The membership secretary's task is not a difficult one, it involves:

1. Keeping an up to date list of members on a spreadsheet.
2. Adding new members who join – most do so by email now.
3. Recording members who renew.
4. Reporting to the committee.
5. Reminding non payers in April that their membership payment is overdue.
6. Printing mailing labels and renewal forms (this could be done by someone else if necessary)

If you want any more information, please contact me at malcolm@nmrs.org.uk or telephone 07923 441523

New website

History - The Society has had a website for over ten years now, the original being built by Martin Roe. Unfortunately updating this was very difficult and so David Neal produced version 2 which was easier to maintain. When I took over a year or so later I recoded the 50 or so pages and, with Mike Gill's help, grew the site to around 1400 pages.

One thing was for certain, when I eventually hang up my mouse, it will be difficult, if not impossible, to find a volunteer who understands html to maintain and expand the site. The website needed to be rewritten in a "content managed system" like WordPress. In order to get away from the problems of finding the right theme to use, from the many "off the shelf" ones about, and having to live with their limitations, we decided to seek professional help.

Early last year we engaged Elementary Digital of Ilkey to design a bespoke theme and page templates for us. The site had to be responsive to enable it to work on tablets and smart phones, it had to have the means to sell publications and be easy to navigate. We wanted it to look good, but with content as the priority. Above all it had to be easy to update without technical knowledge. I think we have managed to achieve all this.

Maybe if I had known at the start what process would be like I might have run away screaming, but I didn't. It has been hard to get across my thoughts and ideas to the design team by email, and sometimes we appear to have taken two steps back for every one forward. However, we appear to have got there, or nearly so with just a few snags to iron out. There are also a number of errors, broken links and bits that don't work properly; I am busy working through these. If you find any, please let me know so that I can investigate.

My next job is to write some procedures on how to update various things and I will be showing some of our committee how to work on various sections. If there is any member out there with a hankering to get involved with the website, please get in touch with me – use the contact form on the website or email malcolm@nmrs.org.uk

Malcolm Street, webmaster

Meets for 2016

Thank you to everyone who has offered meets.

Saturday 6 August

Rimington lead and barytes mines.

Leader Mick Cook.

Meet at 11am at NGR SD 813 454. There is roadside parking. A surface walk of about 3 hours to look at the lead and barytes mining remains at Skeleron.

Bookings to Mick Cook on 01282 427 428.

Saturday 10 September

Heritage Weekend. See media announcements for details of mining and other industrial archaeological sites to visit.

Saturday 17 September

Bales sites in Arkengarthdale.

Leader Richard Smith.

Meet at 11am at Foregill Gate Watersplash. A surface walk to look at Calver Hill bale sites.

Bookings to Richard Smith on 07785 508 013 or rsmith6@btinternet.com.)

Saturday 22 October

Autumn Meeting at Gisburn Festival Hall SD 82 48.

Book sales from 11.30am. Buffet lunch (pre-booking essential) at 12 noon, followed by meeting and presentations.

Bookings and presentation details to Barbara Sutcliffe (01282 614 615 or mansemins@btopenworld.com)

Organising meets

I have been organising meets for several years now; and feel that it is time for me to stand down and for someone with new ideas and contacts to take over. Meets need to be organised well in advance so that they can be listed on the Membership Card for the following year, and uploaded to our website. Since at this year's AGM, I agreed to continue for one more year, I am willing to work on meets for 2017. Perhaps the best way forward is for those interested to contact me so that we can work together on arrangements for 2017. This is especially the case because I am not able to come to the Autumn Meeting in October. (I have found that talking with potential meet leaders together at the Autumn meeting is an excellent way to arrange a variety of venues on dates which do not clash.)

The way I have done this task is to contact people I know and ask them to volunteer for a meet in a place they know well, and on a date convenient to them. Usually people are flexible about dates and it is possible to juggle the options so that meets are spread fairly evenly through the summer.

I do not have the computer software to put the information into the exact format needed for the Membership Card; so I type out in full the dates, start times, contact details and grid references: and

hand this to someone else to adjust type sizes and do the clever formatting.

Please get in touch if you want to discuss what is involved.

Sallie Bassham

015 2424 1851

sbassham@chipmail.co.uk

Rogerley Mine update, June 2016

For quite a few years now we have been invited to visit this mine near Stanhope as part of our meets programme. It has always been very well subscribed to and Cal Graeber has been very generous in the time he has spent with our members and we are very appreciative of this.

Unfortunately a new set of regulations governing the civilian use of explosives has made it much more difficult and expensive for small operations such as those of UK Mining Ventures who operate the mine to acquire and use such things. As a result, at the end of summer 2015 they lost access to the magazine which they had used over the years, which was located in a nearby quarry. Another problem was that Dave, the local miner, announced his retirement at the end of the same season. With these problems UK Mining Ventures are wondering how things will turn out. If any more news comes through I will let you know.

Barbara Sutcliffe

Garage Book Sale

Another event to put in your diaries. Due to several generous donations from members and former members we now have quite a large stock of books surplus to our library requirement. These are stored in our garage and consist of second hand BMs, maps including many rolled up 6" ones, other books on topics such as mining, minerals, fossils, geology, archaeology etc etc. All are very reasonably priced with a few antiquarian ones requiring donations. As there are far too many I am holding a garage book sale on **Saturday October 1st 2016** from 10.30-3.00. at The Old Manse, 93 Halifax Rd., Nelson, Lancs, BB9 0EQ. I also have several out of print BMs available so if there are any of these you need please let me know in advance as they are kept elsewhere and will have to be sorted out. I hope some of you come for a browse, a chat and to purchase some of our books. Remember we are very near to Boundary Mill for those with partners with a penchant for shopping!

Please note there are three different Halifax Roads in our vicinity so if using Sat Nav please ensure you use the correct postcode. We are on the left hand side going up Halifax Road and our red Skoda will be parked up our driveway.

Barbara Sutcliffe

The Miners' Cathedral



St Just's Wesleyan Methodist Chapel, known locally as the Miners' Cathedral is an imposing building and a dominating feature in this part of Cornwall. Over the years many letters have been received from miners who had left for America and other countries in search of new mining positions, stating that the last sight they had of the English mainland was the towering Chapel.



Originally built in 1755 and added to in 1799 to serve the growing congregation swelled by the mining activity in the area. Eventually it was felt necessary to build

a new much larger Chapel in 1833 at a cost of £1,300 according to the press at the time. There was seating for 1,800 people. 1000 of these were free and pews for 800 people were subject to rent. This practice was similar to the old Methodist Chapel I attended in Lancashire prior to amalgamation with others. Alterations in 1893 resulted in the current seating for over 1000 which means it is still one of the largest Chapels in Cornwall. At the same time it was decided all seats should be free.



One problem of such a large building was the heating of it. For example to have a warm Chapel for Sunday between 1910-1920 required the fires to be lit at 4.30pm, stoked at 9am on Saturday morning, then regular visits until after Church on Sunday. The large burial ground outside is the final resting place of over 4,000 St Justers (1000 of which are sadly Children's graves). Many visitors from this country and abroad visit both the Church records and the graveyard looking for their ancestors. Unfortunately due to a dwindling congregation, necessary expensive repairs and upkeep, the future of the Miners' Cathedral is at risk. If a use cannot be found for the Chapel it will have to close by August 31st, 2017. This grade two magnificent building with fantastic stained glass windows needs a future in my opinion and is an important part of our mining heritage. It was suggested it should be added to the town's register of community assets but "The Cornishman" in May reported this idea was turned down as it would just become another unused community building. The same article ended on a more optimistic note from Cornwall councillor Sue James. "I will strive with partners involved in the Tin Coast project to secure a fitting and sustainable future for the building." We will wait and see.

We were fortunate to visit the Chapel while on holiday though not allowed to go into the body of the Cathedral. This was for health and safety reasons.

Barbara Sutcliffe

Visit Report - Forterra (Claughton) Brickworks, 21st May 2016



Photo:- NMRs party with Claughton manager Graham Longhorn

Our visit to view production of bricks to meet demand in the UK resulted in a most enjoyable day. Thanks are due to the management for arranging viewing of the vast production areas, situated by the A683 just beyond Caton.



Photo:- Two receiving silos, each holding 60 tons
Having previously walked from the quarry on past visits, we had followed the 26 gantries which carried the 44 shale buckets, but to now view the works held the interest of the NMRs group of 11 all afternoon. Returning to the Conference Room for further recent history, the questions showed the group's enjoyment of the visit.



Photo:- Brick-cutter area, where the extruded lengths are cut to brick size



Photo:- WW2 Guy gun tractor, seen on an earlier visit in April 2008

Note. The Guy 1943 Ant Quad 4x4 vehicle was previously used at the MoD site at Gayle, near Hawes. When the site closed it was sold on for scrap to Bill Huck's scrapyards on the A65 in Ingleton. Claughton Management came along looking for a suitable 4x4 vehicle for them to use for the hauling and positioning of the 1" diameter cable for the ropeway on which the buckets travelled from the quarry to the works on the A683. The vehicle has, in February 2016, been saved for full restoration.

Bernard Bond

NMRS Cliviger lead and lime Field Meet – 11th June 2016

The day was split up into three different parts Thieveley Lead Mines

8 members met at the Ram Inn carpark in Holme Chapel including one member who had driven up all the way from Cambridge. Because of previously hot and humid weather it was a relief that it was a mainly dry and overcast day to tramp across the moors. The route to the mines comprised of crossing a large field, through a tunnel underneath the railway, ascending many cut steps known locally as Jacob's Ladder to eventually arrive at the ruined farm of Thieveley. Just above the ruins are two spoil heaps where it is still possible to find small

samples of lead. Higher up the hillside several shafts are prominent just below the conspicuous outcrop of Beacon Rock. The picture shows a few members just above one of the spoil heaps. The old shafts are up to the left of them.



Lead ore (galena) was first discovered here by Godfrey Mercer in 1626 when large scale mining activity took place over several phases. The final phase was between 1768-1775. Both these ventures failed because the ore was found in uneconomic quantities. To discover more about the Thieveley Mines refer to Mike Gill's *The Yorkshire and Lancashire Lead Mines* BM No. 33 where he describes the mining ventures in great detail. Slightly down on the left side of the hill are another spoil heap and a water leat. On the return journey we followed the miner's track which snaked down the hillside to reach the Pack Horse Ginnel. This was the route that the pack horses took when transporting lead ore away from the Mines. It has been restored by the Employment Training team of dry-stone wallers back to its original condition. The walls lean slightly outwards to allow for the ore sacks to proceed down the track.



Sheddon Clough

Leaving Holme Chapel, we drove along the Long Causeway road to Maiden Cross carpark which is situated opposite the Coal Clough wind farm. This is the start of the Limestone Hushing Trail. Here we had lunch and met Rodney Mitchell who gave us his expert knowledge of the area. Rodney spent much of his life working in the local area. NCB trained at Bank Hall Colliery, Burnley. Periods of work at Copy Pit, Cliviger; Hill Top Colliery Todmorden; Merrill's

Head where he formed a partnership with Billy Clayton to form Clayton Mitchell Ltd at Grimebridge Colliery and at Tan Llan Colliery in Mold. Incidentally, NMRS visited Grimebridge in September 1995. A truly unforgettable experience!

After lunch we set off down the trail to where the dams were situated. These storage ponds were filled from water courses or goits fed from higher up the Clough. The force of the water, after been released down the valley, washed out the boulder clay and gravels exposing the limestone boulders underneath (hushing). Labourers with picks and shovels would then dig out and break up the limestone which was then placed in small on site kilns to produce quicklime. Unwanted sandstones and grits were just piled up and left, these were known as 'sheddings.' The photo underneath shows the party gathered by a rebuilt kiln.



Below a view from the hushing site, is quite a remarkable sight. After many years of continuous channelling water down the valley, the valley floor has been eroded away to create a miniature landscape of hills and valleys. The tops of the hushings mark the original height of the landscape.



For those interested in visiting this site, there is an excellent internet download called Ribble Catchment Geotrails pocket guide – Walk 11 Sheddun.

Maidens Cross Colliery

Directly across the road from the Maiden Cross carpark we climbed a field gate in order to walk up a level tramway, this led the way to the engine

which powered the ginney track. Here at the pit head lays the remains of a large engine bed and a structure behind which was probably the chimney.



One interesting observation on the engine bed was a small trough cut into the stonework floor. This would allow for the oil that dribbled under the engine to be collected for further reuse. Oil was very expensive in those days. The colliery was started in 1868, worked the Arley Mine at a depth of 113 yards but due to water problems closed in 1891. The mine was named after a large ancient wayside marker stone by the field gate mentioned earlier. The inscription "Maiden Cross" can just be made out under a maltese cross cut into the stone. Photo below shows the party walking along the tramway back to the carpark.

And finally, I would like to thank Graham Topping with assistance from brother Gary for arranging and leading this field trip, and also thanks to Rodney Mitchell in guiding the party around Sheddun Clough and Maiden's Cross colliery. A great day out was enjoyed by all the members in what proved to be very satisfactory and informative walk in this interesting part of Lancashire.

Richard Platt

Overground-Underground, The Festival of the Ingleborough Dales, 11 May to 3 September 2016

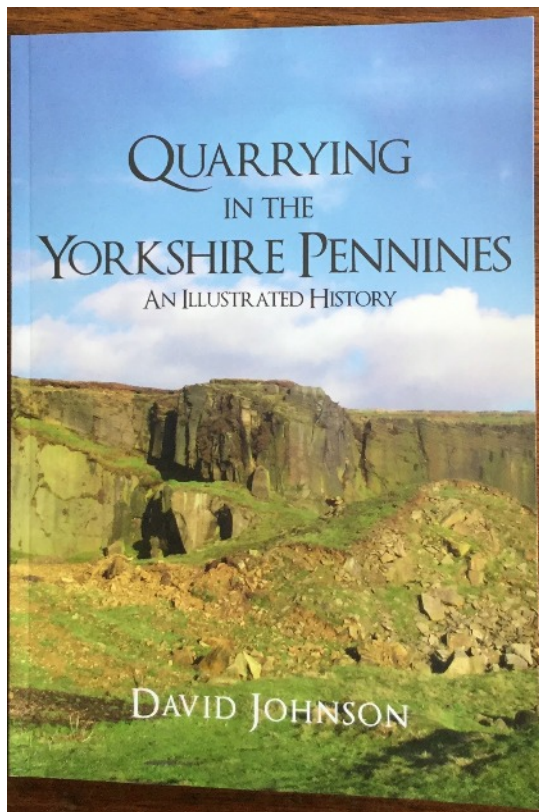


Photo:- Ingleton New Colliery rescue team. In the middle of the front row is Bob Pollard, whose daughter, Celia Pollard, gave the photo to Bernard.

As part of the festival on 27th & 28th August NMRS member Bernard Bond will be exhibiting his collection of locally gathered artefacts and talking to visitors about the fascinating history of Ingleton's coal-mining industry. Bernard is also hoping to add to the sales of his book, BM76, Ingleton Coalfield.

Reviews

Quarrying in the Yorkshire Pennines, An Illustrated History by David Johnson 96pp ISBN 978-1-4456-5367-9



Written by one of our members this recent paperback publication from Amberley's industrial history range explores the legacy of quarrying across the Pennines of North and West Yorkshire. David is a geographer and landscape archaeologist based in the Yorkshire Dales so is well placed to write this excellent and interesting book which, as the title suggests, is lavishly illustrated by 180 photos both in colour and for historical early scenes in black and white. From explaining the derivation of the word 'quarry' to what a quarry was defined as in the Factory Act of 1878 the introduction also includes information on the geology of the area resulting in the many rock types that proved suitable for uses including building.

The landscape of the area is dotted with old quarry workings and almost every parish has abandoned quarries that exploited limestone, sandstone, flagstone, millstone grit, chert (what quarrymen used to call granite and slate) There are also chapters on millstones; ganister and fireclay; moving materials within quarries; processing stone and

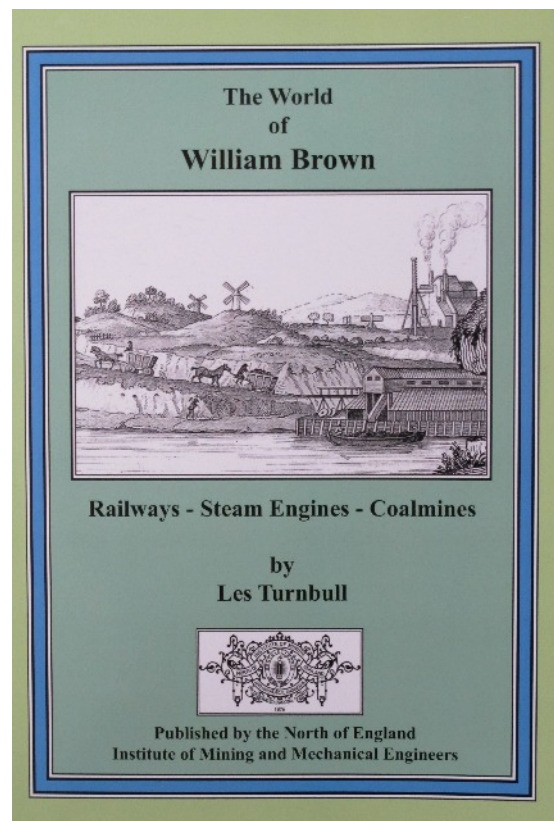
transporting products from the quarries. For centuries men and boys laboured in difficult and often dangerous conditions to supply the ever-increasing demands for stone products. Nowadays very few quarries remain in business but the old photos and maps emphasise the importance of this part of our disappearing heritage. I particularly like the use of nostalgic adverts, many of which have been researched as to the year of use.

The book certainly lives up to its title and can be enjoyed by all who gain pleasure in this part of the country, not just the enthusiasts who read our newsletter. Priced at £14.99 it will be available from good booksellers. I have a few copies available with 10% of sales going to NMRS. Postage would £1.75 though orders could be collected at Bakewell. Also the publishers have kindly donated a copy to our Library.

Barbara Sutcliffe

The World of William Brown, Railways Steam Engines-Coalmines by Les Turnbull, published by the North of England Institute of Mining Engineers. 124 pages, softback A4 format with maps in colour ISBN9780993115110

I



must declare a strong bias before commencing this review as I had seen an early draft as well as contributing a couple of minor items.

William Brown (1717-1782) of Throckley near Newcastle was a contemporary and possibly related to the famous "Capability" Brown and Les Turnbull declares at the outset of this excellent book his purpose to ensure that Brown receives the recognition due to him.

Brown was the leading “viewer” of the Great Northern Coalfield at a pivotal time (1750-1780) in its development and Les makes a well-argued case for the significance of his contributions to the area’s colliery engineering and infrastructure. We are also reminded that Brown worked closely with men such as Abraham Darby, James Brindley and John Smeaton, who unlike Brown, are widely recognised for their contributions to the industrial revolution.

Brown’s key contribution was to “win” the deeper and wetter pits of the Tyne Basin and enable access to the valuable coals therein, ensuring the continuing growth of its output and prosperity. The author has set out separate chapters to Brown’s work as Engine Builder (one of my particular areas of interest), Colliery Viewer and Wagonway expert and makes it clear that it was the combination of these elements that made Brown so successful.

I found the chapter on viewers and how they attained their positions particularly insightful and the descriptions therein will I suspect be of interest for all students of coal mining. Similarly the description of wagonway planning and construction was of a greater depth and clarity than I had seen elsewhere. On the subject of Atmospheric Engines, Les has very usefully and with considerable rigour set out the details of all known engines installed in the coalfield up to the time of Brown’s death in 1782. In this endeavour he has carefully corrected the inaccuracies in Dunn’s “History of the Viewers” engines published in the following century on which later researchers such as Mott, Raistrick, Allen and others based subsequent accounts. Using primary source material, much of which is held in the NE-IMME, the author has drawn together a wide range of archival data to identify where engines were built, when and by whom and most usefully also covers their moves and reconstruction. This list includes most significantly an image of what appears to be the first instance of winding by such engines at Lane Pit, Longbenton in 1749! Combining his local knowledge with a wide range of archival material including some finely drawn maps Les sets out the known details for 54 engines from “Brown’s List”, 39 of which were installed in the North East.

The quality of the images is good and the text is well structured and Les has carefully placed Brown’s endeavours in the regional and industrial context of the period. So in case you are left in any doubt, this book is highly recommended and is available by post from the NEIMME at the address below at £15 plus £5 P&P

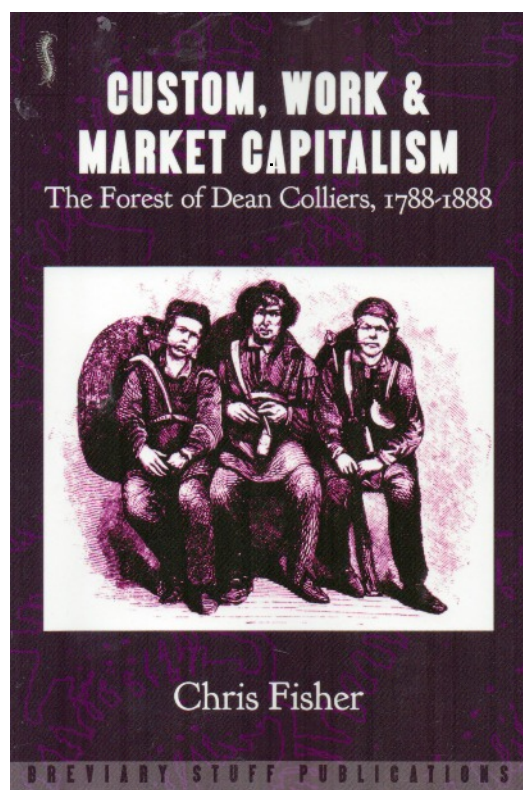
The North of England Institute of Mining and Mechanical Engineers, Neville Hall, Westgate Road, Newcastle upon Tyne, Tyne and Wear NE1 1SE

Steve Grudgings

Recent Publications

Custom, Work & Market Capitalism, The Forest of Dean Colliers 1788-1888, by Chris Fisher. ISBN 978 0-9929466-7-8 £14 Published by Breviary Stuff Publications, BCM Breviary Stuff, London WC1N 3XX

www.breviarystuff.org.uk



Freemining to free market

A book that examines the tradition of freemining and the move to market capitalism in the Forest of Dean has been brought back into print, thanks to some serious detective work.

Chris Fisher’s book *Custom, Work and Market Capitalism: The Forest of Dean Colliers, 1788-1888* was published in 1978 but soon fell out of print.

Forest of Dean Local History Society member, Ian Wright, told the Review: “This is an excellent study of the Forest of Dean colliers at the time. Chris is an ex-Australian miner who studied in Britain and wrote the book as part of his doctorate here.

“When he’d written it he returned to Australia and I tried for fifteen years to track him down. I made one last attempt via some obscure Australian mining trade union contacts and then out of the blue received an e-mail from him from a sheep farm in the outback.”

Chair of the Forest of Dean Freeminers Association, Rich Daniels, has written a preface to the new edition of the book, which is back in print.

Rich said: “This most valuable little book has formed part of my personal collection of Forest reference books for over 20 years. [Chris has] captured the

essence of the time to which the book relates. A time of great upheaval in freemining, commoning and the management and use of our Forest land.” *Custom, Work and Market Capitalism* is available at Hopewell Colliery or at breviarystuff.org.uk

Forest of Dean & Wye Valley Review, 17 June 2016

Archive Issue 90 has two articles that might be of interest to members.

1) Five pages on East Slade Colliery in the Forest of Dean

2) Twelve pages (largely photos) by Steve Grudgings on Qualter Hall underground Free Steered Vehicles

There's also a review (by Steve Grudgings) of Les Turnbull's book on William Brown.

Rob Needham

NAMHO Conference 2017

Our Society was a founder member of NAMHO; and our Librarian, Sallie Bassham, is our representative on the NAMHO Council and currently its Chair. We hope that some of you will want to respond to this request from the organisers of next year's NAMHO Conference.

Request for Speakers

Mining History Organisations – Achievements and Challenges

We are very keen to provide a full set of good lectures over two days of the 2017 Conference, 24th and 25th June, based at Godstone, Surrey. We would like to encourage all mining history organisations such as yours to take this opportunity to showcase a project of which you are rightly proud, whether in progress, completed recently, or finished many years ago. Remember that future projects are not excluded either, so we would be very grateful if you would consider your options and let us know if you as a society would like to take one of the lecture slots. We would envisage that any presentation should last between 40 and 60 minutes, including a provision for a short question session at the end.

We would, if possible, like to hear about the challenges that you had to overcome, and the nature of any issues and benefits derived from working with third parties, such as landowners, agencies of various kinds, or other bodies such as yours.

We are not necessarily expecting any particular style or manner of presentation, so please don't feel constrained to an academic approach. We would like the event to be reasonably informal, inclusive, and above all, enjoyable.

If you would like to contribute, please let me know,

including in your reply the subject matter, the length of time you think you need, and a brief summary. If you would like to contribute, but are not yet certain of the details, then just reply accordingly.

Best regards

Peter Burgess

Lecture Organiser

NAMHO Conference 2017, Surrey

Wealdenpete@gmail.com

News from the internet (sent in by Graham Topping)

Anger as coal mine that could damage Great Barrier Reef approved



By Andy Coghlan

To dig or not to dig? That is the question. The Queensland government has issued controversial licences that allow the development of Australia's largest coal mine.

Issued on Sunday by Queensland premier, Annastacia Palaszczuk, the three licences would permit the Indian-based mining company Adani to extract coal from the planned Carmichael coal mine in the Galilee Basin at the heart of the state.

As part of the plan, which would see huge exports of coal to India, the port at Abbot Point adjacent to the Great Barrier Reef would be expanded to accommodate the extra traffic. This would potentially release plumes of soil and debris over the reef, causing damage to its ecosystem.

In addition, environmental groups say that mining and the eventual burning of this coal will generate huge amounts of carbon dioxide that will accelerate global warming and affect the health of the reef.

Burning questions

"If it goes ahead, burning coal from the Carmichael mine would create billions of tonnes of pollution, making climate change worse and irreversibly damaging the Great Barrier Reef," says Josh Meadows of the Australian Conservation Foundation.

The foundation is challenging the legality of previous federal level approval for the mine on the basis that it is inconsistent with Australia's international obligations to protect the World Heritage-listed Barrier Reef. The case will be heard in a court in Brisbane in early May.

The foundation calculates that if the mine operates for 60 years, Carmichael would yield 2.3 gigatonnes of coal, which would generate 4.73 gigatonnes of carbon dioxide when burned.

"We will argue that the federal environment minister, Greg Hunt, did not properly consider the impact that pollution from burning the mine's coal will have on the Great Barrier Reef," says Meadows. "Hunt went against his international responsibilities to protect the reef, a UN World Heritage Site."

New Scientist 5 April 2016

Accrington and Cloughton brickworks face second mothballing

A famous Lancashire brickworks company is planning to mothball two of its factories for a second time - putting more than 60 jobs at risk.

Forterra, formerly known as Hanson, closed sites in Huncoat near Accrington and Cloughton near Lancaster from 2010 to 2014 before reopening them.

It said "current economic uncertainty" meant it would be "prudent" to again shut the sites on a temporary basis.

Forterra said it was consulting staff and trades unions about its proposals.

Hyndburn Council Leader Miles Parkinson, as well as the GMB and Unite unions, have called on the government to support the local brick industry.

Steve Kemp of GMB said there needs to be a "complete sea change" in government policy in order to support the building of more "desperately needed" homes in the UK.

He also called for a "major push" on social housing and to address the "alarming rate of brick imports".

Huncoat's famous bricks

- Bricks have been manufactured at the Huncoat site since 1887
- Made from fire clay, they are extremely hard
- They became known as Nori bricks when the word iron, denoting their strength, was painted upside down on the works chimney
- Nori bricks were used in the foundations of Blackpool Tower and New York's Empire State Building

Mr Parkinson said Forterra and the government need to "come together" to "make sure we have long-term brick manufacturing in Accrington".

"We have the shale, we have the factory," he said. "People in the [UK] need houses to be built and there is a shortage... so this needs to be overcome by government intervention."

Prime Minister David Cameron and Chancellor George Osborne went to the Huncoat factory during last year's general election campaign.

They said the company's progress represented a "sign of growth in the economy".

Mr Osborne said it was "the strongest evidence possible that Britain and the North West are coming back, and are once again on course to prosperity".

BBC News 5 July 2016

Druridge Bay opencast beach mine plan backed by council

Controversial plans for a surface mine close to a nature reserve have been backed by Northumberland County Council.

Developer Banks Group wants to extract three million tonnes of coal, sandstone and fireclay from a site at Highthorn, near the village of Widdrington.

The company said the Highthorn Surface Mine would create jobs and investment.

Critics said it would "damage tourism and scar the landscape". The Secretary of State will make the final decision.

Local campaigner John Rodgers said: "We've lived with opencast mining for 50 or 60 years and we've seen how it snuffs out all other economic activity."

Restore the site

Banks Group said there would be 50 jobs transferred to the new site from other sites in Northumberland, which adjoins Druridge Bay, and 50 new jobs.

It would also restore the area after it had finished and £48m would go into local suppliers.

Jeannie Kietley, from Banks Group, said; "What's really important for Northumberland is job creation and making sure we continue to support the economy."

The company is proposing extraction would last five years and then two years would be spent restoring the site.

Council leader Grant Davey said: "I fully accept this has been a long and difficult process, with strong feelings on both sides, but I do believe this decision is in the best interests of Northumberland and its residents.

"It's also important to stress that the CBI (Commercial Bank International) and the North East Chamber of Commerce have written in support of the application."

BBC News 5 July 2016

UK energy from coal hits zero for first time in over 100 years

Coal-generation hit historic lows several times last week in what experts say are the only occasions since the first coal-fired generator opened in London in 1882

The amount of electricity generated from coal in the UK has fallen to zero several times in the past week, grid data shows.

In what green energy supporters have described as a "historic turning point" for the UK's power system, coal-fired electricity first fell to zero late on Monday night and for the early hours of Tuesday morning, according to data from BM Reports.

On Thursday, there was no electricity from coal for more than 12 and a half hours, more than half the day, with it making no contribution to the UK's power supplies late at night when demand was low and for a period in the day, the data shows.

It is thought to be the first time the UK has been without electricity from coal since the world's first centralised public coal-fired generator opened at Holborn Viaduct in London, in 1882, according to the Carbon Brief website which reports on climate science and energy policy.

The record lows in coal power generation come as the UK enters the summer months, which sees lower demand for electricity, and with more than half of the country's coal capacity out of action, for example for planned maintenance.

But there have also been a series of recent closures of coal-fired power plants as they become less economic, while plants such as Drax in North Yorkshire have partially switched to burning "biomass".

The government has said it wants to see coal phased out by 2025, as it is the most polluting way of generating electricity.

There has also been an increase in the amount of renewables on the system, with a record 27% of the UK's power coming from sources such as wind power in the last quarter of 2015.

Press Association 13 May 2016

Could South Crofty tin mine re-open soon?

Could South Crofty tin mine re-open after being acquired by Canadian firm Strongbow?

A Canadian mining company has completed the acquisition of a famous Cornish tin mine with views to starting digging for ore on site once again.

South Crofty tin mine near Camborne closed in 1998 and has had a chequered history since with several mineral firms unsuccessfully trying to revive its fortune between 2001 and 2010.

Strongbow Exploration Inc has now completed the acquisition of the site, rescuing the mine from administration.

The deal, which was completed on 11 July, gives Strongbow Exploration Inc, a 100% interest in the South Crofty Tin Project and associated mineral rights.

The South Crofty Tin Project is located in the towns of Pool, Camborne and Redruth and has an active mine permit valid until 2071, subject to certain planning conditions being met.

The mine permission area includes 26 former producing mines. Several companies attempted to revive the mine between 2001 and 2013 but due to poor market conditions the assets were put into administration that year.

The mine has seen production from near-surface copper, mineralisation and deeper tin-only mineralisation.

A spokesman for Strongbow said the focus will now be to dig for samples at a depth of 400 metres below the surface to see how much tin is still available and how commercially viable it would be to extract it.

Under the deal, Strongbow has acquired a 100% interest in Western United Mines Limited and Cornish Minerals Limited (Bermuda).

These companies between them hold the rights to the South Crofty underground mine permission area, plus additional mineral rights over a further 7,500 hectares located in various parts of Cornwall, UK.

Richard Williams, president and CEO of Strongbow said the acquisition enables Strongbow to 'progress the South Crofty Project towards a production decision, in improving market conditions'.

Plymouth Herald 13 July 2016

Man dies at Boulby mine after 'gas blow-out' in early hours of morning

A man has died after a "gas blow-out" at Boulby mine in East Cleveland.

ICL UK, the owner of the mine, said there was a "gas blow-out" in the early hours of this morning.

It said in a statement: "The incident is believed to have involved a gas blow-out - a sudden and powerful release of gas.



"The mine's rescue team has been dealing with the incident and emergency services are at the scene. Her Majesty's Mines Inspectorate has also been informed.

"Company staff will be offering all possible support to the man's family. All other workers in the mine at the time of the incident were safely evacuated."

The area's MP Tom Blenkinsop has said his "thoughts and prayers" are with the workforce in East Cleveland.

Mr Blenkinsop told The Gazette: "From what I've heard it was a gas explosion underground.

"That's as much as I know at the moment."

Cleveland Police and the fire brigade are yet to comment.

The mine is the area's biggest employer, with around 800 staff.

In April seven workers at the mine needed hospital treatment after a large fire underground.

An improvement notice was issued by health and safety authorities after it was found regulations had been breached.

Teesside Gazette 17 June 2016

UK Potash mine looks set for September start

Sirius Minerals' plans to build one of Britain's biggest Potash mines will not be affected by the Brexit referendum, despite the fall in value of sterling.



We are targeting to be in a position to start construction in September ... that is what we are working to achieve," said Chris Fraser, the Australian former banker behind the Sirius project.

Fraser also admitted that the UK's decision to leave the EU would shift the costs of the project "in our favour".

"We are a dollar asset, but a big part of the costs will be [paid in] sterling [for] labour ... With lower sterling, we will be in a stronger position." He said.

The Potash mine, to be built under the North Yorkshire Moors in the UK, is said to be one of the country's most significant exports of polyhalite – a form of fertiliser. When completed, the Potash mine will also be the largest mine in Britain since the 1970s.

www.miningglobal.com

Taff Merthyr mine water treatment scheme



One of the 16 reed beds at Taff Merthyr passive mine water treatment scheme

One of the Coal Authority's largest treatment schemes was built to clear this site of mine water pollution and it forms a key part of the Taff Bargoed Millennium Park – a major land reclamation project undertaken by Merthyr Tydfil and Rhondda Cynon Taff County Borough Councils, together with Groundwork Merthyr.

The scheme is located in Merthyr Tydfil, Wales, and was designed to treat the iron rich mine water polluting the Bargoed Taff and Community Park lakes. The site is within the wider reclamation area of the former Taff Merthyr, Deep Navigation and Trelewis collieries.

Bringing biodiversity to Taff Merthyr

As Millennium Park is a community park, with fishing lakes and canoe slaloms, it was important that the scheme contributed to the general improvement of the surrounding area.

We brought the first phase of this restoration in line with these guidelines by including lagoons that

have a combined area of 1.2 hectares and wetlands with a combined area of 3.1 hectares. They have added biodiversity and provide valuable wildlife habitats for many different flora and fauna.

Since the scheme was built, there has been an increase in the number of birds, including the willow warbler, black cap and song thrush, in addition to fish being introduced to the river, such as brown trout.

There are 4 settlement ponds and 16 individual reed beds, with over 100,000 plants included in the scheme design.

History

In 1994 mine water discharged from the shaft of the Taff Merthyr Colliery causing pollution of a 4km stretch of the Bargoed Taff (a tributary of the River Taff).

In view of the serious environmental impact, and the major social and economic benefits that a scheme would provide to the area, we stepped in to build one of our largest mine water treatment schemes in Britain.

The scheme, which cost £1.2 million, has improved 4km of the local watercourse and prevents 72 tonnes of iron from entering the Bargoed Taff every year.

The Coal Authority

<https://www2.groundstability.com/taff-merthyr-mine-water-treatment-scheme/>

Death of 'King Coal' Richard Budge

Businessman who purchased British Coal's English mining assets loses nine-year battle with cancer



Richard Budge, the businessman who was crowned 'King Coal' after successfully spearheading the purchase of state-owned British Coal's mining assets in England when the industry was privatized more than 20 years ago, died today [18 July] at the age of 69 following a nine-year battle with prostate cancer.

Mr Budge was born in 1947, the year the UK coal industry, with almost a thousand deep mines and a

million employees, was nationalized and became the National Coal Board. Almost half a century later when the 'ultimate privatization' was completed, there were just 19 deep mines in production – and Richard Budge's Doncaster-based RJB Mining company bought all but two of them.

The three English coalfield packages embracing 17 deep mines, 30 surface mines, more than 400 million tonnes of reserves and nearly 50,000 acres of land, cost RJB Mining, of which Mr Budge was chief executive, £815 million.

Lincolnshire-born, Mr Budge went to Boston Grammar school and then studied Fine Art at Manchester University before leaving to join the Retford-based company, AF Budge, owned by his late brother Tony, which was involved in civil engineering projects, constructing major motorway interchanges and extracting coal from seams laying close to the surface.

In 1992, Richard Budge bought the Opencast Coal and Plant Division from the family business. He bought a small deep mine in Northumberland, contracted for surface mine sites, and, as the Government prepared for the sale of what former Energy Secretary Cecil Parkinson had described as the 'ultimate privatization', rescued three deep mines which British Coal had decided would play no part in the privatization process.

These 'lease and licence' mines went on to produce almost 20 million tonnes of coal for power stations and industry before they closed.

The mining assets of British Coal were sold off in five packages. The core three in England bought by RJB Mining transformed overnight what was a relatively small company to the biggest independently owned coal production business in Europe.

Mr Budge and his team took on the challenge of changing the culture of a business where more than 10,000 employees had previously only had one employer – British Coal – which had closed more than 100 collieries in the decade from the miners' strike ending to privatization being completed.

Armed with contracts to supply power stations in the Midlands, Yorkshire and the North East at guaranteed prices for three years, Mr Budge launched a personal hearts-and-minds campaign, convincing employees in an industry where tribal loyalties were rock solid, that he was in it for the long term.

There was investment in both deep and surface mines, new machinery accessing millions of tonnes of reserves, and a determination to maintain and improve health and safety standards.

A slump in energy prices in the late 1990s as coal supply contracts were being renegotiated dampened the appetite for the investment needed in an indus-

try typically facing a four-to-five-year payback and Mr Budge quit as the company's chief executive in the summer of 2001.

He then invested his energies and much of his personal wealth in securing a future for Hatfield, a colliery near Doncaster with substantial reserves and the potential to pioneer carbon capture technology, seen as an environmental lifeline for coal.

He secured foreign investment but little was forthcoming from the EU or the UK Government, which by then was promoting 'renewable' energies as the way forward.

Mr Budge was the driving force behind the foundation of the Confederation of UK Coal Producers (CoalPro), a campaign group which, for the first time, gave independent producers a voice in the corridors of power.

It had many successes – but failed in its biggest objective: to secure government and EU investment in clean coal carbon capture and storage technology that would have allowed Britain's most plentiful fuel to be utilized in a more environmentally acceptable way.

The decision sounded the death knell for the British coal industry, and the country's last deep mine, once owned and developed by RJB Mining, ceased production at the end of last year.

The Aggregates & Recycling Information Network

Luxembourg's asteroid mining bid is Europe's first

By Jacob Aron

Outer space mining has now gone global. This morning Étienne Schneider, the deputy prime minister of Luxembourg, announced a space resources initiative to encourage European asteroid mining activities.

US-based firms Planetary Resources and Deep Space Industries have already announced their intentions to mine minerals from asteroids for use in space and on Earth. These plans received a boost last year when US President Barack Obama signed into law the rights of US citizens to own asteroid resources.

Now Luxembourg wants a piece of the asteroid pie. "Our aim is to open access to a wealth of previously unexplored mineral resources on lifeless rocks hurling through space, without damaging natural habitats," said Schneider in a statement released this morning. "We will support the long-term economic development of

new, innovative activities in the space and satellite industries as a key high-tech sector for Luxembourg."

The country plans to develop a legal framework to define ownership rights over asteroid minerals, which are currently loosely defined. The Outer Space Treaty, signed in 1967, forbids state ownership of celestial bodies such as asteroids, but the legal position of private firms is unclear and the new US law may be in conflict with the treaty.

Orbiting infrastructure

Luxembourg already has space experience as a member of the European Space Agency, and the state is a shareholder in SES, a major satellite communications firm. Former ESA director general, Jean-Jacques Dordain, is advising the government on the new initiative. The country will also fund research into mining projects and may invest directly in asteroid mining firms.

The ability to mine asteroids in space should greatly reduce the cost of building infrastructure in orbit and on the moon, because we won't need to launch the raw materials. Asteroids also contain large amounts of precious metals and rare earth elements, making them valuable here on Earth as well.

"This is a highly ambitious move, displaying tremendous foresight and long-term strategy planning," says Greg Sadlier, space analyst at consultancy firm London Economics. "Asteroid and lunar mining are likely to be a commercial battlefield of the future, and this is the first European shot across the bows of US commercial ventures."

European experience with the Rosetta and Philae mission to land on a comet should prove useful, says Sadlier, seeing as the same technology can be applied to asteroid mining. But countries must hammer out legal agreements first, he adds. "Given the magnitude of investment involved, it will be essential to provide prospective investors with certainty of ownership of any returns."

New Scientist 3 February 2016

Burma and its gold

Ron Callender continues the memoir about his invitation to prepare an exhibition about Burma for the Gold Museum in Finland's Lapland and his subsequent visit to Burma, where he and wife Margaret experienced gold at first hand.

Part 3 : The production of gold leaf

Our guide in Mandalay, Ma Mu Mu, had a BSc in electronics and when she learned of our interest in gold, she arranged a visit to the workshops that 'manufactured' the gold leaf that is offered to Buddha in many of Burma's temples and pagodas. Negotiating a street where masons were converting lumps of dazzling, white stone into the likeness of Buddha, we arrived at a dilapidated workshop.



Fig 1 A Burmese boy making paper from bamboo. This paper does not adhere to gold and when used as interleaves, it protects the gold-leaf offered for sale.

No one challenged us on entry and as we watched a boy wrestling with a large tray of liquid, Ma Mu Mu explained he was making paper from bamboo leaves. Gold leaf would not adhere to the final product and later, we would realise the benefit.



Fig 2 Preparing gold leaf from small 2oz billets of gold by strenuous hammering. The men must make 120 strokes before the special clock (a 'clepsydra', which is made from a punctured coconut shell) sinks in the bowl of water

Next, we stood at a doorway in a dark corridor to watch three men relentlessly pounding a forming device with

heavy hammers. It became clear this was the first stage in converting a 2oz billet of gold into a long, golden ribbon. By the side, there was a primitive clock-system; a punctured coconut shell floating in a bowl of water and the men had to maintain 120 strokes before the shell sank. The heat was debilitating and the din pervasive; hastily, we exposed a sequence of photographs before moving on.



Fig 3 The extruder-device that controls the gold emanating from the gold billet during the hammering stage

The guide explained the various stages of the process. The initial billet emerges from an extruder to produce a ribbon which is $\frac{3}{4}$ " by 20 feet long. The ribbon separates into four equal sections, each of which will yield 200 small squares. A boy uses bamboo paper to protect each piece of gold and with the total batch now making a parcel, he positions it on a slab of rock. For about an hour, the men beat the parcel with their heavy hammers and flatten the gold squares, which

gr



eatly increase in area.

Each of these pieces divides into six and the beatings re-commence until after six hours of pounding, the end result emerges as over one thousand sheets of tissue-thin gold-leaf. In temperatures of 90 degrees plus, the men re-start the process with fresh samples of gold bullion but we shuffle into a small room, where girls sit around a large table. There is no eye contact or words of welcome.

Fig 4 Girls handle delicate gold-leaf while preparing the small booklets, which are sold in temples and pagodas.

The girls are concentrating on assembling interleaved 'pages' of gold-leaf into small booklets which comprise a cover design, a back page, two sheets of bamboo paper and a sheet of pure gold. A fine red thread secures everything in place. Once I discovered that each pagoda had its own distinctive design, I initiated a specialised hobby and now have a meagre collection of five different booklets, with little chance of additions !



Fig 5 The girls' supervisor follows the custom of rubbing a sample of gold onto Margaret's wrist for good luck.



Fig 6 Two samples of the completed production process

While staying at a 'hotel' of huts floating on balsa wood on Lake Inlay, my wife and I used our boat to visit a

village, Ywamaa. Here the Phaung Daw U pagoda houses five small statues of Buddha, but for eight hundred years, visitors have applied so much gold that the original shapes have melded into rotund, indistinct shapes. The temple was well-known for this latent wealth and our guide encouraged me to participate in the custom. Women are excluded from the privilege but there was a bonus; Margaret received permission to take one photograph whilst I scrambled onto the platform, wearing a longhi ! It seemed the perfect way to conclude our study of gold and the production of gold-leaf.



Fig 7 The author, wearing a native 'longhi', accepts the invitation to rub gold onto one of the now-distorted shapes representing Buddha.

Notes.

1. 'Ma' in the name Ma Mu Mu indicates that the lady was married. A very intelligent and resourceful person, she had been unable to find a job in the electronics industry, but her good English ensured employment in tourism.
2. Later I learned the 'clock' is known as a 'clepsydra' and, at the time, it was fascinating to watch it fill with water
3. The longhi is a native dress with separate designs for men and women, and is worn like a kilt.

Ron Callender

Friends of Hemingfield Colliery 5 July 2016 2nd Anniversary Open Day and celebration

Happy Birthday to us!

Saturday 25th June marked the 2nd Birthday of the Friends of Hemingfield Colliery – that is two full, colourful, fun, eventful and challenging years since the Friends first took over the pit, and started the long and steady process of salvaging, clearing, conserving and researching the history of Hemingfield Colliery, from its earliest days in the 1840s, through the end of coal winding in May 1920, and into its life as a pumping station. Surviving Nationalisation in 1947 and Privatisation in 1994, its two shafts, winding engine house and

Cornish engine house overlooking a purpose-built canal basin are a unique survival. And in celebrating all that's been achieved so far, the Friends, volunteers and supporters are looking forward to the year ahead to make further progress and continue the mission of saving the site, and sharing its stories with the local community.



Celebrations

The Friends arrived on site bright and early, with Chair Steve, and Site Manager Glen joined by regular volunteer John. Normal working party business was put aside this week, as the Friends and volunteers welcomed visitors on site, and brought out a host of goodies to celebrate the event.

Even the Elsecar Heritage Railway provided us with a suitably celebratory display – a double header train passing by below the pit.



Double-header train, Birkenhead and Elizabeth
Open house – visitors welcome

The Friends were joined by a number of friends and visitors during the day, including noted coal historian and author Brian Elliott who shared his knowledge of the area, and documents relating to the history of the site. We were fascinated to find Brian's book *Tracing your Coalmining Ancestors* includes details of an accident at Hemingfield in 1860.

<https://books.google.co.uk/books?id=m1pEBgAAQBAJ&lpg=PP1&pg=PP1&output=embed>

Likewise, local friends and ex-miners dropped by to say hello and see progress on site, as well as hear something about the plans for the year ahead.



Regular volunteers Nigel, Amanda, Keith and Chris joined us through the day, and spirits were kept high by Friends Director Christine appearing with further victuals.

Summertime...some of the time



The Friends got ready for the 2nd anniversary event, bringing food and refreshments, chairs tables and a sunny gazebo, ready to set out books, maps, documents

and photographs of the site's history. Meanwhile the directors wheeled out the barbecue and got cooking.



It was delightful erecting the gazebo under the main shaft headgear, but inevitably, cometh the barbecue, cometh the torrential downpour...



However, seeking shelter under the headgear, the fun continued, with a birthday cake emerging to mark the event.

Congratulations to the Friends, and many thanks to the volunteers and visitors who

support and contribute their time and efforts to saving this remarkable industrial survivor.

King Solomon's mines - Gold mines

Perhaps the most famous of legends concerning gold mining is the narrative of King Solomon's Mines in the legendary land of Ophir.

Solomon was the most prominent character of the Bible's Old Testament, he was the third King of Israel and his reign was between 970 and 931 BCE. He was a prolific builder, lover, sage and most of all the richest of all the Orientals. His wealth and wisdom was the envy of all his contemporaries such as the Queen of Sheba who traveled vast distances to court him.



Photo: Solomon's pillars near Timna valley

His love of Gold and precious metals and stones was so great that it is estimated that at the end of his reign he had accumulated 500 tons of Gold alone. Its value today would be worth over \$60 trillion. His prolific use of Gold is evidenced in the fact he had dozens of drinking cups made from pure Gold. His palace was adorned with 300 shields beaten from pure gold. His great throne was made of ivory and gold and flanked by 12 life size eagles and lions made from gold.

The question is were did he get all this gold?

The Bible book of 1st Kings 9:26-28 tells us, "King Solomon also built ships at Ezion Geber, which is near Elath in Edom, on the shore of the Red Sea. And King Hiram sent his men, sailors who knew the sea, to serve in the fleet with Solomon's men. They sailed to OPHIR and brought back 420 talents of Gold which they delivered to King Solomon." KJV.

Possible Location.

The location of this mythical land of Ophir is not revealed in the Bible, thus its exact location has remained a secret down to this day. The 420 talents of gold which they brought back on this one trip alone would be roughly 20 tons. There has been plenty of

speculation as to its whereabouts, such as Africa, Asia or even as far as the Americas. The current thinking is Pakistan, southern India, Sri Lanka or Yemen.

Conclusion

A mythical land it may be but the fact remains that Solomon used vast amounts of gold for personal use and in his worship. All that gold had to come from somewhere. To liberate 500 tons of gold from gold bearing rock must have made a scar somewhere on the surface of the earth. The building of ships to transport gold and other metals indicates that water was between Solomon and his gold. Seafaring ships capable of carrying 20 tons of gold and experienced sailors suggests distance was involved. This was a major mining operation even by today's standards. So we wait to see what will develop in man's quest for the golden eldorado of Ophir. However we can still see some evidence of Solomon's other mining operations even today, his Copper Mines.

The Copper Mines of Timna



Photo: Copper mines in Timna, 35km north of Eilat, March 2007 (photo credit: Doron Horowitz/Flash90)

New archeological finds in the Timna copper mines have been radiocarbon dated to the 10th century BCE. This indicates that they were active during King Solomon's reign. Before these new finds it was thought that the mines dated from around the 13th century BCE and were operated by the Egyptians.



Photo: Copper mine pit in the Timna valley

Nelson Glueck a prominent archeologist has found remains of human habitation on the site which dates it to the time of the Israelite kingdom.



Photo: Another copper mine pit in the Timna valley
Scope of the workings.

A statement by Ben Yosef said "the Timna valley, (now a national park) was a copper production district with thousands of mines and dozens of smelting sites". The latest excavations have been in an untouched area called Slaves Hill. Remains of furnaces and human detritus confirm the Biblical chronology and dating. The infrastructure that has been identified demonstrates that an advanced smelting process was employed. The camp layout indicates a large human resource and social organisation with considerable logistics being employed to service such a remote site.



The scope of the working covers several kilometres. Copper deposits still remain today.

Copper usage in the 10th century BCE

The extent of copper usage in construction during Solomon's reign is huge. In the Bible book of Chronicles it states that coppersmiths were employed to beat, cast and shape copper. It was used for supporting pillars and beams on large capital projects also for ceremonial use in worship. The utensils used in food preparation were often made of copper. The everyday use of this versatile material would be equivalent today to that of plastic.

Conclusion

To Solomon's impressive list of talents and accomplishments we could add industrialist. It has been said that Solomon's reign was the most peaceful and prosperous of all the kings of the Israel. He built a nation out of a small provincial state that was the envy of all his contemporaries. Underpinning all of this was his use of the earth's natural resources to develop society. His legacy is still talked about today and his archeology is a fascination to modern man.

Graham Topping

What Is Mining Subsidence?



Subsidence is a localised lowering of the land surface. It occurs when an underground cavity or void collapses mainly due to mining activity below the ground. Today it is quite common to hear of sinkholes being reported in the media and their occurrence is often the result of previous mining activity in the area.

Other potential impacts of subsidence are:

1. Structural damage to buildings and services inc pipelines and sewers.
2. Surface cracking, especially in areas toward the edge of the mining activity.
3. Fracturing of shallow aquifers thus reducing their efficiency and disrupting ecosystems.
4. Surface water diversion away from rivers lakes and so forth.



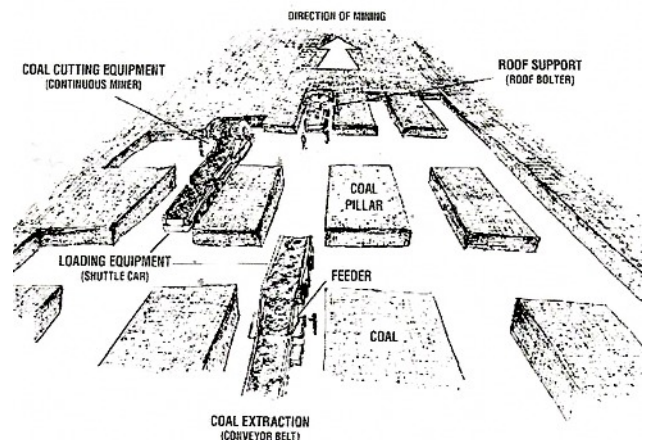
A sinkhole in the North East of England which appeared over night.

Causes of subsidence.

In areas where coal mining has taken place many decades ago the method of extraction was by "room and pillar" with pillars of coal being left for support (see drawing).

As the condition of the pillars deteriorate through water erosion and age the overlying strata compresses the pillar walls. This results in the strata cracking and fracturing and thereby collapsing into the mining voids. This In turn causes the collapsing of the the

ROOM AND PILLAR MINING



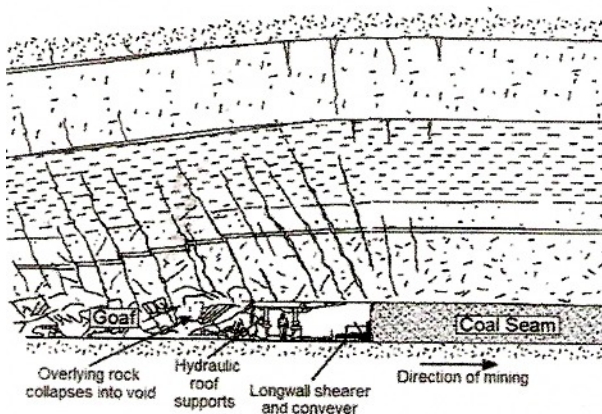
remaining strata and its effects are transmitted vertically toward the surface resulting in subsidence.

In simple terms when the roof of a deep mine collapses, it causes the ground above to sink or subside. The process of collapse can take a long period of time after mining has ceased, but most room and pillar mines will eventually suffer some degree of collapse.

Long wall mining

This type of coal mining was adopted after the nationalisation of Britain's coal industry in 1947. It is both safer and more productive than other methods of mining. It involves the extraction of large rectangular block of coal by progressively shaving slices off the coalface. This type of extraction has developed over time but it is now a highly mechanised operation. The

most up to date operations employ hydraulic walking chocks to protect the coal face from collapse. This method removes all the coal from the longwall face and allows the roof and overlying strata to collapse in the void left behind.



Modern longwall mining system

With this type of mining the overlying strata tends to come down gracefully rather than collapse. This is transmitted to the surface and subsidence usually occurs within a few days. Once this has taken place further subsidence is minimal.

Can the effects of subsidence be predicted?

(Yes)

The measuring and recording of existing mining sites can be used to predict the likely magnitude of subsidence in new proposed sites. The following numerical equation can be used but there are many unknown factors that could effect its accuracy.

The amount of subsidence can be calculated roughly by using the formula:

$$s = \frac{4t}{\sqrt{d} + 4}$$

where s is the amount of surface subsidence (in m), t is the thickness of the worked seam (in m) and d is the depth to worked seam (in m)

The industry's most favoured method is the experienced-based approach of empirical methods, where local knowledge plays a big part in the prediction process.

How is subsidence measured?

In old mining areas such as the one highlighted above with the sinkhole, subsidence is effectively measured by the visual impact it creates and leaves behind. In current mining areas a number of techniques are employed such as the following:

- Ground surface surveys.
 - Airborne photographs.
 - Satellite based systems.
 - Ground surveying by global positioning systems.
- In most cases a combination of all of the above are used.

Can the effects of subsidence be minimised?

(Yes)

With old mine working the impact of subsidence can be minimised by the adoption of modern construction techniques for buildings. This might include pile driving, reinforced strip footing and concrete slab foundation being employed. All of these measures are designed to reduce the potential of the visible effects of subsidence.

With current and proposed mining operations, factors such as the following should be considered.

- Accurate geological information reports.
- Physical testing of the ground.
- Computer modelling of subsidence.
- Good underground planning practises
- Positioning of mining sites in relation to human, heritage and infrastructure to minimise impact.

Regulation

All mining operations are under the control of the coal authority. Stringent regulations are applied to all operations. Factors such as Subsidence Management Plans (SMPs) have to be in place before operations begin.

An adequate insurance scheme has to be in place. The emphasis is placed on the management of any potential subsidence by the prediction of it and thus avoidance rather than mitigation of damage.

Conclusion

As of the 18th of December 2015 there is currently no deep mining taking place in Britain. So the potential going forward in relation to subsidence is drastically reduced. The historical cases of collapse or subsidence that flash across our TV screens tend to be localised in scope. The Government have the ultimate responsibility for any future compensation claims (HMRC subsidence claims). The future looks rosy in this 'green and pleasant land' but our energy and fires are fuelled by countries who might just be suffering from a sinking feeling.

Graham Topping

Dinas Quartzite Mine

By A.D. Semmens

The Dinas Quartzite Mine at Pontneathvaughan, owned by RTB (Richard Thomas & Baldwins Ltd) is probably rarely visited but in any case it is well worth description. As well as being out of the way, and as a further trap to the unwary, the place is shown on all maps in the Welsh fashion, Pont-nedd-Fechan.

A minor road leads off to the left just after the Onllwyn road has left the main Neath to Hirwaun road in Glynneath. This road continues for about a mile and a half into the village of Pontneathvaughan, where a right fork is taken on to the minor of two roads. Continuing for about half a mile the road ends and you take the right hand side of a pillared gateway, immediately turning right into a quarry. This is the disposal point for the quartzite which is conveyed to the mine by aerial ropeway. To get to the mine the left hand track

is taken, passing under a structure something like a church lych-gate, which is a protection against any falls from the aerial ropeway. The track bears sharp left under another lych-gate and winds its way up through a valley with steep cliffs. About six hundred yards on the track ends at a most beautiful spot – a tumbling waterfall with lovely vegetation and scenery. At this point the rail track begins with a wooden bridge on a gradient of about 1 in 3, spanning a gap to the cliff top. This is the only way into the mine, and everything is brought up this way. From the top of the incline the railtrack winds its way upwards on a very gentle incline, slowly curving right. The incline then steepens sharply to about 1 in 15 on a short haul to the top, where it turns sharply left into the mine adit.

The mine closed for production in September 1962, being officially “stopped temporarily”. Only the manager and one other man were working here in August 1963, and the manager was delighted to take me down the mine to see his one remaining locomotive. We proceeded to light acetylene lamps, and wound our way down the rather wet workings to a dry spot about four hundred yards down where stood 69, a four-wheel diesel, Ruston & Hornsby 201996 of 1940. Very obviously ex-Government, Mr Thomas said it had been received from a London dealer about three years ago; another Ruston had gone back to him in part exchange. Two other Rustons had been sent down to RTB’s Landore Works when the mine closed, as both wanted attention, and they are now in store there following overhaul. (A visitor to the mine in May 1961 noted three Ruston diesels, but not the one cited above which presumably was down the mine at the time.)

The mine has been worked since the 1830’s, and there are some fairly steep cable inclines going down into the bowels, most of which are now flooded. The present modus operandi is cable operation to an adit top immediately above the one which forms the mine entrance, where a small gantry line leads to the aerial ropeway. The latter climbs up one side of the hill, and from there the topmost pylon carries the full strain of the drop to the bottom; the manager said it was the longest aerial ropeway span in the country. He is proud of his mine, although its future is one with a large question mark. Quartzite is extensively used for steelworks furnace linings but demand has dropped sharply, for RTB’s new Spencer works uses none at all.

Industrial Railway Record No 7, September 1965

I recently acquired some early issues of the journal of the Industrial Railway Society, in one of which I found the above article. I felt that it might be of interest to members of the NMRS, so it is reproduced courtesy of the IRS, who retain the copyright.

Rob Needham

Obituary - Steve Croft



Photo:- Preparing to photograph an elusive mine - turned out to be a water tank for Bewerley Hall.

Steve died suddenly on 20th April following a stroke at his home in Rookhope, Weardale, where he had lived by himself for a number of years. I first met Steve around 1980 when he answered the call of Greenhow Hill as I had done a few years earlier. Within a short time both Steve and I were travelling up to Greenhow every weekend and staying with Paul Webster at Duck Street. We spent many weekends exploring mines all over the north of England and, of course, sampling the local beers; aided by some other Society members who shall remain nameless.

Steve was an easy going quietly spoken chap, enjoyed his Marlboro’s and beer and was rarely seen without his flat cap. He was a keen photographer and usually had an Olympus SLR hanging from his neck, and another couple of bodies plus a mass of lenses in a bag the size of a suitcase. Before he got into mining he was interested in vernacular architecture and would point out various building forms as we passed them.

He married and moved to Rookhope around the millennium and apart from the occasional meeting, we lost touch. I am told that his marriage didn’t last and ended in divorce a few years ago.

Malcolm Street

NZ Department of Conservation, The Gorge Express, Denniston Experience, Denniston Road, Denniston, South Island

This is a mine experience at a historic coal mining site on a high plateau overlooking the coast. The train operates along the trackbed of a former 2ft gauge ropeway into an old coal mine. The battery locomotive

was previously used in coal mines nearby. It has been rebuilt and equipped for train air braking. The attraction is operated as a concession under the ownership of the Department of Conservation. The concession holder is a mining engineer from Wigan.

John Browning, Narrow Gauge Railway Society (news report in NGRS newsletter)

Something different to finish Collieries in Czech Silesia

DUL AUSTRIA/BARBORA/PILSUDSKI/
1st of MAY/BARBORA 1907-1992

Between 1918 & 1920 the pit was in Poland.

After 1950 OKD merged the pit with DUL GABRIELA/MIR & DUL HOHENEGGER to form DUL 1st of MAY. Finally after 1972 DUL MIR No's 4 & 5 which later became DUL DARKOV. From 1992 coal produced in the BARBORA workings was raised at DARKOV.

The 48m high WALSUM-Type Winding Tower shown was erected in 1950 and by 1961 it was equipped with two 5,000 hp Koepe Electric Winding Engines.

**Photo and caption by Nick Kelly
(2016)**



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