NAMHO National Association of Mining History Organisations

Newsletter No. 93, December 2020

NAMHO Conference 2021 Update

The Coronavirus crisis continues, but there are signs of optimism, and hopefully many of us may be vaccinated against the disease by the time NAMHO 2021 takes place.

The Shropshire Caving and Mining Club still intends to hold a Conference in South Shropshire (2nd to 5th July 2021), and some progress has been made in its planning.

Presently, it is still intended to carry out underground and surface field events, as well as a full talks programme, and they will obviously be conducted under whatever Covid-19 guidelines may be in place at the time. However we are having to look at a range of options on venue, so are unable to provide clearer details on that at present. It seems likely that individual delegates will have to sort out their own accommodation and catering arrangements, as these are most likely to be disrupted by Covid restrictions in terms of mass gatherings. Some provision for informal camping may be possible, but cannot be guaranteed at this stage.

SCMC have already sent out a flyer via the NAMHO Newsletter (NAMHO Newsletter No. 92, September 2020) requesting potential speakers who might attend the Conference. It is understandable that given the situation uptake has been slow. No one wants to make a decision so far ahead. However the rapid growth in video meetings and conferencing since lockdown provides us with an additional opportunity for this conference. We believe that we should have sufficient onsite facilities to allow us to both provide a virtual programme of lectures, as well as a real time live event (where numbers indoors may still be controlled). Further it will also be possible for speakers to provide an online presentation if they are not able to attend in person. This obviously provides international speakers with an opportunity too.

One aspect of planning the event is to know the approximate number of people who might attend so that equipment and human resources can be allocated to the different functions. It would help us immensely to have an estimate of how many might attend the Conference.

If you intend to come to the NAMHO Conference next year could you please contact the Conference organisers to register your interest. This will also allow us to e-mail you updates on trips, lectures and the overall programme as it becomes available.

Email: NAMHO.21@shropshirecmc.org.uk to register your intent to attend the NAMHO Conference next year.

Please also contact Rob Vernon directly if you intend to give a presentation via rbrtvernon@aol.com.

If you are shielding or have any concerns on the safety of the event then the virtual option will be available, but we would still like to hear from you.

Rob Vernon/Alan Robinson, SCMC

Acknowledgements

I would like to convey my appreciation to all those that have contributed towards this edition of the NAMHO Newsletter. Items are credited to the contributor, unless written/supplied by myself as Editor.

Roy Meldrum, NAMHO Editor

Copy Date for the next Newsletter is **10th February 2021** with publication due March 2021.

Contributions: Email the Newsletter Editor- editor@namho.org

Or by post-
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The Pavilion, Matlock Bath, Derbyshire, DE4 3NR

National Miners' Memorial Update

CHAPS is delighted with the progress being made with the National Miners' Memorial – artist Andy de Comyn is busy in his workshop creating the bronze plaques which will adorn the stone memorial to be installed at the National Memorial Arboretum, Alrewas, Staffordshire next year.

There are 22 plaques which will tell the story of the history of coal mining in the UK. The first plaque depicts a Victorian boy who is just leaving the mine after a long shift. Although only being about 13 or 14 years of age he has probably been working in the mine for about 6 years. Underfed and in ill-fitting clothes, he wouldn't have seen daylight for much of the year.

The plaques have been sponsored by individuals and groups – many of them within the Cannock Chase area – and they will each receive a plaster cast of 'their' plaque, painted bronze to replicate the original.

The memorial is to be built from Derbyshire stone; it will stand 2m high, be 5m long and 1m wide and will be in a magnificent spot at the Arboretum where visitors can fully appreciate every aspect of it.

If you would like to make a donation to the National Miners' Memorial, however small, find out more, or purchase a commemorative pin, do please contact: info@tchaseartsforpublicspaces.co.uk, or phone 07583 655199.

Donations can be made at www.justgiving.com/crowdfunding/chapsnationalminersmemorial

Or can be made by text, through DONATE:
To donate £5, text CHAPS to 70970; To donate £10, text CHAPS to 70191
and follow progress of the project on the group's Facebook page: www.facebook.com/ChaseArtsForPublicSpaces, or on twitter @miners_memorial

Artist Andy de Comyn working on plaque No. 1

National Bat Monitoring Programme Hibernation Survey for winter 2020/21 is suspended

At present the NBMP Hibernation Survey for winter 2020/21 is suspended in line with IUCN guidance on preventing human-to-bat transmission of SARS-CoV-2 (the virus that causes the disease COVID-19). We will update our position on this winter's surveys if IUCN guidance changes in time for monitoring to proceed. In the meantime we will not be making NBMP Hibernation Survey materials available and the online recording for this survey will be disabled.

The IUCN Bat Specialist Group (BSG) recommends that researchers prioritise activities that are essential to bat conservation, animal health or public health and consider options to delay, replace or reduce non-essential activities. The position of BCT and JNCC is that, while long-term bat monitoring is essential, a one year gap in monitoring will not have a major adverse impact on the production of long-term species population trends. Therefore the NBMP Hibernation Survey is not considered an essential activity in winter 2020/21. This will avoid the risk of human-to-bat transmission of SARS-CoV-2 through environmental exposure: sharing enclosed, poorly ventilated spaces with bats, where the virus may persist in the air or on surfaces.

For more information please see the relevant IUCN guidance at: https://www.iucnbsg.org/. Further guidance for bat groups will be available on the BCT website by the end of October.

We will keep you updated with any further developments which will also be posted here: https://www.bats.org.uk/our-work/national-bat-monitoring-programme/covid-19-advice-for-nbmp-volunteers/hibernation-survey-covid-19-guidance

Courtesy of John Hine, FoDCCAG

New Underground Observatory Open for Research

The UK Geoenergy Observatory in Glasgow had its virtual opening on 7th December 2020. The facility comprises 12 boreholes 16 to 199m deep and fitted with 319 state-of-the-art sensors. Data form the boreholes will enable scientists to better understand the subsurface and how warm water from abandoned mines could be used as a renewable energy resource.

A second observatory is planned for a site in Cheshire, between Ellesmere Port and Runcorn. Whilst the Cardiff Urban Geo Observatory is utilising a pre-installed network of boreholes, which were used to assess the impact of the Cardiff Bay Barrage scheme. https://www.ukgeos.ac.uk/

News from around the NAMHO Groups and Museum Members

Nenthead Mines transferred to Nenthead Mines Conservation Society

Cumbria County Council formally transferred the Nenthaed Mines, near Alston, to the volunteer-led charity, Nenthead Mines Conservation Society (NMCS). The society has acted as custodians of the nationally significant industrial heritage site for a number of years and will work alongside a number of partners and local groups to manage and maintain the site for the benefit of the local community and visitors.

Peter Jackson, chair of Nenthead Mines Conservation Society trustees, added: "Our members have put a great deal of time and resources into managing the Mines. We are proud to be taking over the responsibility for caring for this fabulous, historic site." in-cumbria news (18/11/2020)

Chatterley Whitfield Friends- A Year of Reflection

We started off 2020 on a high, building on the success of the Heritage Open Days in 2019, where we had just under 600 visitors coming to see the site and over 100 on the reserve list. This encouraged us to open up on the first Saturday of every month, using the Safe Route. Our last open day was in March 2020 then unfortunately Covid hit the headlines and like many other groups around the country, we closed down. We found due to the nature of the site, we could not safely allow visitor access so we reluctantly had to cancel the Saturday tours, group tours and the 2020 Heritage Open Days, which meant our friends and supporters could not explore the site. On the downside we lost out financially with new members joining and cash donations being given.

We started to notice activity on site by Urban Explorers so decided to form small working parties who could create a 'Bubble' and so the regular meetings on site every Thursday and Saturday resumed in the middle of June. Most of the work was outside with one team working on the Memorial Garden and another team doing site checks, repairing fences, checking buildings and improving security. The teams have worked well, recovering tubs from the site and incorporating them into a tub roadway which has been created. If you follow us on Facebook, you will see some of the results of our labour, especially in the Remembrance- Memorial garden.

We have also embraced technology and have regular Zoom meetings with the Committee, (including our recent AGM), our local Member of Parliament, Local Council Officers and Historic England. It is just a pity we cannot open the site YET!

We have some exciting things happening involving ITV and the BBC visiting. We have applied for grants and been successful with the applications. The grants have been for additional security at the Heritage Centre, proposed new roof and solar panels at the centre. Also at long last a grant to do some work on site, be it only £22,500 for roof stabilisation on the Pit Head Baths. So we can now look at bringing the Canteen area back into use, initially as an additional display and research area. We need to look for more grants. In addition to the grant money we eventually got permission to put a tree management plan in place. So we have a local college, Reaseheath coming on site with students removing trees - FREE OF CHARGE.

Nigel Bowers, Chair CWF

Some of the artefacts on display in the Heritage Centre

Mining and Heritage News

England

Anniversary of the Severn Bridge Disaster

October 25th 2020 saw the 60th anniversary of the accident that killed five men and ended the life of the Severn Railway Bridge, a massive structure more than three quarters of a mile in length and standing 70 feet above the River Severn at high water. Its main purpose was to connect Sharpness Dock with the Severn and Wye Railway which served the Forest of Dean mines. Prior to the bridge being built, coal and iron ore from the Forest mines had been offloaded at Lydney Harbour. But ships were getting bigger so that Lydney harbour became too small to accommodate them.

A direct route across the Severn to the larger dock at Sharpness seemed the obvious solution and had other potential advantages: first, by taking coal to Sharpness, ships docking there would not need to sail to Cardiff to refuel; second, by removing the need for trains to travel via Gloucester, it offered the tempting prospect of a shorter route between South Wales and London.

Constructed over four years by the Severn Bridge Company, the bridge and the connecting lines were completed in 1879. Immediately after, the company merged with the Severn and Wye Railway. It also took over the existing Midland Railway spur to Sharpness. It found itself to be a minnow sandwiched between two sharks: the Great Western Railway (GWR) on the west bank of the Severn and the Midland Railway on the east. Problems soon emerged. The coal trade, hit by recession and industrial action, was less than hoped for and the increased traffic to the east did not materialize – largely because it was in the interest of the GWR for it not to. On top of this the costs of construction had been enormous and, unable to pay the interest on its loans, the company found itself in administration.

With the Forest mines in decline and no hope of setting up a lucrative short cut to London, it was clear that it would never be able to pay off its debts and in 1884 it was sold at a knockdown price to its big-fish neighbours who ran it as a joint concern.

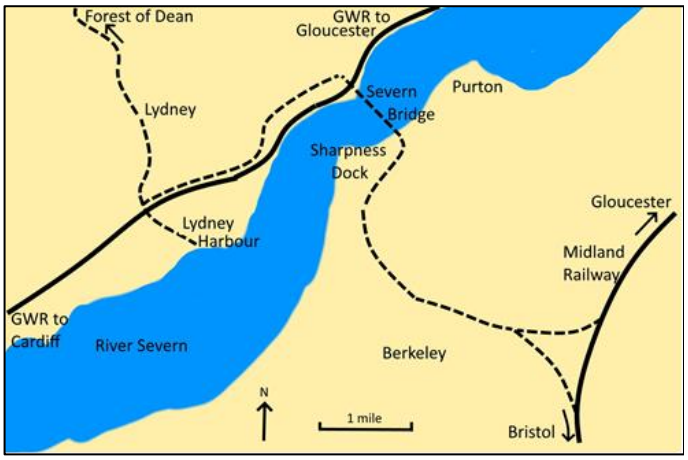
The line continued in use serving both the Forest and the Berkeley/Sharpness areas. Children living on the east side of the river were able to use the railway to get to Lydney Grammar School. It was also possible for locals to travel east and west without having to endure the long detour via Gloucester. All this ended one night in October 1960 when two barges, the Wastdale H and the Arkendale H, aiming for Sharpness in thick fog, missed the dock entrance and, in trying to regain it, collided with each other. Out of control, they quickly drifted upriver on the incoming tide and smashed into one of the bridge piers bringing down the two spans that it supported. The spans hit the boats and one carrying petroleum spirit promptly exploded; the other carrying black oil was set alight. Burning oil spread over the surface of the water and it was only luck and the heroism a few men who rowed out to them that allowed three of the eight lives to be saved. The two boats - still carrying the steel spans – drifted further upstream and, finally came to rest off Purton where they can still be seen at low tide.

It could have been worse – it is said that men were supposed to have been working on the bridge but they'd knocked off early to watch a televised football match. An Admiralty Inquiry decided that no-one was to blame.

In the months after the accident, British Railways announced its intention to repair the bridge. Taking up the theme of "normal service will be resumed as soon as possible", Lydney Grammar pupils from Berkeley and Sharpness were bused to school via Gloucester. But then came the Beeching Report and its proposal to close thousands of miles of track and hundreds of stations. Clearly, the line was not viable and possibly never had been.

Demolition was decided upon and began in 1967 finishing three years and several contractors later. The remains of some of the piers can still be seen at low tide and the stone supports for the swing bridge that took the railway over the Sharpness-Gloucester canal also survive. In time most of the Severn and Wye system was also dismantled. Much of it is now a cycle track although there is a section operated by the Forest of Dean Railway. As for the Sharpness spur, that continued in use to allow spent nuclear fuel from Berkeley Power Station to start its rail journey to Sellafield. Today, it is looked after by the Berkeley Vale Railway with plans to open it as a heritage line.

Ian Crossland, GSS



Sketch map showing the line of the Severn & Wye and Severn Bridge Railway

Lithium - the New Gasoline

Lithium ion rechargeable batteries have revolutionized small-scale electricity storage so that most of us now carry them around with us every day in watches, phones and, at my age perhaps, hearing aids. Lithium is the lightest metal and, when ionized, it forms a small and mobile ion that can move from one electrode to the other, the direction depending on whether the battery is charging or discharging. The big breakthrough, for which three chemists – a Japanese, a Brit and an American -jointly received the 2019 Nobel Prize for Chemistry, was the realization that a useful electrode did not have to be directly involved in the chemistry, all that was needed was to find materials that could store and release both lithium metal and lithium ions.

It's probably safe to say that the electric car industry would not exist without the lithium ion batteries which, typically, constitute 30% of its cost. Lithium is not the most expensive ingredient though – that honour falls to cobalt which, currently, may be found in a nickel-cobalt-manganese alloy used for the anode. But that can change - these batteries are being improved continuously: an article in The Economist last August had the headline "Million Mile Car Batteries are Coming". What will not change is the demand for lithium bolstered by the Government's ban on petrol and diesel car production post 2030 and the announcement this year of a giga battery factory to be built somewhere in the UK. And that's only the beginning because energy storage – and lithium - will become even more important as the country replaces oil with renewable sources. That raises a little problem for the UK and Europe in general: they have no home-grown sources of lithium; most of the world's lithium comes from – you guessed it - China.

Goldman Sachs, the multinational investment bank, has called lithium the "new gasoline", saying that demand could triple by 2025. All this expectation has fuelled lithium fever in places like Bolivia, Chile, Portugal, California and who-knows-where-else with much of the exploration focusing on deep brines where lithium exists in solution – along with a lot of

other stuff that you might, or might not, want. In Chile, they pump it to the surface and into vast lagoons where the sun evaporates the water to reveal the metal salts. And now Cornwall, once the metalliferous mining capital of the world, is getting in on the act. And it's been known since 1864 that hot springs, emanating from hot deep granite and discharging into the Cornish mines, had lithium concentrations that could support commercial exploitation. The problem then was that nobody wanted the stuff.

Cornish Lithium, a company formed in 2016, has been prospecting with government backing for lithium throughout the Cornish granite country. The general idea is to find a fault where there is a good flow of hot, lithium-rich groundwater, drill a borehole into it (see picture) and then pump the hot water from depth to the surface where it can be chemically treated to extract the lithium and anything else than might be valuable; that could include tin, copper, cobalt and even the heat that is brought up. Finally, the processed water is pumped back into the ground. The only impact on the surface will be the well-head and the processing plant – a relatively small industrial building – so that the environmental impact is much smaller than a conventional mine: no excavated rock, no tailings dump and no head works. There's no doubt that all this is feasible; the big question is whether it can be done at a scale that makes it profitable.

At the moment, of course, everything is at the investigation stage so money is going out with only information coming back in return. The spend in 2019 was around £2 million so this year saw a search for investors and an unusual way of finding them – crowdfunding – which, the company says, gave local people a chance to tap into an exciting project that builds on Cornwall's mining heritage. The hope was to bring in £1.5 million but the gambit was so successful that it raised over £4 million. With that new money in the bank, CEO Jeremy Wrathall (one-time graduate of the Camborne School of Mines) says the firm can accelerate and widen its ambitions. That includes the drilling of two exploration boreholes to examine the deep brines below the United Downs area – 5 km east of Redruth and close by the already existing Geothermal Energy Centre (with its own deep boreholes and Visitor Centre). Issues that need to be resolved circulate around the question of whether lithium can be extracted in sufficient quantity to justify commercialisation. And the company is now looking for another string to its bow: also on the to-do list is a borehole to examine hard rock lithium deposits associated with an old lithium mine that operated during World War II; this came to light only recently and is located on the site of an operating china clay pit near St Austell. So, exciting times ahead for Cornish Lithium. The crowdfunding campaign has stopped but, if you are a gambler and fancy a punt, the firm could go public next year.

Ian Crossland, GSS

Coal Power Plants fired-up

Three of the UK's last remaining coal power plants were brought back in to service to cover a drop in power supply from renewables and an increase in demand. A fleet of gas-fired power plants were also brought in to use to meet the shortfall until 'breezy weather' returns.

The electricity system operator said that the UK still had enough electricity to meet demand, but the cushion of extra power supplies was lower than usual "owing to a number of factors" including "varying renewable generation levels and colder temperatures". (26/11/2020) theguardian.com

Wales

Cost of securing Welsh Coal Tips

The Chancellor has been warned that the cost of ensuring the sfatety of 2,000 coal wate tips in Wales could be £500m. Calls for urgent action were made after a 60,000 tonne landslide above the village of Tylorstown, in Rhondda, earlier this year due to the heavy rainfall associated with Storm Dennis.

Ashley Patton, from the British Geological Survey, said the conditions in Wales made it more prone to these types of landslips.

"In south Wales we have the added pressure of a lot of coal waste sitting on top of those slopes which is unconsolidated material and can easily slip. Climate change may only make that worse". (06/11/2020) https://www.bbc.co.uk/news/uk-wales-54829054

Scotland

The following mining news from Scotland has been provided by Alastair Lings

Cononish Mine, Tyndrum, Perthshire

On the 30th November 2020 Scotgold poured its first gold at Cononish Mine. The companys account on Twitter recorded and illustrated the construction of the processing plant.

12 Jun- Preparations are underway for return to work with additional welfare facilities arriving today.
19 Jun- Scotgold starts delivery of equipment for preassembly today.
01 Jul- Pouring of building column pads and assembly of plant components underway.
07 Jul- Scotgold completes the first of seven slab pours ready to place equipment.
14 Jul- Scotgold commences process plant assembly on the building slab.
24 Jul- Filter assembly in place and installation of crusher circuit underway.
07 Aug- Scotgold prepares for its last concrete pour whilst continuing to install the process plant equipment.
18 Aug- Crusher circuit mechanicals in place and mill being prepared for lift.
21 Aug- Mill in position, feed conveyor installed and pipe racking/ cable trays ready.
26 Aug- Last heavy lift of process plant machinery (filter press) successfully completed.
02 Sep- Building erection well underway.
09 Sep- Roof sheeting commences while structural steel and piping continues.
16 Sep- Closing up the process building ready for instrumentation and electrical team.
18 Sep- Process building roof is on and lights are being installed.
26 Oct- Gearbox oil levels being checked in readiness for the start of the commissioning process.
09 Nov- Electrical installation works reach practical completion.
13 Nov- Cononish processing plant nearing mechanical completion.
01 Dec- Scotgold is delighted to announce that on St Andrews day 2020, first gold was poured at the Company's high grade, low cost Cononish Gold & Silver Mine!
https://twitter.com/scotgoldresltd

Stronachullin Mine, Ardrishaig, Argyllshire

Western Gold Exploration have acquired prospecting agreements in South Knapdale. Their forthcoming exploration will focus on the former Stronachullin Mine. In 2017-2018 Lorne Exploration drilled five boreholes around the mine, and two holes about 900 metres to the SSW of the mine: a total of 751.5 metres drilled. Stronachullin Mine was originally worked for lead probably from 1867-1871 by the Shirvan Copper Mining Company. The ore was discovered to contain gold in 1907 and in 1908 Montgomery Groves employed four men at the mine: three underground and one at surface. The vein was lost at a depth of 35 feet, and the mine was abandoned in 1909.
https://www.westerngoldexploration.com/

East & West Blackcraig Mines, Newton Stewart, Kirkcudbrightshire

Work for Walkabout Resources has included reconnaissance mapping and sampling, and a close-spaced ground magnetics geophysical survey. The geophysics indicates several NW-SE features parallel to the historical mines and it will be used, with old mining records and information from fieldwork, to plan an initial phase of drilling. The mines were discovered by a soldier in 1763 during the construction of the nearby military road. During the period 1763-1881 the mines produced an estimated 14 205 tons of lead ore, 1 222 tons of zinc ore and 28 tons of copper ore. The mines were explored in 1917-1920 by Ore Supply Ltd, and again in 1953-1954. https://www.wkt.com.au/2020-2/ (04/06/2020)

Ireland

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

Avoca Mines, Co. Wicklow

IMC Exploration Ltd has received approval for the excavation and sampling of unconsolidated mining waste in spoil heaps at Ballymurtagh, West Avoca. A long arm excavator will be used to dig a total of 12 pits in spoil heaps up to 4 metres deep. Following sampling, the pits will be immediately backfilled with the waste material and shaped to represent the original profile. It is proposed that the excavation and sampling will be undertaken over a two week timeframe in October 2020. The company hope to increase their Mineral Resource Estimate by up to 4000 ounces (124 kg) of gold. The former Avoca copper mines closed in 1982 and an attempt to work the dumps at East Avoca for gold was made by Connary Minerals and Feltrim Mining around 1990. https://www.gov.ie/en/publication/7d726-environmental-screening-determinations-and-decisions/ (07/10/2020)

Further Afield

Myanmar Amber Mines

Exhaustion of the ruby mines in the south of Myanmar (Burma) in 2014 caused many artisanal miners to decamp to the amber mines around Tanai in the far north. The ruby miners were used to deep mining and were soon digging shafts down to 100 meters. After reaching a suitable deposit they would tunnel horizontally to follow the “lode”. The result was a big increase in the quantity, quality and size of amber being brought to the surface – large pieces can be the size of a grapefruit. Amber is fossilized tree resin but the main interest (and the money) lies with those pieces that contain small animals - mostly flies and beetles – these having been caught in the sticky substance as it oozed from the wood and, indeed, deterring animal attacks is one reason why the resin is produced in the first place.

The trees that made this amber were part of a forest that was present in middle Cretaceous times so that the trapped creatures offer insights into flora and fauna that thrived around 100 million years ago. Amber from the Baltic and Dominican Republic (the other main sources) is much more recent. The palaeontological revelations from Myanmar so not stop at insects because, occasionally, the amber traps other forms of life: Xing Lida, a palaeontologist from Beijing, has discovered new species of birds and other vertebrates - most spectacularly, a tiny, feather-covered dinosaur tail. Over one thousand new species have been revealed so far but many specimens await detailed examination and it is thought that the number could eventually reach five thousand or more. The great advantage of fossils in amber is that they are three dimensional, this and the level of detail allows species to be described with great precision.

One of the complications is that this part of Myanmar is a war zone, fought over by the Myanmar government and the Kachin Independence Army. Both sides have sought to make money from the miners either by taxing them or extracting bribes. The amber reaches the outside world by first being taken to Myitkyina close to the Chinese border. Here it is sold or else smuggled into China where there is a big market at Tengchong (Yunnan Province). Smuggling is against Chinese law, of course, but it is a lucrative trade – good, rare specimens can fetch hundreds of thousands of dollars – so that officials have tolerated it for the economic benefits. Using brutal tactics Government forces recaptured the area in June 2017 and put the squeeze on the miners, since when, most of the deeper mines have been closed; others continue but, in any event, there was enough amber mined in the previous decade to keep the palaeontologists occupied for some time.

Scientists must compete on price against collectors and jewellery traders and, often, they will be out-bid. Sometimes, however, owners may allow scientists to study specimens on loan. While this is better than nothing, it may prevent publication in the best journals which, to limit fraud and error, insist that specimens be made available for others to examine. The scientists also face an ethical issue in that, by purchasing Myanmar amber, they may be helping to perpetuate a war that has been condemned for its human rights

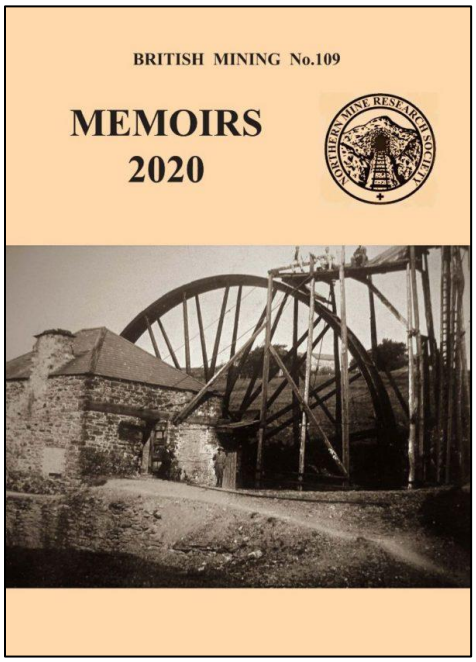
abuses. Ideally, one should wait until the political situation has stabilized; this might also allow the most scientifically significant specimens to be safely housed in Myanmar. This is a forlorn hope at the moment however and, meanwhile, the miners are simply trying to make a living.

Xing Lida, our palaeontologist from Beijing, now has an international reputation; at the Tengchong market he is a well-known figure whose say-so can cause the price of a specimen to soar. His aim now, he says, is to create a museum for the fossils which could eventually be returned to Myanmar if a suitable institution was available and willing to buy them. Sounds like another forlorn hope.

Based on article by Joshua Sokol, "Fossils in Burmese amber offer an exquisite view of dinosaur times—and an ethical minefield", Science, May. 23, 2019.

Ian Crossland, GSS

Publications



British Mining No.109, Memoirs 2020
Editor-Richard Smith, Northern Mines Research Society, paperback, A5, illustrated with plans, maps and photographs, 98 pages, ISSN: 0308 2199

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A History of the Wynnstay Collieries- *Nigel Chapman*
Historic stone industries in and around Trawden Forest and Colne- *Phillip J. Murphy*
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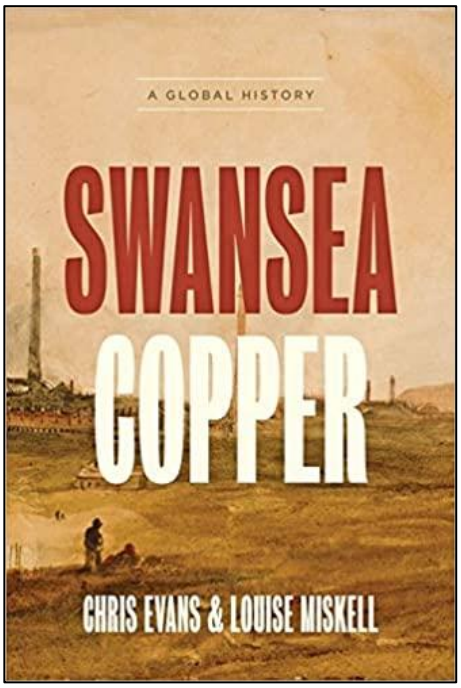


Swansea Copper: A Global History
Chris Evans and Louise Miskell, John Hopkins University Press, hardcover, 15.24x2.13x22.86cm, illustrated, 240 pages, £36.45, ISBN-13: 978-1421439112
Kindle version available £34.63

The first book to detail the global impact of copper production in Swansea, Wales, and how a major technological shift transformed the British Isles into the world's most dynamic centre of copper smelting**.**

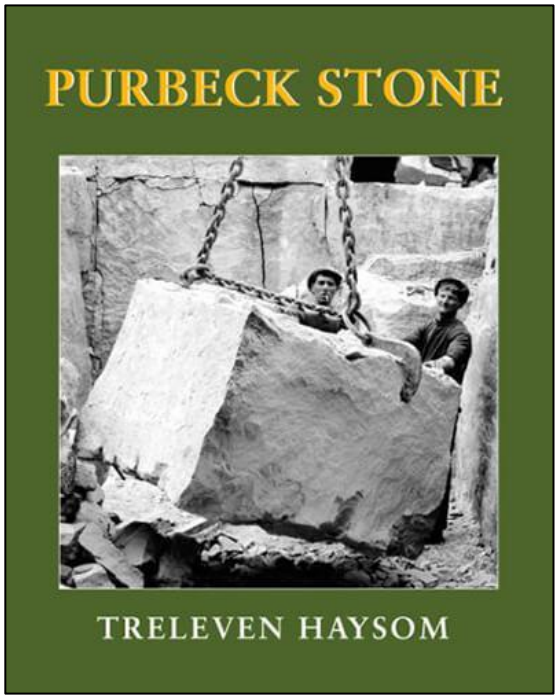
Eighteenth-century Swansea, Wales, was to copper what nineteenth-century Manchester was to cotton or twentieth-century Detroit to the automobile.

Beginning around 1700, Swansea became the place where a revolutionary new method of smelting copper, later christened the Welsh Process, flourished. Using mineral coal as a source of energy, Swansea's smelters were able to produce copper in volumes that were quite unthinkable in the old, established smelting centers of central Europe and Scandinavia. After some tentative first steps, the Swansea district became a smelting center of European, then global, importance. Between the 1770s and the 1840s, the Swansea district routinely produced one-third of the world's smelted copper, sometimes more.

In *Swansea Copper*, Chris Evans and Louise Miskell trace the history of copper making in Britain from the late seventeenth century, when the Welsh Process transformed Britain's copper industry, to the 1890s, when Swansea's reign as the dominant player in the world copper trade entered an absolute decline. Moving backward and forward in time, Evans and Miskell begin by examining the place of copper in baroque Europe, surveying the productive landscape into which Swansea Copper erupted and detailing the means by which it did so. They explain how Swansea copper achieved global dominance in the years between the Seven Years' War and Waterloo, explore new commercial regulations that allowed the importation to Britain of copper ore from around the world, and connect the rise of the copper trade to the rise of the transatlantic slave trade. They also examine the competing rise of the post–Civil War US copper industry.

Whereas many contributions to global history focus on high-end consumer goods—Chinese ceramics, Indian cottons, and the like—*Swansea Copper* examines a producer good, a metal that played a key role in supporting new technologies of the industrial age, like steam power and electricity. Deftly showing how deeply mineral history is ingrained in the history of the modern world, Evans and Miskell present new research not just on Swansea itself but on the places its copper industry affected: mining towns in Cuba, Chile, southern Africa, and South Australia. This insightful book will be of interest to anyone concerned with the historical roots of globalization and the Industrial Revolution as a global phenomenon.

(Publishers synopsis)



Purbeck Stone

Treleven Haysom, The Dovecot Press, hardcover, 29.7x23.0cm, 312 pages, 360 illustrations, £35.00, ISBN: 978-0-9955463-6-4

Perhaps the most overdue of any book about Dorset is a full account of the Purbeck stone industry. That the author is its foremost living authority is further cause to celebrate the long-awaited publication of Purbeck Stone. Treleven, 'Trev', Haysom's family has been quarrying on Purbeck since the 17th century. His practical experience gained from a lifetime of quarrying and masonry work transforms the bare bones of the industry's history into one enriched by oral and working traditions handed down from one generation to the next.

Uniquely in Britain, stone has been continuously quarried on the Isle of Purbeck since shortly after the Norman Conquest. Purbeck Marble decorates many of our most famous buildings, including Westminster Abbey and Canterbury Cathedral. The skill of Purbeck's medieval masons embellished cathedrals and country churches alike with everything from delicately carved columns to fonts and tombs. Purbeck's clifftop and inland quarries provided the stone for a more robust vernacular architecture: bridges, harbours, cottage walls, street paving, the stone tile for roofs.

Gifted storyteller, meticulous scholar, working quarrier – the author's accomplishments allow him to cast a wide net. A description of the various types of stone

and their beds is followed by the history, use and spread of Purbeck Marble. More widespread than the Marble beds are the inland limestone quarries, whose underground workings have long provided a livelihood for Purbeck's quarrymen and masons. Perhaps most remarkable – certainly the most hazardous – are the now abandoned cliff quarries, whose stone was lowered into small boats and then transferred into sailing vessels anchored offshore.

The uses to which the stone was put and the methods used to extract it, give way to a fascinating social history of the men, merchants and quarry owners on whom the industry relied. As Trev himself says, all had a powerful sense of place and of practices and traditions that until the recent past had barely changed since medieval times.

(Publishers synopsis)

The Redruth & Chasewater Railway: A Pictorial Excursion, Upalong and Downalong

Eric Rabjohns, Trevithick Society, paperback, 93 pages, £8.99, ISBN-13 : 978-0993502194

The book takes us on a journey along the course of this mineral railway, using the author's collection of old and current photographs plus his own watercolours. There are also track plans and pictures of what survives. The railway served the great copper mines of Gwennap, as well as Wheal Buller and the Basset Mines, horse-drawn from 1827 and with steam locomotives from 1854. It closed in 1915.

FORTHCOMING EVENTS

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

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.