NAMHO National Association of Mining History Organisations

Newsletter No. 94, March 2021

NAMHO Conference 2021

"60 Years of Mining Projects" 60 Years of Mining Projects

Hosted by the Shropshire Caving and Mining Club, Friday 2nd July to Monday 5th July.

Latest Update:

The UK Government road map for release from Covid lockdown permits some confidence that the South Shropshire conference will take place as planned on the first weekend of July, although it is too early to determine its exact form. The conference website https://www.namho.org/conf2021/confpages/conf_home.php is now live, giving general information concerning what is intended. However, it is not yet possible to initiate the booking system. An announcement will be made once this is in place.

Andy Wood/Alan Robinson SCMC

The venue for the 2021 NAMHO conference will be the village hall at Norbury in South Shropshire (see https://www.villagehallnorbury.co.uk/ Location SY9 5EA).

This has been chosen to provide the flexibility required to run the conference whatever restrictions may be in place in July.

There is no accommodation facility at the hall but South Shropshire is well served by holiday lets of all types, B&Bs, pubs with rooms and there are several nearby bunk houses and campsites, some with pods or huts, with space for tents, caravans and motorhomes. It is planned to have the basic conference website on line very soon with more detailed information. Contact NAMHO.21@shropshirecmc.org.uk

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Contributions: Email the Newsletter Editor- editor@namho.org
Or by post-
NAMHO Editor, c/o Peak District Mining Museum, The Pavilion, Matlock Bath, Derbyshire, DE4 3NR

Acknowledgements

I would like to convey my appreciation to all those that have contributed towards this edition and past editions of the NAMHO Newsletters during my 10 years as Editor.

Items are credited to the contributor, unless written/supplied by myself as Editor.

Roy Meldrum, NAMHO Editor

News from around the NAMHO Groups and Museum Members

Cumbria Amenity Trust Mining History Society
Force Crag Mine, Keswick

Since 2019, CATMHS have been involved in the updating of the Management Plan for the mine and the Coledale Valley which the National Trust as landowner implemented. The production of the plan has been carried out by Archaeo-Environment Ltd and has also involved several organisations such as Historic England, Natural England, Coal Authority (they manage the treatment plant), Environment Agency and the Lake District National Park Authority.

The draft report was sent out for consultation last summer and is due for publication shortly.

Greenside Mine, Glenridding

The Lake District National Park Authority who owns the mine have managed to secure funding from the Covid-19 Heritage at Risk Fund to produce a Management Plan for Greenside which will allow for funding streams to be sought to carry out conservation work to the remains, ecological work, potential natural flood mitigation measures, etc.

They have appointed Archaeo-Environment Ltd who have previously produced management plans at Force Crag Mine, Coniston Coppermines, Penny Rigg Copper Mill and Carrock Mine. Several organisations will be consulted as at Force Crag Mine but will also include local organisations such as Patterdale Parish Council.

The deadline for the completion of the plan is September 2020 which is tight in normal times without the handicap of Covid restrictions. CATMHS will be heavily involved in producing the plan.

Warren Allison,
Chair of CATMHS

Somerset Coalfield Life at Radstock Museum- Information Boards

The idea of having some information boards in Radstock, for local people and tourists to learn a little more about the heritage of the town, originally came from the Radstock Residents' Association.

After a 2 year programme co-ordinated by Diane Abbott, Office and Communications Manager at Radstock Town Council, and involving Dr Nick Hall and Lucy Tudor from the Museum, graphic designer Justin Folker, and artist Jane Randfield, the design of the 2 boards was finalised.

The boards are now installed in the town and already many people have been seen stopping to look at them during their daily lockdown walks. One is sited in the Miner's Memorial Garden outside the Museum and the other in the flower bed opposite Radstock Town Council Hub.

The boards feature the history of twelve locations in total, six on the northern half of the town feature on the board in the Miners' Memorial Garden and the six on the southern side of the town feature on the board opposite The Hub; that way each point of interest is either visible from standing by the board or is only a short walking distance away from it.

For example, Victoria Hall is visible from the board opposite the Hub, and Snails Brook, an outside swimming pool used by miners, is not visible but is behind St Nicholas' Church just a short walk from the board.

A map in the centre of each board, surrounded by the old photos telling the stories of the 6 items, helps the public to find their locations. The three-dimensional, illustrated maps were specially drawn by local artist Jane Randfield.

Somerset coalfield Life at Radstock Museum.
News Update February 2021

Database of Databases in Mining History

The European Labour History Network's Working Group 'Labour in Mining' made a call for contributions to a Database of Databases relating to mining history in early February 2021. Topics have to be related to mining history (all periods) or history of labour, environment, heritage, politics, culture etc with information related to mining issues.

The database is now available for contributions, with an update by country available here

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An Enquiry about Drilling, Can Anyone Help?

I'm currently working on Season 6 of a global documentary show called Impossible Engineering by Twofour Broadcast. The show goes out to 120 different territories worldwide and premieres on Discovery Channel in the US.

The reason for my email is I am looking for an expert or engineer who could inform me about historical examples of drills in the UK. The latest episode in our show will feature a Mars Rover developed by the European Space Agency, due to be launched in 2022. The episode will focus in on the rover as a marvel of modern day engineering, but we will also be featuring some historic engineering which may have influenced the modern design. As such, we are featuring a story about its ability to drill 2 metres into the Martian surface using an extendable core drill. We're looking into historical examples of core and extendable drills and I thought speaking to an expert at the National Association of Mining History Organisation would help point us in the right direction of finding historical examples of drills based in the UK, with the possibility of featuring them in the show too.

Would you be able to help? It would be fantastic to speak to an engineer or expert and hear about any examples you can think of. If you'd like more details and to discuss the show further, you can reach me on 07904955616. I look forward to hearing from you.

Tom Forte, Researcher | Impossible Engineering
Currently Working From Home
Tom.Forte(at)twofour.co.uk
Mob: 07904955616
TWOFOUR Broadcast Ltd

Mining and Heritage News

England

Green Steel

The Woodhouse coal mine proposes to extract metallurgical grade coal from the extensive deposits under the sea off West Cumbria. This class of coal is listed by the European Commission as a critical material on the grounds that it is essential for steelmaking. Planning approval for the mine was granted by Cumbria County Council (CCC) and, despite protests by green campaigners, Government refused to intervene. But now it seems that CCC is reconsidering its decision and it is possible that the decision might be withdrawn.

To produce high quality steel, metallurgical grade coal is first made into coke which is fired together with iron ore and limestone in a blast furnace to produce pig iron and two waste products: slag and carbon dioxide. Next, in a separate process, the pig iron is refined into virgin steel. The associated carbon dioxide emissions are significant: it is estimated that around 8% of world emissions come from steelmaking. Emissions can be reduced if, instead, scrap steel is melted in an electric arc furnace - the extent of the reduction depending on how the electricity is made. The difficulty here is that the product is usually inferior to virgin steel because the scrap will have often included small amounts of other metals that are deleterious to the steel's properties. In practice, steelmakers often mix and match virgin steel and scrap to bring the steel within specification.

Climate change considerations have led EU members to agree emission reduction and this has been backed up by a tax on carbon that eats into the profits of big emitters such as steelmakers; as a result, some European steel producers have moved their production offshore. Three big players in Sweden have decided to take a different route however: SSAB, a steelmaker, LKAB, a state iron-ore producer, and Vattenfall, a state-owned power company have established HYBRIT a joint venture that aims to produce steel minus the big carbon footprint. Electricity generation in Sweden is, already, almost carbon free and this will be used to produce hydrogen which can turn iron ore into iron. Steel can then be made with an electric arc furnace. SSAB aims to produce over one million tonnes per year by 2026 which is around half of the current blast furnace production at its Lulea plant. After that, the plan is to expand to commercial scale, converting its blast furnaces to electric arc so that by 2045, all SSAB steel production will be "fossil free". Steel produced by this method will be more expensive than conventional steel but SSAB maintains that customers will be willing to pay a premium for its green status.

World steel production is dominated by China which claimed over 50% in 2019; no other country came even close. The EU is ranked second with 8% while Sweden comes in at 0.3%. Other European steel producers also have plans for reducing their emissions but what becomes clear is that green steelmaking will have to be hugely expanded, especially beyond Europe, to make even the smallest dent in worldwide emissions. Whoever drives the expansion, the sector will probably need some form of economic protection e.g. subsidies, carbon taxes etc.

Returning to the Woodhouse mine, a good case can be made for allowing it to continue so long as metallurgical grade coal is classed as a critical mineral but, if green steelmaking succeeds, that status will not last forever. As for when this might happen, a partial answer may be gleaned from the UK's commitment to reduce its carbon dioxide emissions to 10% of 1990 levels by 2050. If, by then, UK steelmaking has been decarbonized and if imports are restricted to green steel, it would seem reasonable to declare that production of metallurgical grade coal is no longer needed and should cease. It would be unusual for a business case to assume that the initial investment was recouped in more than ten years so perhaps there is room for a compromise that allows mining to go ahead while restricting the period of operation to, say, a minimum of 20 years with periodic reviews thereafter. This would make use of a scarce resource while it is still in demand, allow much-needed local regeneration and, at the same time, respect climate targets.

Ian Crossland, GSS

Plans for Cornish Geothermal Rum Distillery

Plans for a £10m rum distillery to be built on a disused tin mine site have been thrown into doubt as Historic England raise concerns over its environmental impact.

The Cornish Geothermal Distillery Company want to construct a biome at United Downs near Redruth and harness the excess energy from the nearby geothermal plant being developed by the United Downs

Geothermal Project. Historic England believe that the development would harm the Outstanding Universal Value of the Cornwall and West Devon Mining Landscape World Heritage Site. The current leaseholders of the site use it for stock car racing. (29/01/2021)
https://inews.co.uk/news/business/cornwall-rum-tin-mine-cornish-geothermal-distillery-company-united-downs-850224

Scotland

Cononish Mine, Tyndrum, Perthshire

The Cononish Ramp Up Progress and Exploration Update issued by Scotgold Resources on 29 January reported teething problems with crusher circuit chokes, flotation circuit pumps and filter press controls in the Mill. In relation to crushing the Update says: "The nature of the Cononish ore ... is such that it frequently breaks into thin flat 'slabs' and at various points in the circuit where there are 'pinch point' in chutes etc., these slabs are prone to bridging and creating blockages".

These problems have largely been sorted, and remaining restrictions on throughput are expected to be fixed by the end of February 2021. Richard Gray, Chief Executive Officer, said "Despite the frustrating but resolvable materials handling issues that arose this month, our confidence in the ultimate performance of the mine continues to grow. The lessons learnt, as well as opportunities identified, during this Phase 1 ramp up will be used to optimise our plans for the Phase 2 expansion in 2022".
https://www.scotgoldresources.com/investors/aim-news-releases/

Alastair Lings

Ireland

The following mining news from Ireland has been provided by Alastair Lings.

Avoca Mines, Co. Wicklow

On 09 December 2020 IMC Exploration outlined the findings of their excavation work:

"After a series of trial pits excavated across the Ballymurtagh spoil heaps in West Avoca, potential additional tonnage has been discovered as depths of spoil were greater than had previously been estimated. One sample taken vertically across a metre interval within a spoil heap returned grades of 1.14 g/t Au and 0.27% Cu. This reinforces the potential for significantly elevated gold grades to occur within the spoil heaps. In addition to the spoil heap tonnage, other trial pits also discovered a larger area of mine tailings contained within the north lode pit than had previously been calculated. These tailings also contain significant grades of gold and copper".

IMC will commission studies to update their West Avoca Exploration Target.
https://www.imcexploration.com/announcements

Gortdrum Mine, Donohill, Co. Tipperary

On 04 December 2020 the Department of the Environment, Climate and Communications approved the drilling of a single borehole in the eastern part of Prospecting Licence PL4498, which surrounds the former Gortdrum Mine. On 28 January Group Eleven Resources announced that "two short holes (totalling 375 metres) have recently been drilled along a major fault which extends for 3-kilometres beyond the historic Gortdrum mine". The open-pit mine produced copper, silver and mercury in the period 1967-1975.
https://www.groupelevenresources.com/news/news/2021/

Wales

Clogau-St. David's Gold Mine Update

Alba Mineral Resources Plc have recently posted an update on the latest surface activities at the mine with regards to the Phase 1 surface drilling programme. They have also posted an update on the Dolgellau Gold Exploration Project. The updates can be viewed here

'Burst Mineshaft' causes flooding

Eighty people were evacuated from the village of Skewen, Neath Port Talbot, on 21st January 2021, due to flooding following a prolonged period of rain and Storm Chrisoph. The area affected is classed as a 'development high risk area' because of past shallow mine coal workings by the Coal Authority.

Investigation by the Coal Authority has identified a blockage in an old drainage adit. Remediation work will concentrate on the adit and mineshaft, as well as construction of a mine water management system to capture the water coming down from the mines above Skewen.
https://www.gov.uk/government/publications/policy-on-skewen-flooding-response-support/policy-on-skewen-flooding-response-support-31-january-2021

https://www.walesonline.co.uk/news/wales-news/flooding-skewen-mine-water-evacuation-19677468

Further Afield

Tailings Dam Failures

Just over two years ago (25 January 2019), the collapse of the tailings dam at the Brumadinho iron ore mine in the State of Minas Gerais, Brazil killed 270 people and polluted a large area of land downstream. Even more shocking thing was that this was the third such catastrophe within five years: the first at Mount Polley, British Columbia in 2014 and the second at Mariana, Brazil (Nov 2015); this last killed 19 people when two villages, 25 miles downstream from the dam, were inundated and is said to be Brazil's worst ever environmental disaster. Tailings dams are used to contain the crushed waste rock that remains after the valuable minerals have been extracted from the ore. Where the topography is suitable, an impoundment will usually be formed by building an earth/ rock dam across a valley. Where the ground is flat, the dam will encircle the waste. Such facilities will normally hold millions of tonnes of waste rock.

Vale SA, a Brazilian multinational mining company was part owner (with BHP) of the Mariana mine and outright owner of Brumadinho. The reaction of the Brazilian government was to immediately withdraw Vale's licence to operate all its tailings dams – effectively closing down its operations – and to freeze US$2 billion of its assets. Its share price fell by 25% and Moody's, the rating agency, downgraded its stock to junk. Since then, improvements have been made but, even so, as at October 2020, there were 45 tailings dams that are banned from operating because of structural problems. Of the total, 33 belong to Vale and most are in Minas Gerais State.

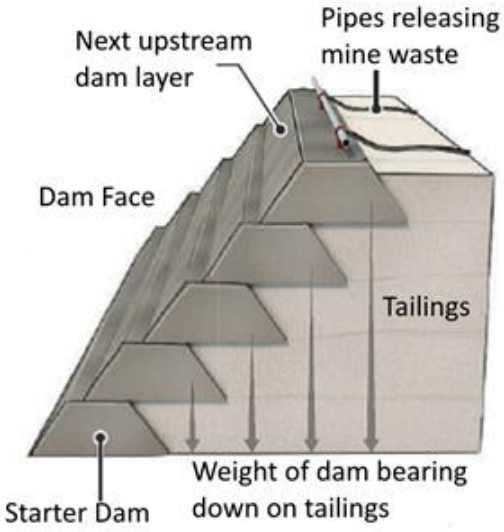
If being punished on by the government and the regulator was not bad enough, ethical investors including the Swedish National Pensions Fund (via its Council on Ethics) and the Church of England Pensions Board have pressed Vale and other mine operators worldwide to assess the risks for the dams they operate. Vale's battle also continues in the courts where, by reversing a previous order, it obtained permission to resume operations at its Viga plant, which produces 11,000 tonnes per day of iron ore concentrates. Moody's subsequently upgraded the company to its lowest investment grade, saying that this "reflects the improvements observed in Vale's ESG [environmental, social and corporate governance] practices, which has … materially reduced the risk of a similar accident in the future."

Unfortunately, confidence in this statement is undermined by the observation that the Brumadinho dam had recently passed a safety inspection and, even more so, by the statistics which tell us that failures of such dams are over one hundred times more frequent than those of water dams. With thousands of these impoundments scattered throughout the world – some of them huge – it would seem that another disaster cannot be ruled out.

According to an article published last year in the American journal "Science", there is a fundamental flaw in the design of many of these facilities. Unlike a water dam, which will usually be made from concrete and fully established prior to service, a tailings dam will normally be built with loose rock mixed with tailings and will be raised in height as the tailings accumulate in volume. The most common (and cheapest) type is known as an "upstream" dam where each new layer is placed partly on the existing dam and partly on the tailings themselves so that, very soon,
the tailings form the foundation for the dam (see diagram). This makes it clear that the integrity of the dam depends on the ability of the tailings to carry its weight. Any weakness in the tailings - or the geology that underlies them - could be disastrous. The waste is pumped to the impoundment as a slurry and, in theory, the solids settle and the water is drained away to leave a relatively dry, compact mass. In reality, imperfect drainage or an unexpected influx of water could leave the deposit in a near-saturated state. This increases the pressure on the dam and, if there is an earth tremor or other sudden disturbance, allows the possibility of liquefaction of the tailings and dam failure. This, it seems, is what happened at Brumadinho.

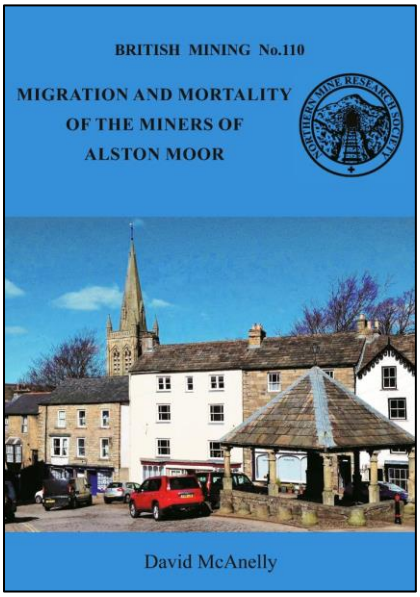
Many countries now outlaw the construction of new upstream dams but what to do about the thousands that already exist throughout the world is an open question. For the moment, the main response appears to be more frequent and more detailed monitoring. Whether that will be good enough remains to be seen.

Ian Crossland, GSS



"Upstream" tailings dam showing how the tailings form the foundation of the dam (acknowledgements to the journal "Science" 25 Dec 2020).

Publications



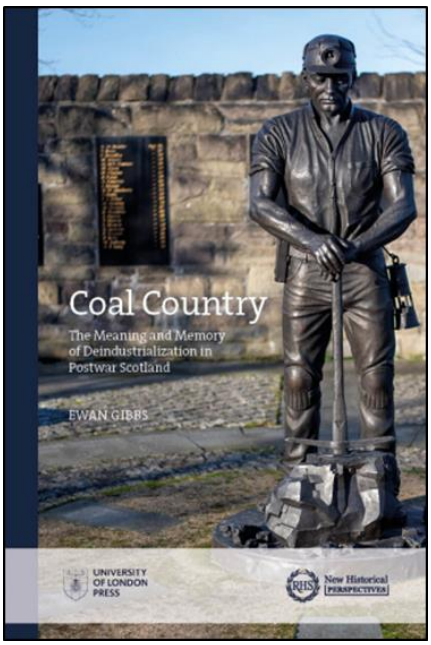
British Mining No.110, Migration and Mortality of the Miners of Alston Moor
David McAnelly, Northern Mines Research Society, paperback, A5, 13 illustrations, 43 data tables and a comprehensive index, 108 pages, ISSN: 0308 2199

The influence of political conditions on the price of lead and its effect on the profitability of the mines of Alston Moor is traced through the 19th century. Foreign competition and declining lead reserves resulted in the mines demise and subsequent migration of the population to other mining areas and also abroad. In many instances miners left to become coal miners – an occupation which medical opinion, at the time regarded as more healthy and certainly better paid, albeit more dangerous.

The housing and living conditions of the miners were better than those of much of the population of the UK at the time, although life expectancy was shortened by pulmonary illnesses. The medical understanding of occupational illnesses developed throughout the course of the 19th century as did the understanding of the causes of the diseases. Much of this was the work of the 1864 Royal Commission and similar official investigations, described in detail here. In the late 19th century the introduction of new technology in the form of rock drills and high explosives boosted productivity and dramatically increased the incidence of silicosis.

The monograph concludes with a discussion of the relative effects of other risk factors such as accidents, lead and zinc poisoning and speculates on the importance of radon exposure in the northern mines.

Publisher's synopsis



'Coal Country. The Meaning and Memory of Deindustrialization in Postwar Scotland'
Ewan Gibbs, University of London Press, 156×234 mm, 132 pages,
Formats:

Paperback: 978-1-912702-55-8, £25.00
Hardback: 978-1-912702-54-1, £40.00
PDF: 978-1-912702-58-9, Free

The flooding and subsequent closure of Scotland's last deep coal mine in 2002 brought a centuries long saga to an end. Villages and towns across the densely populated Central Belt owe their existence to coal mining's expansion during the nineteenth century and its maturation in the twentieth. Colliery closures and job losses were not just experienced in economic terms: they had profound implications for what it meant to be a worker, a Scot and a resident of an industrial settlement. *Coal Country* presents the first book-length account of deindustrialization in the Scottish coalfields. It draws on archival research using records from UK government, the nationalized coal industry and trade unions, as well as the words and memories of former miners, their wives and children that were collected in an extensive oral history project. Deindustrialization progressed as a slow but powerful march across the second half of the twentieth century. In this book, big changes in cultural identities are explained as the outcome of long-term economic developments. The oral testimonies bring to life transformations in gender relations and distinct generational workplaces experiences. This book argues that major alterations to the politics of class and nationhood have their origins in deindustrialization. The adverse effects of UK government policy, and centralization in the nationalized coal industry, encouraged miners and their trade union to voice their grievances in the language of Scottish national sovereignty. These efforts established a distinctive Scottish national coalfield community and laid the foundations for a devolved Scottish Parliament. *Coal Country* explains the deep roots of economic changes and their political reverberations, which continue to be felt as we debate another major change in energy sources during the 2020s.

Contents:
Introduction: *Those who walked in darkest valleys*
Chapter 1 'Buried treasure': industrial development in the Scottish coalfields, c.1940s–1980s
Chapter 2 Moral economy: custom and social obligation in colliery closures
Chapter 3 Communities: 'it was pretty good' in reconstructed locales
Chapter 4 Gendered experiences
Chapter 5 Generational perspectives
Chapter 6 Coalfield politics and nationhood
Chapter 7 Synthesis: 'the full burden of national conscience': class, nation and deindustrialization
Conclusion: The meaning and memory of deindustrialization
Appendix: Interviewee biographies
Bibliography

Publisher's synopsis

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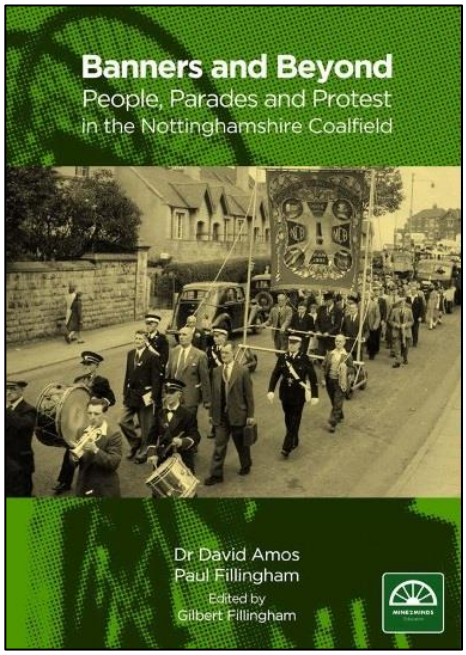


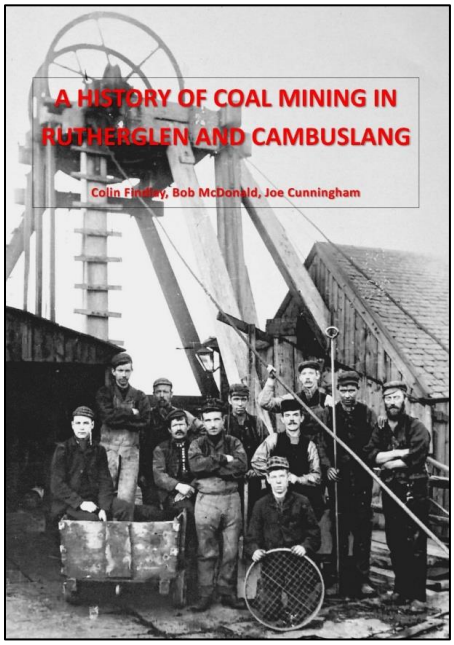
Banners and Beyond
Dr David Amos and Paul Fillingham, Thinkamigo Editions, paperback, A5, 24 pages, illustrated with colour and b&w photographs, £2.50 including free p&p, ISBN 9-781838354602

A new booklet *'Banners and Beyond – People, Parades and Protest in the Nottinghamshire Coalfield* ' produced with the support of the Nottinghamshire Community Foundation, considers how Notts' mining communities found expression in the slogans and iconography of mining union banners.
Featuring images of banners being paraded at Notts' galas, public events, in protest and celebration, the publication considers how this art-form is being used in the post-industrial age, as we embrace green energy and renewables.

Supported by Nottinghamshire Community Foundation, Heritage Lottery and Nottinghamshire County Council, the project also includes

downloadable banner-making worksheets for schools and parents engaged in home learning due to the COVID pandemic.

To purchase click here



A History of Coal Mining in Rutherglen and Cambuslang

Colin Findlay, Bob McDonald and Joe Cunningham, South Lanarkshire Council printing department.
A4, 199 pages, perfect bound, in colour, with photos, maps, references.

This book is the result of collating research undertaken by the co-authors on coal mining in the Rutherglen and Cambuslang areas. This joint co-operation came because of a Heritage Lottery project undertaken by South Lanarkshire Council between 2014 and 2017, named Pits Ponies People and Stories.
Although there was much written evidence of the social and working conditions of the local mining community over the centuries, evidence of the science and art of winning the coal was not so readily available.

The purpose of this book is, therefore, to record facts and references that have since been discovered for any future researchers on the coal mining industry, which once played a major role in the development of the area.
The book will be provided free of charge to schools, libraries, museums, and groups with an interest in local history. Due to a short print-run it is not available for sale.

Publication due later this year

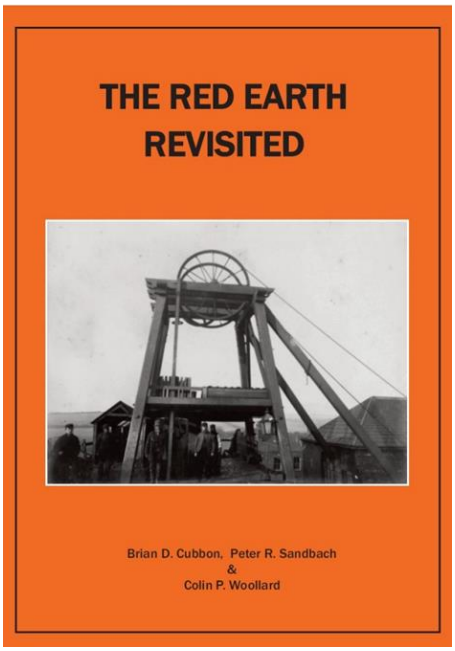
The Red Earth Revisited

During the Covid-19 pandemic three members of the Society have been working on "The Red Earth revisited", which the Society has agreed to publish later this year,

This book considers the iron mining industry of Furness. It describes the mines, owners, management, employment, and production of iron ore in this area. Richly illustrated with photographs and updated maps it provides an insight into the iron industry of this bygone era. Today, there are few traces of this once thriving industry which gave employment to many of our forefathers who mined Haematite, a particularly rich form or iron ore found in this part of what was once North Lancashire.

This book complements "The Red Earth" by David Kelly; written some twenty years ago and now out of print. The three authors, who are members of the Cumbria Amenity Trust Mining History Society, have extended David's first research to provide an in-depth review of nearly three hundred pages that brings to life the ways in which iron was mined and produced.

Warren Allison,
Chair of CATMHS



FORTHCOMING EVENTS

20th March 2021: NAMHO AGM and Council Meeting, to held on-line using Zoom. Full details will be curculated to NAMHO representatives

13th-16th May 2021: Institute Europa Subterranea Symposium, Neukirchen-Balbini, Germany. http://europa-subterranea.eu/

9th-12th June 2021: Mining History Association Annual Conference (online), Nevada, USA. https://www.mininghistoryassociation.org/index.htm

2nd-5th July 2021: NAMHO Conference 2021, Shropshire. Details to be confirmed.

27th September-3rd October: Australasian Mining History Association Conference, Burra, South Australia. https://www.mininghistory.asn.au/

Friends of St. Aidens Walking Dragline Open Days, Leeds, Yorkshire
Open Days are provisionally planned for Saturday 17th April, Saturday 12th June, and Saturday and Sunday 11th -12th September.
http://www.walkingdragline.org/

Please check with organisers of meetings before making any travel bookings in case of change of dates or arrangements. NAMHO lists events in good faith but is not responsible for errors or changes made.