



Newsletter

nmrs.org.uk

August 2011

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Jottings from the President

I hope you have all found a good home for your **NMRS Flyers**. If you want some more please let me know. We were recently in Cornwall where we left a trail of them in libraries and tourist offices where we could. While there we visited the small museum in St Agnes. It used to be a lovely, interesting place – full of items of local interest including a lot of exhibits relating to the rich mining history of the area. Now, after a revamp, it is as if mining hardly had any influence on the area. After questioning some attendants, we discovered much is now in storage. This is just another instance of why we need to promote further interest in mining history and preserve as much as possible before it is too late.

Rex and I were at the **Ingleton Bookfair** in May and were pleased to meet some of our members there. Some we already knew, others introduced themselves which is very satisfying. The bookfair took place while Ingleton Overground Underground was on. One of our members, Bernard Bond, was very involved with this (see his account elsewhere in this Newsletter) and all his hard work is greatly appreciated. Also at the bookfair we had the space to display the super NMRS boards designed and made by Ron

Callender. One is a general one advertising what our society does and two are to promote our latest BM “Mines of the West Pennines” and the “Scottish Gold Rush” Their next outing will be at the BLMDA Gem & Mineral Fair at the Pavilions of Harrogate, August 20th and 21st. We are also very grateful to North West Book Fairs for providing us with a table at the Ingleton event and we have already taken up their offer for another table at the September 11th event, again at Ingleton Community Centre. We hope to see more of our members there.

Regarding **BM91 “Mines of the West Pennines”** a very small number of our members have contacted me regarding our latest publications. Unfortunately they have received copies with pagination errors between P34-86. It would appear that a small number had printed errors, been put to one side at the printers, and then put back into a part box which was delivered to me. Members who have contacted me so far are all alphabetically linked more or less together, and have had replacement copies sent to them. If you have not yet had the chance to read your copy please check yours and let me know if you have a “rogue” copy which will obviously be replaced. I apologize for the unavoidable error and since being told am checking

Editor

David R Neal

Lluest Fach, Llwyn y Groes, Tregaron, Ceredigion.
SY25 6PY

Tele:- 01974 821213

Email:- dgmail22-nmrs@yahoo.co.uk

Would you please note that the deadline for inclusion with the November Newsletter is the
30th October, 2011

Submissions are welcomed 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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Printed by *The University of Wales, Lampeter*

all copies that now leave here.

Included with this newsletter is a booking form for our **Autumn Meeting**. It is to be held at the Festival Hall, Gisburn. Gisburn is at NGR SD8248, near the junction of the A682 (Burnley/Long Preston) and A59 (Skipton/Clitheroe) roads. The Hall is east of the A682 road to Burnley. From the A59, turn south on the A682 by the deli/cafe shop and then after a few yards, left into the free car park near a playground. From the north on the A682 turn right at the roundabout near the Church and then left after the deli/cafe shop and left into the car park. From the south on the A682, turn right into the car park by the children's playground. After a free lunch (booking is essential – see the enclosed booking form), there will be a short business meeting followed by presentations. Please let me know if you are prepared to help with these. It is always interesting to know what other members are doing or about their related interests. As usual there will also be some bargain NMRS publications available. For those whose "significant other halves" would like a day out there is plenty of walking in the area, not to mention the "shop till you drop" experience at Boundary Mill Stores at Colne.

Perhaps some of our members are unaware of some **Garmins**, a GPS system, which our society has available for loan to our members. Peter Pearson has kindly offered to handle any loans and store the items. He can be contacted at peterpearson@aol.com. There will be a need for members to sign a loan form when borrowing them and to agree to a return date which can be extended if necessary and if no-one else needs them.

Thanks go to the people who lead our **NMRS Meets** and to those who send in reports for our Newsletter. There must be many of our membership who are interested but unable to go on these meets. Please do make sure you book your place on each meet so that the leaders are aware of who exactly is turning up. Also if the meet is an underground one there are often interesting features above ground for you to see if you do not relish an underground activity. Again please check with the meet leader.

We are always indebted to members who **donate NMRS Publications** back to us, especially the out of print ones. After recent donation I have found good homes for these. Members are really pleased to be able to obtain our publications at a sensible price (and with the added bonus of a 25% discount) and at the same time the extra money is helping our society. I now have waiting list of BMs needed by various members and would like to be able to help them. Please if your copies are gathering dust or you are down-sizing consider donating them back to us. This

also applies to any mining or related books. If not already in the library we would sell them in order to help the society.

We are very fortunate to receive a **NMRS Newsletter** on a regular basis four times a year. Since August 2009 this is thanks to David Neal, our Editor. As announced at the AGM he will not be standing for re-election next March so we are urgently looking for a new Editor to take over from him. David is kindly offering to help anyone volunteering prior to his retirement. We do hope someone will step forward to continue our excellent track record which brings so much pleasure to our members.

Sadly we have had notification of the deaths of four long-standing members. D. Coates died last year and on 15th January 2011 Anthony Owen died. Barry Jones died in April 2011, and his widow, Joan would like to thank all our members who corresponded with him online and say he really enjoyed receiving our newsletters and publications. His death took place in his beloved Yorkshire, an area which sparked his interest in mining which in turn led him to our society. We have also lost one of our Publications author's, Dr Timothy B. Bagenal who died on March 2nd 2011. He was responsible for the BM 62 Monograph which resulted from his interest in the human population history of the Swaledale area. His other interest was fish and he wrote/edited "Methods for the Assessment of Fish Production in Fresh Waters" in 1978 as well as other books on fish. Thanks to Mike Gill for letting me know of this interest. Condolences have been sent to the families of these members on behalf of the Society.

Barbara Sutcliffe

Forthcoming Meets

Saturday 10 September

Underground meet at Brownley Hill Mine, Nenthead. Easy dryish mine. Meet at 11am in the Nenthead Heritage Centre car park NY 781435. Nenthead is on the A688 Alston/Weardale road.

Leader Paul Dollery, 01937 580 579.

Saturday 22 October

Autumn Meeting, starting with a buffet lunch at 12.30pm. Gisburn Village Institute. Volunteers who can give presentations, or show photographs of meets, would be very welcome.

Contact Barbara Sutcliffe on 01282 614615 or email to mansemins@bopenworld.com

Sallie Bassham

Up hill and down dale ...

The society's programme of the year's events said it was "A surface walk of Bordley lead mines," but in the end, the walk proved to be an outing that would have done credit to the SAS. But no one minded ... the sun was out and it proved to be a brilliant day ... a great day for appreciating the limestone geology of Malham Moor and locating enclosures, dressing floors, spoil heaps, open veins and capped shafts.

Margaret and I turned up promptly at 10.15am. We were not sure if we were on the correct side of the moor, but a cheerful welcome from the leader-of-the-day, Janis Heward, provided the reassurance we needed. "How many do you expect?" I asked. "About three," replied Janis, "and we will hang on a bit." While we waited, a man joined us to ask if we were NMRS, and then disclosed that the ten persons (and a very patient greyhound, called Blue) nearby were waiting for the leader. Confusion was promptly resolved and we gathered around for a roll call and our first briefing.

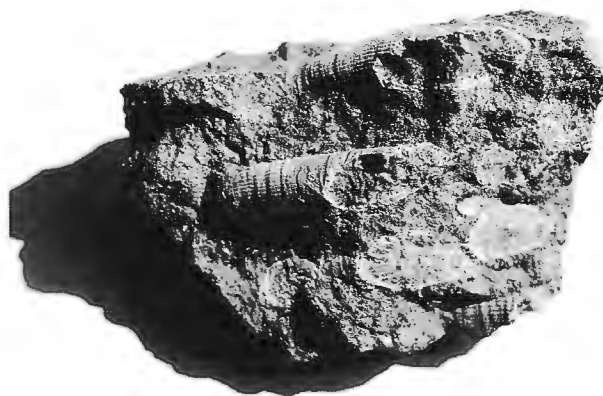


The cairn which was a small speck on the horizon at the start of the walk

Janis pointed to a just-perceptible cairn high on the skyline. "We will make for that cairn by following the edge of the fields." It was simple; we just trudged up, and up and up - with a welcome pause at the third field. The first few features within the boundary of the ancient Bordley Township were coming into view and Peter Claughton augmented Janis's explanations with his own interpretations, using the vast backdrop of the moor as a colourful visual aid. He promised shafts and enclosures very soon and the pace quickened. The cairn was very close by now and as we arrived in dribs and drabs, off came the rucksacks and we settled down in groups for lunch.

But he knew there was more to come and moved everyone along. An open shaft grabbed the attention; we paused, speculated and looked into the empty darkness. Stepping over the exposed limestone of an enclosure wall provided another diversion - fossils and coral embedded at the surface. First one, then

more, and the quality of the specimens improved as Will concentrated on locating fossilised shells and crinoids ... life forms of three and a half million years ago - just waiting discovery. We climbed a wall and one of the stepping-stones disclosed a perfect shell in cross-section. There were bits of galena to harvest and during the afternoon, better and better specimens turned up.



A beautiful specimen of crinoids in plan view and in cross section

Janis explained the sink-hole, where the limestone has collapsed to create a huge depression in the ground (and Wikipedia offers a choice of sink, shake-hole, swallow hole, swallet, doline or cenote), but by then Peter had assembled a group around "what might have been a dwelling". It looked like a dwelling, but was it a burial chamber, or a shepherd's refuge, or an ecclesiastical hermit's cell? This is yet another conundrum for Janis to add to her Bordley Township project.



Peter initiated much discussion when he Stated "This might have been a dwelling; what do you think?"

We climb once more to higher ground for the start of our return journey. By now the benefits of society membership had been highlighted - here was an assembly of enthusiasts for mining, amateur and professional experts, qualified in subjects such as geology, archaeology and history, who were willing

to exchange views and put forward interpretations ... or just provide very simple explanations for the novice.

When we skirt the cairn where we had lunch earlier in the day, the sun is still pretending it is mid-summer. Janis's party is now spread out and members are going their own pace along the only flat path we have seen for six hours.

Margaret and I have to return to Cheshire and we make for our car, determined to drive home without delay but, on seeing a teashop in Carcoe that closes at five, we break our own rule. It is two minutes to five but there are no problems when we order a large pot of tea, and after refills, we are refreshed enough to state the obvious, "It is a good way to end a perfect day!"

Janis Heward deserves full marks for her dedication in bringing this exposed moorland and its former history back to life. Her preparation for the outing was faultless and it was a good idea to have Peter on hand to supplement the commentary.

Ron Callender

Hanber Side levels and the Pikedaw calamine mine

(Saturday 14th May 2011)

It was a bright morning but with a cold north easterly blowing when ten of us assembled at the National Park car park in Malham. Our trip began with Michael's introduction to the minerals and geology of the area with some good specimens of Galena, Cerrusite, Anglesite, Azurite, Malachite, Chalcopyrite and different varieties of Smithsonite or calamine on view.

We climbed quickly up Pikedaw Gill towards Hooper Edge and Hanber Side along the line of the Mid-Craven fault, with the limestone of Pikedaw to the north of the fault and the younger Upper Bowland Shales, Pendle and Grassington Grits to the south.

The lead veins here had been exploited through adits and one open working in the bottom of the gill had a small spoil heap before it. The opening provided for the first underground exploration of the day; a short working with shot holes and some deads.

As we ascended we looked for evidence of shafts recorded as being in Pikedaw Gill. Near the top of Hanber Side, just below the cairn of Pikedaw Hill, was a line of old workings running northwest to southeast along a vein not marked on the geological map. Lead-tolerant mountain pansys were particularly abundant and gave a good indication as to the extent of the spoil adjacent to the workings.

Lunch was taken at the portal of another level in foot of the valley with an 1872 date stone. Here was a more substantial spoil heap. According to Raistrick, in 1887



a block of galena weighing one ton had been got in one of these levels and it was shown at an exhibition in Newcastle.

On up the hill to a mined cave, again the extent of the spoil indicated by leadwort and mountain pansys. GPS readings confirmed that this was most probably the 'Mined Cave, Attermire' described in the 1960's. Lamps were produced and the passage was investigated; a low dry passage leading to a junction, one arm of which was explored but ran out. Silicified and dolomitised limestone 'ribs' occurred adjacent to the cave entrance.



We walked up onto a plateau and followed a north east trending mineralised fault shown on the surface by shake holes and Low Grit Pot. The cold wind made its presence felt as we reached the high ground. Leadwort was in abundance on the spoil around the concrete cap of the new calamine shaft (sunk in 1806). Under the iron trap door the metal ladder extended only a few feet into the 23m shaft which prevented further exploration!

Through Pikedaw Head Gate to the 'copper shaft' heap. Some of the heap had been used to fill the copper shaft which had also been the first entrance to the calamine mine. Here also was the site of the early 'calamine house'. Although we did not have time to

explore the dressing floors which had served the mine, there were samples of azurite and malachite to be had from the spoil around the shafts.



Heading north west we made our way round to the caves at Twin Bottom. Here the limestone dipped gently to the east and iron-rich solutions had deposited ochre (iron oxide) along the bedding plane. In the past the ochre had been mined for use in paint manufacture.

The dark holes again proved irresistible to the cavers in the group. Back south along the line of a vein with some silicified limestone boulders.



With the wind now at our backs we followed the bridle path east to the Cove Road, with splendid views along the line of the Craven faults to Greenhow, across to Embsay and Addingham Moors and with Nab and Bouldsworth in the far distance. A narrow packhorse track which had served the mines took us back to Townhead in Malham. Here was a large house with a fine frontage and portico built on the profits from the mines. A little further on, just above the Cove Road, was an old building most recently used as a dairy but what was believed to be the Calamine House where the ore was processed and stored prior it being transported to Gargrave for shipment on to the Cheadle Brass Company in Staffordshire.

It was a varied walk with a range of interesting

features both above and below ground. Thank you to Tom Knapp for planning and leading the walk and to Michael Squirrell for sharing his expertise and research.

William Varley

Smallcleugh Mine, Nenthead

The National Trust is currently building itself a new web site that will focus much more on individual locations and the wider range of activities available at each of them

So says Ian Hopper of Adventures North-East a company that he and John Chamberlain set up six years ago. Joining forces with the National Trust they arrange visits to mines such as Tyne Bottom at Garrigill *"...it's got a really good crawl in it, so if anyone is a little claustrophobic, that gets the heart going....it's a trip people always remember!"*

Another one visited is Smallcleugh Mine. Ian goes on to say *"we end up in an enormous chamber called the Ballroom where we light candles and serve bacon sandwiches; a candle lit dinner in the Ballroom! As an ex-geography teacher who also taught history, I just love that trip. There are 200 miles of passageways under Nenthead and 90 mine entrances. Most of these passageways are closed nowadays but 30 - 40 miles are still accessible."*

The National Trust is expanding its appeal by introducing an outdoor programme that makes the countryside more accessible and enabling people to choose from more than just going to a property to do a tour. *"It's about getting kids outdoors again and their parents out of the armchair - it's about families having fun together!"* says Eric Wilton, the National Trust's countryside manager for the North-East and Yorkshire.

David R Neal

From an article by Helen Compson
Hexham Courant (22/07/2011)

Other details from www.adventurenortheast.co.uk

Low Slitt Mine at Westgate

Designated as a Scheduled Monument, and among its interesting features are the stone base for one of Armstrong's hydraulic engines (which served as a winding engine for the shaft), a row of impressive bouse-teams and an ore washing and dressing floor.

As well as being a nationally important industrial heritage site, the mine is also part of a designated Site of Special Scientific Interest (SSSI), partly for the botanical interest of the lead-tolerant plants that grow on the old washing floor. Natural England and English Heritage stepped in to conserve the site after concerns were raised in 2007. English Heritage immediately funded some of the more urgent work required, a full conservation project, funded through

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Natural England's agri-environment schemes, began in the summer of 2009.

The AONB Partnership has produced a new 20-page colour booklet for a self-guided geology and mining-themed trail around Slitt Wood in Weardale. Price £2

For more details info@northpenninesaonb.org.uk
(Text from AONB North Pennines News)

Stanhope Burn Mine

After a successful trip to the Rogerley Mine eight of us, led by local man Peter Riley, made a visit to the remains at this mine. The top two pictures were taken by me thirty years ago; the bottom one in July 2011!

David R Neal



Advance Notice of a Day School

to be held at Fremington Sunday School
Saturday, September 10, 2011

Looking at aspects of the Archaeology, Landscape and the Social and Industrial History of the Dales

In honour of Lawrence Barker

Main Speakers

Tim Laurie - SWAAG

"A detailed account of the archaeological landscapes of Reeth Low Moor and Reeth High Moor"

Robert White - Senior Conservation Officer, Yorkshire Dales National Park Authority

"An aerial perspective of the historic environment of Swaledale and Arkengarthdale"

Duncan Bythell - Local Historian

"The Rev James Wilkinson (1805 - 1866) and the regeneration of Victorian Keld"

Keith Sweetmore - Archives Development Manager, North Yorkshire County Council Record Office

"Out of Court: The Beldi Hill Dispute"

Richard Smith - NMRS

"Bale Smelting in the Dales"

Mike Gill - Mining Historian

"The future of mining history in Swaledale and Arkengarthdale"

Short Papers/Posters

Ian Spensley

"Mines, Miners and Houses"

Janet Bishop

"Women and Mining Communities in the Dales"

Helen Bainbridge - Curator, Swaledale Museum

"WEA Research & Swaledale after the Lead Mines had closed"

Bookable Tickets: £10

For further details contact

Helen Bainbridge
Swaledale Museum, Reeth,
North Yorkshire, DL11 6QT
Tel: 01748 884118

e-mail: museum.swaledale@btinternet.com

Meets

Thank you to everyone who has led meets this year. I am starting to draw up a programme for 2012 and have had a couple of volunteers. More volunteers are needed! Please get in touch if you can offer a surface walk or an underground meet.

I would also like to remind Members of the notice on your membership card:-

ALWAYS contact the appropriate Meet Leader if you intend going on a meet, please.

Dogs are not allowed on some sites:- please check with the Meet Leader before bringing a dog

Sallie Bassham

(sbassham@nildram.co.uk or 01524 241851)

Gold in the Hills!

An exhibition of celebration

In 2008, Ron Callendar realised he had been interested in the discovery of gold for over sixty years, and in that time he had photographed gold specimens, gold mines, gold prospectors and travelled to the important gold mining centres of the world. As the European Editor of *Modern Gold Miner*, he had written and lectured extensively on the subject and in 1990, published the book, *Gold in Britain*.

His collection of images exists as snapshots, thumb-prints, sketches, album, books and illustrations featuring aspects of the process, Ron perfected a style of lighting for underground photography, which he calls "painted light". In addition, he has washed for samples of his own gold, retraced some of the steps of the Forty Niners in California, immersed himself in the gold rushes of Lapland, Australia and New Zealand, and competed in gold panning championships in Finland, France, Italy, Austria, Scotland, Wales and the United States of America.

With support from the Heritage Lottery Fund, Ron coaxed three colleagues to co-operate with him in a research project of six separate activities, which successfully documented the remaining traces of the Scottish gold Rush of 1869.

This year, he has reserved an open-to-the-public gallery at Castle Park Arts Centre in Frodsham, Cheshire, from the 10th August to 19th September 2011 and intends to stage an exhibition that combines artefacts and pictures to celebrate a life-time involvement with the yellow metal.

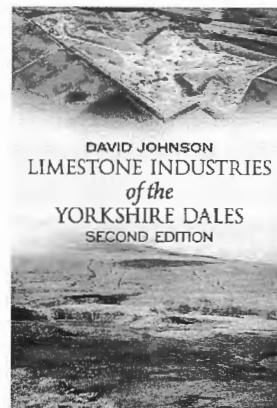
Dr R.M. Callendar, FRPS
Finlaggan@hotmail.com

Limestone Industries of the Yorkshire Dales

Second Edition

by

David Johnson



The first edition of this title is a classic text which is regarded as the definitive work on limestone extraction, processing and use in the Yorkshire Dales.

Lime has been an essential ingredient in many industries and its uses in plaster, mortar, agriculture, soap-making, tanning, paper, disinfection, veter-

inary medicine and lining dew ponds are described. One could add that significant quantities have been used in the chemicals industry and in smelting. Like its predecessor, the book describes the history of lime usage, the technologies used for burning lime and accounts of the several Dales quarries and limestone companies. The development of kilns is described, from medieval clamp or sow kilns through the familiar field kilns which populate the Dales to industrial kilns such as the Hoffman kilns at Ingleton and Langcliffe, and the continuous kilns of later years. There have been many variations within the generic types of kiln and Johnson gives detailed descriptions of the installations at most of the major sites.

This book is well-presented with 173 illustrations, 47 colour of which are in colour. These are a particular strength of this second edition and include line diagrams as well as many old prints and photographs. There are appendixes of recorded quarry accidents from 1866 to 1983 and a list of long-service records from more recent years. Each chapter is well referenced and there is a glossary, bibliography and index. The style is both authoritative and readable and the price is right for a book of this size. If you are interested in industrial archaeology or the Yorkshire Dales and do not have a copy of the first edition of this book, then this is well-worth buying. Owners of the first edition should take a look also as there is much new material here.

Richard Smith

Johnson D., 2011,

'Limestone Industries of the Yorkshire Dales',
Amberley Publishing, Stroud, Gloucestershire, pp.

320, 248 x 172mm,

ISBN 978-1-4456-0060-4. (£18.99).

Cornish Snippets

Visitors to Cornwall may have already been to Caerhays Castle, visiting the gardens, famous for their camilias or taking a tour of the Castle. Now there may be a future added sparkle for people interested in mineral specimens.

The Williams family were once owners of the property and they were very prominent in the development of Cornwall's Mining History. Part of their vast mineral collection has lain largely unnoticed at various locations for over 100 years. Now the collection is receiving much attention and will form an important part of the house tour as work progresses.

Courtney V Smale was invited by Charles Williams in June 2008 to assess the Caerhays' mineral collection. Some were in glass cabinets but not many on display. Other specimens were found in cupboards, in drawers in the vegetable room, in an old cold store another hoard in the cellar. Since then cleaning and cataloguing has taken place culminating in Courtney taking a cabinet full over to Tucson, Arizona for this year's world famous mineral show where great international interest was shown.

Parts of the original collection have been donated or sold in the past but enough remains for it to be a significant collection. More details of the castle can be found on www.caerhays.co.uk

A half page article and photo in "The Daily Telegraph" in February implied that "*in a remarkable partnership of old and new, Cornwall's tin mines are poised for a return to their glory days thanks to the global demand for indium*". This is used in the liquid crystal displays on televisions, laptops, smart phones and Apple's iPad.

According to the article large deposits of this rare element had been found at South Crofty, near Redruth and the owners of the tin mine were said to be confident that, if their initial tests are proved to be correct, they will be able to start digging out millions of pounds of indium, alongside zinc, copper and gold.

Barbara Sutcliffe

The Williams Mineral Collection

by Courtenay V. Smale

Recently published by Pasticcio, a specialist Cornish Book publisher – www.Pasticcio.co.uk - this small paperback book of 24pp provides an introduction to the valuable mineral collection held at Caerhays Castle in Cornwall.

The Williams family ranked alongside the greatest of the Cornish collectors and established a collection which not only represents Cornwall but contained specimens from many parts of the world. The book traces the history of the Williams family with the

emphasis on mining followed by details of the collection as it is now with some lovely full colour photos of some of the specimens. An interesting book but at £6 and with postage extra I feel it is rather expensive.

Barbara Sutcliffe

Future of the UK Journal of Mines And Minerals

Following the retirement of Jean Spence and Mick Wolfe, who have been indispensable members of the team for many years, there has been some uncertainty as to the future of the UK Journal of Mines & Minerals. We are pleased to report that the UKJMM will continue in its current form. With the support of subscribers, authors and advertisers, we will continue to develop the journal as a repository of information about British mineralogy.

UKJMM Issue 32 will be the last to be covered by current subscriptions. New subscriptions will begin from issue 33 with an additional option to pay using Paypal via the UKJMM website. Further details and information will be included in the next issue and on our website www.ukjmm.co.uk.

UKJMM 32 is given over in its entirety to a single long article describing the minerals of Dolyhir Quarry. Dolyhir Quarry is one of the most important new British discoveries of the last decade, with numerous rare and unusual minerals, and we believe a full, well illustrated description is justified!

David Green

Library News

Thank you to Brian Mason for boxes of fascinating material including Memoirs of the Geological Survey for Mallerstang, several Minutes of Proceedings of the National Association of Colliery Managers, Geological Survey of Great Britain for much of Northern England and the Midlands, a Technical Report on the geological background for planning and development in Leeds, W H Wilcockson's "Sections of Strata of the Coal Measures of Yorkshire", several books on valuation and rating, copies of Rating and Valuation Reporter, several Institute of Geological Sciences area reports, Transactions of the Federated Institution of Mining Engineers for 1893/4, HMSO publications on legal aspects of coal mining, a box of OS maps and several geology text books.

Thank you to Barbara Sutcliffe for North-East Lancashire Group of Geologists' Association Proceedings, Historic Cornish Mining Scenes Underground, the May 2011 copy of Down to Earth, the Annual Report of the Nova Scotia Department of Mines and Energy and several geology text books.

Sallie Bassham

Where do they go? Part 2

Here are a few more interesting places where our publications go

Colne Book Shop
22 Church
St Colne, BB8 0LG

A fairly new independent bookshop with the owners having over 30 years of experience in the trade between them. Comfy sofas and newspapers encourage browsing. It also has a very good reputation in the area for sourcing and ordering books, often for next day delivery. Phone 01282 614615. More details on:-

www.bookshopcolne.co.uk

Embsay Station Book Shop

At one end of the Embsay & Bolton Abbey Steam Railway the gift/book shop is open during summer (June-September), and daily except Mondays at other times. Mail order is available on 01756 794727 or e-mail emsaystation@gmail.com Further details can be found on www.embsayboltonabbeyrailway.org.uk

Keswick Mining Museum
Otley House, Otley Road
Keswick, CA12 5LE

Run by Ian Tyler, it was the first mining museum to be established in Cumbria and hosts a very large collection of mining memorabilia. The bookshop has an impressive array of both new and second-hand books. Regular walks of mining interest are also organised. Details of these can be found on their website www.keswickminingmuseum.co.uk

Queen Street Mill Textile Museum
Harle Skye
Burnley BB10 2HX

The world's last 19th Century steam powered weaving mill and also featured in the film "The King's Speech". May to September opening times (12-5pm) are Tuesday, Wednesday, Thursday, Friday and Saturday with the engine in steam on Saturdays. Besides the small shop there is also a small cafe.

Swaledale Museum
The Green
Reeth, DL11 6QT

This museum opens Easter to the end of October apart from Saturdays and has over 2000 objects connected with living and working in the Dales, with many of them linked to lead mining. There is also a small cafe. More details can be found on the website www.swaledalemuseum.org

Killhope

The North of England Lead Mining Museum
Nr Cowhill, Upper Weardale
Co. Durham DL13 1AH

This a multi award winning museum exploring the life of North Pennine Victorian lead mining families. Equipped with hard hats and cap lamps, visitors can be guided down the mine to discover the working conditions of Victorian miners. On the Surface they can see how miners lived. Woodland walks offer an opportunity to see red squirrels. Beside a visitor's centre there is also a cafe. There is also a permanent display of Spar boxes. Open April 1st –October 31st from 10.30 – 17.00. Phone 01388 537505. Web www.kilhope.org.uk

Yorkshire Dales Mining Museum
Old Grammar School
School Lane
Earsby, BB18 6QF

This museum houses one of the most extensive collection of lead mining artefacts in the North of England and is open Wednesday, Saturday, Sunday 11.00am - 5pm plus Bank Holidays. More details are on www.yorkshiredalesminingmuseum.com

Barbara Sutcliffe

Book Review

Cornish Mines: Gwennap to the Tamar, by Barry Gamble, published by Alison Hodge 2011, 111pp lots of colour illustrations, £5.95

Cornish Mines: St Just to Redruth, by Barry Gamble, published by Alison Hodge 2011, 103pp lots of colour illustrations, £5.95

The Geology & Landscape of Cornwall & the Isles of Scilly, by Simon Camm, published by Alison Hodge 2011, 120pp lots of colour illustrations £5.95

These are three more books in the Pocket Cornwall Series, all written by knowledgeable people in their field. The two mining ones are a recent record of many of the county's best surviving mining sites, photographed in the last few years and with authoritative text. Within the two books are over 100 tin and copper mine sites with their engine houses and dressing floors. Pocket size books obviously reduce the size of photos but in my opinion do not detract from the content. Notes are given on the history of each mine and another plus is that grid references are given. The third Pocket books describes and explains

the best geological sites in Cornwall and gives a gallery of rock types that can be encountered in Cornwall. Again the numerous colour photos are small but of very good quality. Twelve selected geological exposures are dealt with from the Isles of Scilly to Bodmin Moor together with an index and location of sites. Again, very useful grid references have been given. I have a few of these books available should anyone be interested

Barbara Sutcliffe
mansemis@btopenworld.com

Force Crag Mine



Force Crag Mine, near Keswick, was worked for zinc, lead and barites from 1835 until 1991 and was famously the last working mine in the Lake District.

The mine is a major source of heavy metal pollution in the Coledale Beck, a tributary of the Newlands Beck and the River Derwent & Bassenthwaite Lake SAC and SSSI. There are two mine-water discharges from the mine, as well as diffuse pollution from waste heaps and an old tailings lagoon. This results in high levels of metals, notably zinc, cadmium, lead and copper entering the stream causing pollution and a failure to meet Water Framework Directive Good Ecological status.

The site is now owned by the National Trust and is operated as a visitor attraction. It is within the Lake District High Fells SAC; and within two SSSI's; Force Crag Mine itself and Buttermere High Fells. It is also a Scheduled Ancient Monument.

In 2008 we commissioned Entec to investigate options and to make recommendations for managing the polluting discharges to minimise their impact on the catchment, which would not compromise the archaeological or ecological value of the site. The report concluded that:-

A) Coledale Beck and Newlands Beck both fail their environmental quality standards (EQS) for zinc and cadmium. Immediately downstream of the mine the zinc and cadmium concentrations are up to 140 and

65 times the standard retrospectively. Five kilometres downstream the mine in Newlands Beck, zinc is seven times the EQS and cadmium four times.

B) Force Crag contributes up to 70% of the total metal load in Newlands Beck. Most of the time the main minewater discharge contributes up to 90% of the sites metal load. However in high flow conditions a significant proportion of metals are derived from diffuse sources such as the settlement lagoon and mine waste heaps.

C) The report recommended trialing a pilot scale treatment plant.

D) Diffuse sources of pollution generated by mine spoil could be addressed by diverting clean surface water away from contaminated areas and capturing run-off from waste spoil heaps.

In April 2011 a pilot mine water treatment plant was constructed in partnership with National Trust, Coal Authority and Newcastle University. The plant is the first in the England to trial HFO (Hydrous Ferric Oxide – Iron ochre) treatment technology to remove heavy metals from solution at abandoned mine sites. The plant consists of two small tanks containing high surface area media coated in iron ochre.

The mine water flows over the media and metals are adsorbed onto the ochre thereby removing them from solution. The trial will last for 12 months. The results of the trial will help the partners decide on the long term solution for the site. We have also commissioned a study of the economic benefits of mine water treatment. This study concluded that if the impacts of minewaters on the River Derwent were removed there would be a benefit of £7m over 25 years. A failure to deal with the impacts could lead to a deterioration with a cost of £4m over the same period.

The mine also has another problem. One of the main drainage tunnels is blocked with a 20 metre head of water building up behind the blockage. This could result in a catastrophic 'blow-out' of contaminated water into a sensitive catchment therefore we are working with the National Trust to investigate methods of relieving the pressure below the blockage to allow the mine water to discharge safely.

Impact of the mine water discharge

Length of the watercourse	5km
Average metal concentration	
	Zinc 3.1mg/l
	Cadmium 17ug/l
Average flow	15 l/sec
Load of zinc discharged	up to 3 tonnes pa

Benefits of remediation

- 1) Bassenthwaite Lake will be protected from a major pollution source
- 2) We are using compelling evidence to drive our decisions
- 3) We are developing partnerships with important stakeholders and using our position as an influential advisor to deliver shared environmental outcomes
- 4) Contribute towards WFD Good Ecological status compliance in the affected water-bodies
- 5) Three tonnes of zinc would be prevented from entering Bassenthwaite Lake every year
- 6) The economic health of the Lake District would be improved and protected
- 7) The works will act as a catalyst to resolve other metal mine pollution issues in the Catchment

In May 2011 DEFRA allocated £10.5m for the Environment Agency to deal with abandoned metal mines in partnership with the Coal Authority for the WFD in 2011-2015. A significant portion of this money has been allocated to delivering a full scale treatment plant on the site. Work began on this project in June 2011.

**For more information on the
Force Crag Mine
contact:-**

johnss1.penrith1.nw@environment-agency.gov.uk

Stephen Johnston

Photo Heritage a new archive

Ken Howarth, founder of the North West Sound Archive, & a qualified museum curator, has recently set up a new website with over 40 years worth of images of Lancashire, Cumbria and North Wales. Ken's collection contains numerous hitherto unseen photos taken during his career. These include industrial archaeology - mining, textiles, steam engines and quarrying. Ken commented "The images were sitting there in my filing cabinet so I decided to make them available on the internet. It is very much a 'work in progress' I am constantly adding images, and still actively recording industrial heritage. The Archive website will contain many 1000s of images as the work continues." Ken has indexed the site and it is fully searchable to library and museum standards.

Mining and Quarrying

Ken added, "I have been involved in many mining and quarrying related projects over the years recently in the Valley of Stone initiative in Rossendale and an oral history project with coalminers in the Wrexham coalfield for the Welsh Assembly Government. I am now looking at South Cumbria and finding a great deal of physical evidence that seems not yet been photographed in detail."

You Tube

A spin-off from Ken's work has been the creation of **kenhowarth2** on You Tube. Ken's Gallery contains over 40 video and digital interpretive presentations including Manchester Underground, canals, waterwheels, steam engines and coalmining.

Guest Images

Ken is looking for 'Guest Images' for his website. The idea is to give other heritage photographers a chance to showcase new subjects and reciprocate with site links to promote awareness of industrial heritage generally. All Rights will be protected.

Ken commented "One idea is to make the site open to all with important heritage images, there must be more people out there like me who keep looking at their photos and wondering what to do with them and don't want to risk them being copied or abused on the Internet." If you are interested in Ken's proposals he can be contacted via his website:-

www.heritagephotoarchive.co.uk

Ken Howarth



**West
Pastures
Mine**

The happy man is Peter Riley who led a party of seven NMRS members to an underground trip for a couple of hours after, our visit to Rogerley Mine.

There'll be more on this story and what a great day we all had in the November issue of the NMRS Newsletter.

David R Neal

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Ingleton Overground Underground Festival

.....Ingleton Coalfield photo Exhibition

On the 28-29th May the above event was held at an excellent venue: The Scout Hut, Mealbank Quarry, Ingleton. Five display boards, showing photographs covering mainly Wilson Wood Colliery and New England Colliery, with a further wide selection of dated local photographs completed the mining connection.

An Elliott hand-drill, truck wheels and track and a 1870 Coking shovel with local picks covered the artefact's section.



*Coal field artefacts
Scout Hut
Mealbank Quarry, Ingleton*

John Bentley, the keystone to NMRS BM76 attended both days giving much valued information to a large number of local viewers. Many requests came for any information on their past fathers and grandfathers that had worked in the known mines. A complete bonus happened on the Sunday when Mr Andy Ives, Burton in Lonsdale, donated to the artefact section, further portions of an Elliott Boring Machine, Sheffield, this

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being found in his previous home in The New Village, Ingleton (100 properties built in 1915 for the incoming miners). Mr Ratcliffe Rowe, a miner being the last owner. A big thank you to Mr and Mrs Ives.

Creating a beginning to the display, Mr Alan King of Settle used a splendid dated wooden case, containing coal fossils 300 million years old. These coming from his underground visits with his father who was a coal miner working at the Gressford Coal Mine (near Wrexham) before the mine disaster.

In NMRS BM76 page 35, Mr Dennis Cairns, Barnoldswick came along on the Saturday and provided much information on William Bracewell (Iron and Brass Foundry, Burnley) and his needs for coal with the purchase of Wilson Wood Colliery in July 1872.



*(L- R) Bernard Bond with
Dennis Cairn and John Bentley
28th May, 2011*

With an attendance count of 178 plus two dogs, a further thank you to NMRS members for their help over the two days, notably Sallie Bassham and Norma Dray.

Also in attendance were Rex Cook, Ken Makin and Arthur Baldwin.

Bernie Bond

Data Protection Act

Members are reminded that the NMRS maintains a list of their names and addresses solely for the purposes of printing labels for Membership Cards and posting newsletters and publications.

Such details are deleted from the database for any member who leaves the Society, either after the committee have been notified, or after it has been determined that an overdue subscription has not been paid for several months.

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