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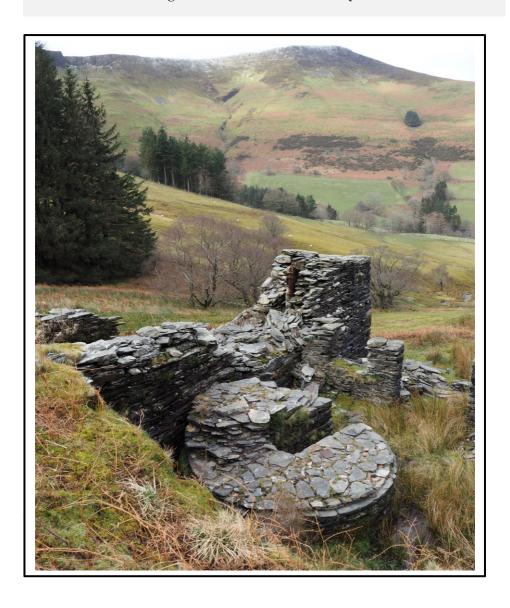
# Welsh Mines Society

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**NEWSLETTER 89** 

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#### THE VIM SILICA MINE



In Autumn 2006, Mike Munro<sup>1</sup> referred to the brouhaha resulting from an advertising campaign featuring a fictitious Pot Noodle mine in south Wales, featuring Welsh miners apparently digging for the snack underground. A number of complaints of racism were received from the public which the manufacturer, Unilever denied. It stated that it was proud of the history of Pot Noodle manufacture in Wales and defended its use of humour, truths and exaggeration in the advert. The complaints were considered by the Advertising Standards Authority, which agreed with the manufacturer that the advert was not racist.

Unilever, in the guise of its predecessor Lever Brothers<sup>2</sup>, was involved in a genuine mining project at the beginning of the 20th century, this time in north east Wales.

Vim, a gritty white scouring powder in a cylindrical container, was a familiar household product at one

time, but is now largely superseded by more subtle cleaners. In 1903, Lever Brothers developed a scouring derivative of their 'Refined Toilet Monkey Brand Soap'. A catchier name was needed and the product was launched as 'Vim'. It was vigorously advertised and quickly became a successful brand, being manufactured at the Port Sunlight works. Lever Bros. needed a supply of white silica which could be milled to produce the fine abrasive powder on which the product was based. The colour of the powder was considered a key selling point and silica of the right colour was not easily come by.<sup>3</sup>

In 1903, L.W. Carder, described as Flint and Silica Millers of Cefn y Bedd, Wrexham, secured a lease from the Westminster Estate for the extraction of silica (in the form of fine silvery sand) by underground mining in an area on Esclusham Mountain, opposite Hafod Farm, Minera<sup>4</sup>. The lease gave right of easement for a tramway or ropeway across the mountain down to the railway sidings at Minera in the valley below. In fact, Carder was working with Lever Bros. on the project and the

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<sup>&</sup>lt;sup>1</sup> Mike Munro *Pot Noodle Mine in Wales?* WMS Newsletter 55 Autumn 2006 p30.

<sup>&</sup>lt;sup>2</sup> In September 1929, Unilever was formed by a merger of Lever Brothers with the Dutch company Margarine Unie with the name of the resulting company being a combination of the name of both companies.

<sup>&</sup>lt;sup>3</sup> Peter Warburton *Up the airy mountain – a gallimaufery* Sheetlines 86 December 2009.

<sup>&</sup>lt;sup>4</sup> Ellis, Bryn, 'Quarrying and Limeburning', *Minera Lead Mines and Quarries*, Bennet, J (Ed.), Welsh Mines Preservation Trust / Wrexham Maelor Borough Council, 1995, p. 38.



Ordnance Survey 6" sheet XXVII.NW revised 1909-10. Published 1914

mine quickly became very active, with over 2,500 tons being removed by December 1904.

By 1908, 2,500 tons a year were obtained from here, with 18 men underground and four above<sup>5</sup>. However, problems with shoring the soft granular sand made it unsafe to operate and work ceased here in 1910. The abandonment plans<sup>6</sup> show a complex network of galleries in the mine and the Ordnance Survey maps show tramways at the mine and a ropeway to the railway<sup>7</sup>.

Lever Bros. exploited other sources of silica near Gwernymynydd where they operated for over 50 years until good quality supplies were worked out and extraction moved to Staffordshire, bringing to an end the mining of Vim in Wales.

**Raymond Griffiths** 

<sup>&</sup>lt;sup>5</sup> Bryn Ellis *Vim – The Flintshire Connection* Flintshire Historical Society Journal Vol 34. 1996 pp135-138

<sup>&</sup>lt;sup>6</sup> Flintshire Record Office AB 14-18.

<sup>&</sup>lt;sup>7</sup> Aerial Ropeways of North Wales

#### **RED DRAGON AND PENNANT "LODE 14"**

Following the memorable WMS trip to Red Dragon in 2017 I put on record the results of two independent modern sets of analyses (n/l 77, 9-11) which I consider prove conclusively that claims of gold in the black shales of the Nod Glas Formation at this mine were bogus. Similar claims were not unique around Dinas Mawddwy but seem never to have been tested in modern times.

In 2019 (n/l 80, 13) David Roe pointed out the close spatial and temporal links in the early 1850's between Red Dragon and the Craigwen mine and that Craigwen too had sought to boost its attraction by submitting quartz samples for gold testing; reportedly yielding 8.25 dwts / ton (Mining Journal, 1854, 517). However Craigwen was a conventional mid-Wales mine with fracture-hosted 'silver-lead' in volcanic and immediately overlying grey slatey strata totally unlike the black shale 'vein' at Red Dragon. So would the chance of finding 'silver-lead' in different stratigraphy have been a sufficient incentive to drive the long trial adit at Red Dragon which had begun about two years prior to these claimed assay results?

David noted that when Red Dragon was launched, Craigwen had been salvaged from the collapse of the Pennant and Craigwen Consolidated operation in 1851. This company was formed in 1848 but by 1850 was already seeking to dispose of the Pennant workings and focus on Craigwen, boosted by the claim by Matthew Francis (Mining Journal, 1853, 522) of 30-40 ozs / ton silver in the lead. If true, rather than promotional hyperbole, this would place Craigwen in the same league with notoriously silver-rich mines such as Penycefn!

The Mining Journal for 1846 and 1847 for the Pennant Lead and Copper Mining Co. gives much detail on the 22 lodes which were claimed in the Cowarch, Pumrhyd and Llaethnant valleys respectively SW, W and N of Llanymawddwy but for most is sadly uninformative as to their exact locations. No plans seem to exist and may never have been made. Many of the lodes are noted as lead-bearing but lode 15 *'promises copper in depth'* with copper noted also in lodes 12 and 13 in Llaethnant and barytes recorded in lodes 6 and 7.

By far the most intriguing is lode 14:

- a 'valuable lead lode. 4 to 8 ft... runs through the sett north-east and south-west a mile and a half; northern wall is mountain limestone, and southern wall gritstone, mixed with mica and mundic...'
- 'No. 14 is marked for many miles by a course of brown umber, mixed with cinnabar and crystals of lead and copper. There are two points particularly favourable for opening this lode at the waterfall, and at end of Pumrhyd valley' The waterfall mentioned here is the cascade at Rhiw March on the Llaethnant. Note in particular (Mining Journal, 1847, 159);
- -'At Pennant Waterfalls a large seam of ore runs in the south-west direction, through the high mountain called Pennant, parallel with a seam of mountain limestone, which, taken together, are 8 ft. wide. These parallel seams appear again in the south-west

sides of Pennant, in the Pumryd Vale, and are from 12 to 16 ft. wide. In the north-east outcrop (Waterfalls) as far as the seam has been opened, about 2 yards, the contents are coarse silicated per-sulphuretted iron ore, intimately mixed with manganese, zinc, mica, silver, gold, and copper. An open cut is being made about 40 yards from the water-course, and parallel with it, which will cut the seam about 10 fms., and will prove the value of this ore... and will be convenient for working the lode in the southwest direction. The ore will be valuable for the production of a compound sulphate of iron (copperas) which will give opportunity for separating the oxides of gold, silver, and copper... At a greater elevation outcrops the umber stone which, by exposure to the atmosphere, undergoes decomposition; the decomposed stone maybe made marketable on the spot, at a trifling expense. The large outcrop, in the Pumrhyud Vale, by washing, will give a richly coloured ochre... Many tons are now on the crop, and require selecting and washing for market'.

An earlier entry (1847, 57) mentions that the mundic (iron pyrites) is free from arsenic and that an assay found traces of gold and silver; also an unusually high 3.75% content of 'carbonaceous matter'. This latter analysis, the mention of manganese (also commonly elevated in black shales and a major component of umber) and, in particular, the stratigraphic position immediately below and parallel with the 'mountain limestone' (the Cymerig Limestone of modern usage) leaves no doubt that 'lode 14' is not a typical fracture vein but rather is the Nod Glas Formation, thinning NE from its 20 m thickness in the area around Red Dragon. The references to 'cinnabar', silver and gold still invite confirmation although the reference to the ore containing gold as an oxide gives little faith in the reported mineralogy.

It is interesting that the mention of gold is made 6 years before the speculative era induced by the publication of John Calvert's 'Gold Rocks of Great Britain' in 1853. One thus wonders whether memories of the 1847 claim of gold in Pennant 'lode' 14 may have been the stimulus for the Red Dragon venture; begun only 5 years later but sadly with similar results.

**David James** 

# SOME THOUGHTS ON THE CRAIG Y PENMAEN COPPER/GOLD MINE - A Series of letters to the Editor.

### 19th April 2022

When I see a mine suddenly transition from being for one mineral and become a gold mine, I am immediately suspicious that the operation is a scam. Therefore, when the WMS visit was announced, I decided that I wanted to explore this possibility before (hopefully) going on the visit in June. With very little known of the history, I tried to put the gold aspect into context in terms of the various gold frenzies in the area and also looked at the geology to see what possibilities that made available.

The mine is shown on OS maps as for copper. Geological maps put the land in the formation known as the early-Cambrian Rhinog Grits. These are not known as a significant source of copper and so a copper mine would appear to be something of an anomaly. Opening a copper mine incurs costs and so those who opened this one must have seen something that gave them hope of success. Traditionally, the way to find copper ore has been to locate the 'iron hat' deposit at surface where chalcopyrite, the principal ore of copper, has been subjected to weathering and has broken down into hydrated iron oxides that remain at the surface and have a rusty appearance whilst the copper has formed soluble compounds that have migrated downwards to form a concentrated band that is often commercially viable to work, but of no great depth. From what I have seen, the Craig y Penmaen hillside does indeed have these iron hat or gossan deposits, but the critical factor is whether they result from the breakdown of chalcopyrite or one of the other pyrites.

I made a short visit to the Craig y Penmaen Mine adjacent to the Sarn Helen trackway and examined the spoil tips in front of the level there. Amongst the rust-stained debris, I found many pieces of rock that had not been weathered and had upon them patches of small to medium crystals of iron pyrites. Even if mining for chalcopyrite had been quite thorough, I would expect to have found some pieces of that mineral, but I found none at all. The conclusion has to be that the gossan here, and probably in the other levels, was not formed from chalcopyrite and that the 'copper' mine had no viable copper.

Turning now to the gold aspect, I looked at Morrison's *Gold Mining in Western Merioneth* and learned that the first gold was found by either A. Dean or R. Roberts in or around 1836. The finds were publicised in Mining Journal in 1844/5, but seemed not to excite any great interest until there was gold fever in 1853/4, a date that coincides with the record of working for gold at Craig y Penmaen and the purchase of two Berdan pans for crushing and amalgamating it (*Morrison, p70/1 and appendix*). Quite why there was this time lag is not clear to me, but it is revealed in the correspondence between Dean and Roberts that the original find was in the gossan, not free gold in quartz as might have been expected. Pyrite can include gold in its structure, but it is bound up with that structure and difficult to release by mechanical

means, by normal comminution. The ore usually had to be sent to specialist processors, generally abroad. However, the process of weathering is likely to achieve that end naturally which would probably explain why Penmaen suddenly became a gold mine after some assays were performed.

The level at the Craig y Penmaen Mine is odd in the way that after circumventing a boulder in the entrance you are faced with a drop to a lower level before reaching a face where you have to climb back up to the original level. That suggests to me two phases of exploration, an original long, level drive followed at a later time by stoping of the first section of the level above and below. It would mean that this area of stoping was to remove the gossan which would normally be of no commercial interest, but if the original drive was seeking copper and the stope was for gold in pyrite, that would fit our limited knowledge. The ore could relatively easily have been taken along Sam Helen to the mill site below, but the Berdan pans were incapable of liberating the gold from the pyrite and the operation would have foundered (for the second time).

I think the above is a credible explanation that rules out the possibility that it was just a scam. In the limited time that I had for my visit, I noted one or two other things worth reporting:-

If the line of the lode is extrapolated towards the west, it can be seen that it must have crossed under the track. It is not visible there, but in the little hillock on the other side, there is a recess about a metre wide in which the lode is conveniently visible (if cleaned). A further extrapolation to the other side of the hillock is met with a line of boulders containing much quartz which, on brief inspection, appeared to have been partially molten - I want to have another look at them.

On the track, Sarn Helen, on the way down to the mill, a little above the black tank, there is, on the left side, a rare milestone built into the wall. In the same area a short length of the track is paved with stone blocks.

The mill site looks much as in your photograph, but the trees are regenerating and the mill is covered in moss and brambles and fallen bits of trees. It is difficult to negotiate a way around the building, but I did find an entrance and what looked to be a rectangular machinery platform. On the other side of the track leading to the mill I noticed a wall there that might have been part of an earlier building or mill, but was reluctant to plunge into the brambles to investigate further.

# 29th April 2022

This is just a quick comment on the fact that the workings to the east of Sarn Helen are not identified on OS maps whilst those to the west are. I think I may be able to explain that but to prove it would need some research.

When I looked at Dolfrwynog, the tithe map showed the area to be a complex patchwork of farmed land, wherever that was physically possible, in a matrix of what was known as Crown waste or common land. I suspect that the same applies to Penmaen, the land east of the road being waste, the lower west ground being farmed estate land. If so, then you would be looking at two mines with two leases, one from

the Crown which would be operated from London and would be unlikely to be found in local archives, the other from the estate owning the farmed land.

If, as appears to me to be the case, the original workings were those east of the road and were also the site of the gold venture, then they were probably finally abandoned when the latter venture failed. The 1861 French company probably explored those workings, but did not lease them so local knowledge declined and the OS surveyors thought them not worth recording. Instead, the French company leased virgin (?) ground to the west and conducted trials there as noted on the OS maps. That could mean a different name for that site.

#### 4th June 2022 - Penmaen

I have a couple of morsels of information that may be helpful for you. A quick look at the Trawsfynydd tithe map has shown that I was wrong in postulating that Craig y Penmaen was Crown property and would have had a Crown lease. The correct situation was as follows:-

The field containing the western side of Craig y Penmaen was called Graig Uchaf and was part of Penmaen land. The area of forest where the mill remains are was called Hen Ffordd and was part of Penmaen land. The field where the three small workings are was called Ffridd Ddu and was part of Tyddyn Mawr (to the NW of Craigy Penmaen) land. The boundary between the Penmaen land and Ffridd Ddu was the drystone wall immediately east of Sarn Helen and, to the south, the similar wall bordering the forest at present.

The Sarn Helen section of wall has fallen down where it passes the mine and there is a wire mesh fence in its place. If the missing section is mentally reconstructed, all of the mine spoil would be behind it and the mine would be seen to come to an abrupt end at the boundary. That indicates to me that the original Penmaen copper mine was confined to Penmaen land and suggests that the three small workings in Ffridd Ddu are of later date and under a different lease.

The date of the original copper mine eludes me. On the oldest OS map, the Surveyors 2" to 1 mile draft of 1819, the Turf and Dolfrwynog copper mines are marked, but there is nothing shown at Penmaen so it was not active then. The tithe map is dated 1840 and it also shows nothing of the mine, but the map was all about field and owner's names and acreages and since the mine did not alter any of those, it is not possible to tell whether the working was there or not.

If I am right so far, the only worked vein would be that of the old mine and I would, therefore, expect that to have become the Penmaen gold mine of 1853/4. Where the other of the half a dozen lodes tested were is an open question.

So, I see the French operation of 186l as having a new lease that included the Ffridd Ddu field as well as Penmaen, which would put a date of 1861 on the three small workings. However, I cannot see a definite link with the alternative name of Gelli Goch. I can only suggest that the new lease may have covered all of the land from Penmaen down to the main road, perhaps even to Afon Eden. That would be Penmaen, Tyddyn Mawr, Cae Gwyn and Gelli Goch.

#### 14th June 2022

Having had a most interesting, if puzzling and exhausting visit last Sunday, my interpretation of Penmaen has changed substantially. I do not know whether you plan to write an updated article for the Newsletter, but I think one would be useful so here are some views to perhaps set the wheels in motion.

As I said just before we parted the small opencast on Craig y Penmaen above the level appears to me to be the earliest working of the mine. Somebody has seen the 'iron hat' and opened up a trench along a clear vein before working downwards on a small shoot of ore. What was that ore? Bearing in mind that the mine dates to before gold was first discovered, to a period when copper and lead were being sought after and with the evidence of copper mineral staining in the level below, there can be little doubt that the miners found a small copper deposit and worked it. Spoil from the vein was used to build a narrow platform at the downhill side of the trench and presumably, there was a windlass and tripod frame there to lift ore and waste up to the surface, the ore going to a small sorting area nearby before being taken to what appear to have been dressing floors at a site lower down the hillside close to the boundary wall and the road. There is a large, fairly square, marshy area with fragments of walls and banks here, but too overgrown to identify detail. It might have been a reservoir or dressing floor.

The working itself is quite deep, but not long, and the miners may have had water ingress problems causing them to drive a level from road level (roughly) to explore the vein itself lower down and to come under the working to which it became connected by a hole in the roof. This would have provided both drainage and ventilation Apart from small patches of copper mineral staining; the level is otherwise barren and I would presume the the mine was abandoned at this point

At a later date, the first part of the level has been stoped above and below when it would seem that the rust-stained, pyrite-rich quartz was the target, presumably for the gold perceived to be within it. That would fit into the first documented working for gold in 1853/4.

The above text is, I think the easy part because the situation presented by the other four levels (the north level included) is not at all what I was expecting. As the last documented working was for copper in 1861, I assumed that these trial levels would be for that metal, but such examination as could be made during the visit failed to find any trace of copper or of the sort of vein likely to have had copper. Instead, what we found were bodies of massive pyrite-rich quartz, weathered to gossan near the surface, in indistinct vein structures. I can only suggest that these masses have formed as a consequence of the intrusion of the Rhobell Fawr volcano 5 miles to the south-east of the mine. Undoubtedly, that event brought gold into the area and so these 'copper' trials now have to be thought of as trials for gold and datable to the 1853/4 operation. That leaves nothing attributable to the French operation of 1861 which would be consistent with its lack of record.

One final comment - the level at the northern end of Craig y Penmaen has a military power/telephone connection nearby and I think it has been enlarged for use as an observation or control post, but started out as a gold trial. Finally, many thanks for an enjoyable day out. My muscles are beginning to work again!

#### 22<sup>nd</sup> June 2022 - Penmaen hits the buffers!

Despite my best efforts, research into Penmaen has run out of leads whilst still woefully short of revealing the whole story. I think I have uncovered enough information to suggest a history, but proof is very thin. In particular, I cannot find any link to a mining person or company, the records are just not there.

Geology: During the visit to the mine, I could see a landscape with a vein running through it with a small copper deposit that was consistent with the mid-Wales mining area. That vein, however, had been modified by a later intrusion of massive quartz with pyrite. To the west of Sarn Helen near the vein, there were large blocks of what appeared to have been Rhinog grits that were very largely altered to white quartz. In the levels below there, there was again massive quartz with pyrite in what looked to me to have been local joints that had opened up. All of this latter modification appears to be attributable to the arrival of the Rhobell Fawr volcano. This would have brought magma into the area which would eventually have cooled into 'greenstone', any gold in that magma being expelled in the process into quartz-rich liquids that were injected into compliant beds and fractures nearby. What everybody in the area hoped to find was the resultant free gold in quartz vein deposits, but the heat and pressure generated by the volcano also dissolved a lot of the local rock and this produced massive quartz that travelled along reopened fractures outwards from the intrusion. The heat from the volcano also caused circulation through the local rocks of copper in solution and of pyrites. These processes were poorly understood at the time and I believe that when samples of gossan ore from Penmaen were found to contain gold, the adventurers believed that it indicated free gold in the quartz whereas we know now that the gold had been bound up in the structure of pyrite and released by the weathering of that pyrite in the zone close to the surface. The importance of this difference is that free gold can be liberated by normal methods of comminution, but gold in pyrite requires processing by methods that had not then been developed.

**Early History:** I have tried to find out the early history of the mine, but without success. Only one potential lead looked promising, that of the vein name 'Francis'. I presume Francis was the discoverer of the vein so who was he? I think that there is a very high probability that it was Matthew Francis who in 1846 reported for the North Wales Silver-lead, Copper, and Gold Mining Company on Tyddynygwladis mine and also, apparently, on Vigra and Clogau. I have gone through the schedule in NLW of the Druid Inn papers (Francis Family papers), but could find no mention of Penmaen or of his other surveys. This seems to be due to a lack of surviving records

so I have postulated that Penmaen developed as a small copper mine of no significance until gold was discovered in Merioneth and that Francis then visited the mine, widened his search onto nearby land, found a new vein (the 'shaft' one?) and recommended that further exploration take place for copper and/or gold in an expanded sett. That, I think, led to Penmaen (Gold), which is how it is categorised in the initial MJ shares listing.

**Processing:** The discovery of gold in Merioneth posed a problem for everybody because there was no previous need to crush and amalgamate it and no processing plant. The first person to act to supply such equipment was Mr Berdan. He is initially in America picking up knowledge gained from gold working in California and quickly in Britain with a design for his Berdan pans (which feature a three foot diameter iron ball). A drawing of these appears in MJ, Aug. 20, 1853, p. 516. In the Oct' 29<sup>th</sup> edition, p. 684,there is a record of Cwmheision ores being tested in Berdan pans. There follows much debate about this process and when Mr Perkes reveals his new machine, it only adds fuel to the fire.

**Penmaen Shares:** As far as I can see, the first record of Penmaen shares was in the Jan. 14th, 1854, issue of MJ. It appears in the 'Mines which have sold ores' section which is a bit of a con as the only previous sales would appear to have been of copper. There were only I28 shares listed (poor copy, very small print size, hard to read, might be 125) at £125 to £130. The price remains stable until early March then rises to £250 on April 1st (no comment) then starts to decline. In the April 29th issue the price is £80 to £100, below its launch price, and it never gets above that again, being only £5 per share from Oct. 7th onwards. So what caused this rapid decline? With no reports from the mine itself that I can find, the answer is unknown, but I can speculate.

**Berdan Pans:** At Cwmheision, T A Readwin conducted a whole series of trials on different types of auriferous ores crushed and amalgamated in Berdan pans. In April, 1854, he published in MJ his basic conclusion from these trials that for some samples the results were very good, but for other types, there was no output. He reports that he was investigating the reason for this. I have a very strong feeling that it was realised that Penmaen ores were in the latter category and that their Berdan pans were going to be of no use to them. Furthermore, there was no alternative available. The mine seems to have continued to tick over in the hopes that something would turn up, but that was not to be,

That, I think, is all there is to be said. If you have any views or suggestions, I would welcome them.

Roger Bird

# THE "WILD WELCHMEN" OF HUDSON'S BAY (PART ONE)

#### 1. Introduction

In 1749 the Hudson's Bay Company (HBC) hired three miners from Wales. They were to prospect for minerals on the Eastern side of Hudson's Bay, to dig mines, to bucker and wash the ore, to smelt the ore, and to send lead and copper back to London. It did not go well.

In Part One of a two-part article, I will describe the decision-making process of the Hudson's Bay Company in pursuing this initiative, the recruitment of the miners, and the miner's experiences in 1749 and in early 1750.

In Part Two (in the next Newsletter), I will describe the miner's experiences from the summer of 1750 to the autumn of 1751 when they returned to London. Some of this will be based on a rare18th-century document: a Journal kept by one of the miners.

#### 2. The HBC in Hudson's Bay

In 1670, The Governor and Company of Adventurers of England Trading into Hudson's Bay was granted its Charter, and this gave the Company a monopoly on trade in Hudson's Bay. In the 1740s, this monopoly came under scrutiny. Some critics opposed monopolies of any sort (the Royal African Company was also under pressure at this time). Other reformers such as merchant and MP Arthur Dobbs (d. 1765) complained that the HBC was too passive. Cooped up in coastal 'factories' on the edge of the Bay, it was insufficiently 'imperialist'—its employees did not settle the land, did not stop French expansion, and did little exploration—not even for the hoped-for and strategically vital Northwest Passage.(Newman 10, 172-3) Dobbs initiated debates in the House of Commons in 1745, 1748, and 1749, and a special Commons Committee was created to examine the conduct of the HBC.(Journal of the House of Commons, 14 Mar 1748/9) Political pressure built on the HBC.

#### 3. HBC and minerals

An additional 1749 complaint about the HBC involved its failure to discover and develop the mineral resources of their territory. At the 1670 creation of the HBC, it was assumed that America abounded with mineral riches. The vast wealth of minerals produced through theft and mining in Spanish Peru produced similar hopes about North America, especially when some explorers (e.g. Radisson) described copper outcrops near Lake Superior. (Newman 80,82) It was a regular part of Company instructions to its employees to be on the lookout for evidence of minerals. The lack of success led to perplexity amongst HBC Committeemen (I will refer to them as Directors) and doubts amongst reformers about the sincerity of efforts of the HBC.

There was special optimism about an area far inland on the northwest of the Bay. An indigenous nation (the Dene) of central Nunavat were hopefully nicknamed the Copper Indians because they had some copper medallions. Ships were sent in

1719 to find the copper and the northwest passage, resulting in the death of every member of the expedition, which probably included miners. (Newman 220-2) As of 1749, no members of the HBC (or any European) had been recorded as visiting the area.

Another location of interest respecting mining (though with less enthusiasm) was along the east coast of Hudson's Bay. This was called the "East Main"—the eastern mainland stretching to Labrador. It was largely unexplored by HBC employees. There were no factories north of Slude River on James Bay. Indeed, very little trade in beaver furs originated from this side of Hudson's Bay. The House of Commons committee heard testimony from witnesses who had worked at Hudson's Bay. Some enthused about the prospects for lead in East Main. Others, such as HBC Capt. Thomas Mitchell testified in a more guarded fashion. Mitchell had been ordered to explore the East Main in 1748 looking for timber and mines. He had brought to London some samples from East Main which he had literally picked off the ground. Mitchell said that he had seen veins about an inch thick in rocks, but he could not say whether it was lead, though some of his companions insisted it was so. They tried to melt the samples, but "it runs into a heavy drossy Cinder" (39). Mitchell had a skeptical streak: he thought that copper bracelets the northwest indigenous wore were made from European kettles.

In early 1749, the Directors, under pressure, but hopeful, authorized the creation of a new factory in 1750 on East Main to be called Richmond Fort. Its location would be scouted in 1749. It was hoped that it would encourage trade with East Main indigenous groups including the Inuit, that it would intercept trade that might go to the French, and that it would discourage British 'interlopers' from breaking the monopoly (including discouraging private trade by HBC employees). In 1749, miners were to be sent to find ore deposits, mine them, smelt them, and send them back to Europe. The HBC had extensive experience in logistics, and all of this was organized in three months.

#### 4. East Main

Richmond Fort was established in 1750 on an island in Artiwinipeck Bay at about 56' 45" degrees North. The area has cold winters: according to Wikipedia the average January high temperature at modern Kuujjuarapik (a village at mouth of Great Whale River) is -18.7 degrees Celsius, with a record low of -49.4 Celsius. Because of ice, ships from Europe in the 1700s generally only could get into Hudson's Bay in late July, and had to depart in September to ensure they got out of the Bay. The short summers ensured that farming was not feasible, and the lack of large trees meant good building materials were scarce. Sometimes in the summer it could be uncomfortably hot (into the 30s Celsius) and humid. In the summer the miners were plagued by pestiferous biting insects. This area had a low population density—there appear to have been few indigenous villages in the immediate area. Relations between the Inuit and southern First nations were poor. About 25 kilometers south was the Little Whale River, which attracted many indigenous families for its beluga whale fishery in May

and June. The main lead mine was located on a tributary of this River. (Francis and Morantz, 66-78)

Three modern sources consider the mineral potential of the area. The <u>Copper in Quebec</u> report (1969) mentioned that "deposits of pyrite containing galena, sphalerite, and a little chalcopyrite and marcasite are disseminated between Richmond gulf and the lower course of Little Whale River" (p. 368). With respect to actual mining activity, a Quebec government website notes 7 spots between Richmond Fort and Great Whale River where lead has been detected. None appear to be the sites identified by the HBC miners (though in some instances it is hard to say what locations they were describing); and none proved to be substantial mines. (sigeom.mines.gouv.qc.ca/signet/classes). In 2023, there is no active production from lead mines in Quebec. (mmsd.rncon-mcon.gc.ca)

### 5. Recruitment: three miners, their instructions, and their supplies

The HBC fleet of four ships were scheduled to leave London in mid-May. In late March Director Lake made inquiries about recruiting one miner for five years from Derbyshire, but was unsuccessful. A second Director (probably Peter Elers) was a member of the Company of Mine Adventurers of England (CMAE), and offered to seek a miner from Wales, via Company Secretary Edward Sparke. Sparke suggested that two miners be hired, and said it was likely that they would only wish to serve for three years. Sparke contacted the CMAE's agent in Cardiganshire John Ball. On the 18th of April, Ball wrote back that he had found three miners: Richard Beach/Beech, Richard Parry and his brother Humphrey Parry.

Little is known about the three. Beach was literate—an HBC Director wrote that he was "Master of his Pen". Humphrey could sign his name, but Richard Parry signed his Albany Fort account with his "mark". They were likely from Grogwynion (from where Ball wrote) or nearby. The miners sent part of their salary back to Ball, who in 1749 sent 15 Pounds to Thomas Powell of Nanteos and in 1750 sent 30 Pounds to Valentine Owen of Newtown, Montgomeryshire, presumably for distribution to family.

The term of the contract was three years at 20 pounds per year, plus 6.10.0 for travelling charges to London and to fit them out. We know the yearly wages of other workers at Richmond Fort: the master of sloop 50 pounds (who was also the factor), the shipwright 36 pounds, the first mate 25 pounds, the bricklayer 25 pounds, the armourer 20 pounds, the bookkeeper 15 pounds, the cooper 12 pounds, a sailor 15 pounds, and various labourers at 10 pounds. (HBC A.6/8/52) The workers were supplied with food but had to pay for clothing and some bedding. The miners would also receive a share of the value of the ore sold in London (see below).

Every year the HBC Directors provided detailed written instructions for its HBC captains and factors at the Forts. They also provided instructions in a letter addressed specifically to the three miners:

<sup>&</sup>quot;You are to go on board ye Mary Capt Wm Coats for ye East Main coast in HB and

when you arrive at the place designed for a new Settlement you are to follow such directions as shall be given you by ye Said Capt Coats & Mr Thos Mitchell Master of ye Success Sloop and procure what Minerals you can come at and put them on board Capt Coats for him to bring them to England & not to Stay to Smelt them after which you are to go on board the Success Sloop who is to Sail to Albany where on Arrival Mr. Mitchel is to be fitted out for to trade at Slude River you are to go on board him thither, where on your Arrival at Slude Factory You are to Search out proper & Convenient places to dig for Minerals Which if any be found there you are to Smelt & prepare part of them & Leave them at ye factory at Albany to be sent by the next Ship from thence to England after which you are to proceed with Mr Mitchel to the new Intended Settlement on ve East Main & there Search & dig for Minerals & Smelt & prepare part of them to be sent home with ve Comps Ship that is to meet you at that Settlement where you are to remain till your Contracted time is Expired and In order to Induce you to be active & Industrious we do agree to allow you Two p Cent of ye net produce of all Such Minerals as we shall receive from thence, Over & above your Wages. Therefore Wee Earnestly recommend to you to be diligent & to use your utmost Endeavours to procure us quantities of Valuable Minerals & that you will be Obedient to Mr. Tho Mitchell & proceed cheerfully about your work. In Confidence of which Wee remain

Yours Loving Friends"
The Directors (HBC A.6/8/24)

In his 1749 instructions, Captain William Coats/Coates Sr (in the "Mary") was ordered on May 16th to head for Hudson's Bay accompanied by Mr. Thomas Mitchell in the "Success sloop", and to seek a good harbour between 58.5 and 60 degrees on the East Main where a factory with water and firewood could be established. If no suitable place was found, they were to head south to the Gulf of Hazard at 56.5. They were also to "Endeavour to find out some Mines & Minerals of Worth and Value", and to bring back to London unsmelted ore samples. As an extra incentive, of the profits from the ore sold in London Coates would get 30%, the ship's Surgeon 2%, the Chief mate 2%, 2 other mates 2%, the 3 miners plus bookkeeper would share 2% (note how this is different to the proposal in the miner's instructions), and the rest of crew 2%.

The two vessels carried supplies for the miners. I assume that the miners brought their own tools. The 1749 "Invoice" for the "Success" is missing, but we have a 16 May 1749 "Invoice" for the "Mary", though it appears only to be a partial manifest of the supplies carried. We also have two more abbreviated lists from the Albany Journal and from the Miner's Journal which give extra details. Lastly, we have a September 1749 "Indent" of Capt. Mitchell which listed supply requests of the miners, of which it appears that almost everything was approved in London. Together these provide evidence that the miners were well-supplied.

The invoice from the Mary lists the following supplies specifically assigned to the miners: 20 dozen tallow candles, 36 buckets, 60 fathoms of 3 inch white rope, 1

ream brown paper (probably for use with gunpowder), 4 sieves, 3 lanthorns, 24 prickers, 24 scrapers, 21 noggers (steel for drilling holes for blasting), 18 double picks, 6 double picks with hammers, 8 wedges, 24 stampers, 6 iron rakes, 6 boring hammers, 3 sledge hammers, 2 heading chisels and handles, 2 proad chisels and handles, 2 pecking gouges, 4 inch London made augers, 12 "best Gimblets" (a gimlet is a hand boring tool usually used for carpentry), 12 shovels, 6 Buckers (for crushing ore), 2 Rub stones (for sharpening carpentry tools), 1 grindstone winch, 4 "Clives" (possibly an iron hoop which attaches to a kibble and to which a rope is tied in order to pull the kibble up the shaft), 10000 nails, 2 steel hand saws, 12 files for the saws, 5 dozen ash helves (handles), 1 faggot square steel (a bundle of steel rods), 1 four foot grindstone, 2 barrels of gunpowder, plus a case containing 59 noggers, 6 double picks, 16 wedges, and 6 boring hammers).

At the end of the 1749 season we have an entry mentioning a fairly limited list of miner's supplies brought to Albany Fort to be stored for the winter, which included 4 Sieves, 6 Shovels, 6 Rush Baskets, 3 Boxes of Candles, and 2 Barrels of Powder. This is a short list; one would have to assume that the rest travelled with Richard Beach and Humphry Parry to Slude River.(HBC B.187/a/2)

In the 1751 Miner's Journal, Richard Parry noted extensive supplies delivered from Richmond Fort to the main lead mine: weights (for weighing), a sledge hammer (or a sledge, and a hammer), rope, bars of steel, tongs, nogers, kibbles, candles, powder, a bellows, an anvil, barrows, coal, picks, scrapers, stampers, wedges and hammers. The presence of a bellows and anvil suggests that they were doing smithing, which would include sharpening mining tools. The presence of kibbles (large heavy buckets for raising ore from a mine shaft) suggests an intention to dig shafts. The only complaint I came across regarding supplies was that the expected two chaldrons of coal for the use of miners and smiths had not arrived

The 1749 Indent requested steel bars for making chisels, gunpowder, candles, iron bars, barrows, a bellows, an anvil, 2 chaldrons of coal, 6 powder horns, "some" Lanthern Horns, 3 dozen large pick helves, 1 gun chest full of undamaged wheat straws for furzees (for blasting), and a further twelve items for smithing.

Based on this information, it seems fair to say that this was a well-equipped expedition (my thanks to Paul Reynolds and especially Jennifer Prothero-Jones for helping me with this assessment, and for helping to decipher these lists).

It also bears reiterating that this was not intended to be a merely exploratory expedition. The Directors intended that levels were to be driven, shafts to be dug; the ore was to be buckered (crushed into small pieces), washed (to separate out the ore), and smelted; the miners were to do their own smithing; and they were to pack the ore for shipping. This seems ambitious, particularly with respect to smelting.

We should also note that in 1751 (delivered by the "Seahorse") the miners received only coal (2 chaldrons) as new supplies.

#### 6. Voyage

The three miners left London on the "Mary" in the company of three other HBC ships

about the 16th of May. The general practice was to convoy together from London for mutual protection (even in peacetime), but also to avoid tarrying and to restrict private trading. Ships would especially need support through the hazardous Hudson Strait. Historian Agnes C. Laut wrote of the passage of the Strait as through a maelstrom of tides versus icebergs versus the land: "It is a battle of blind fury, ceaseless and tireless." (51)

The fleet made steady progress: 21st May at Yarmouth, 25th May at Bridlington Bay, June 7th at Orkney, with a July 9th arrival at the mouth of the Strait. The ships arrived as a group, which suggests that they avoided really terrible storms. It took them one week to get through the Strait which was pretty good (in 1750 it took a month). The ships then separated, with the "Mary" and "Success" heading down the East Main to find a suitable location for the new factory.

I have no information about the miners' reaction to the trip. I assume that was their first trans-Atlantic voyage. They may never have been to sea before, - if they did not have sea legs, the trip across the rough North Atlantic would have been hellish. The trip through the Strait was exhilarating and nerve-wracking even for experienced mariners. Mitchell traded for 5 tons of whale bone with "Eskemays"—our miners witnessed the impressive sight of 200 canoes approaching the "Success". If the miners signed up for adventure, they had found it.

#### 7. The first summer -1749

The captains quickly dismissed more northerly locations as the site of Richmond Fort, and on a "difficult coast" chose a small island in the almost enclosed Artiwinipeck Bay which opened on to the Bay at the Gulf of Hazard. This was about 25 kilometers north of the most promising area for minerals which was located along a creek tributary to the Little Whale River (likely the area investigated by Mitchell the previous year), but there was an expectation that mines would also be established around the Bay.

The "Mary" needed to sail for England by early September, hopefully with samples, so the miners had about 4 weeks to explore from their arrival on August 3rd. Their findings were reported in a August 28th letter to the Directors. They "tried" several places around Mitchell's site (calling it "the mine"), and found small quantities of lead ore, and Beach found "good ore at one place", but they could not find a vein. Beach speculated that the ore came from high up the hill; what was found lay in a swamp and much could be buried. A shaft would be required. The miners also found "two Lumps of Copper and Critiale Stones" about 1.5 miles northwest from the mine, and Richard Parry and Mitchell found "ore and cristall stone" across the river and on the hill. Their encouraging conclusion: "We are in good hope of finding the Mine body the next yere god spare health. We are shure the is a Large Body belonging to what we found."

Between one ton and four tons of lead ore (accounts differ) was stockpiled near Little White River. The letter and samples were sent back to England. In London, the samples were assayed (at a cost of 1.1.0), and 3 lots of the lead ore with an estimated

price of 5 shillings per hundredweight were placed in the HBC November fur sale, where all three sold (though I do not know at what price). The Company was happy enough to consider sending 7 new labourers in 1750 to help at the mines (though they did not do so). (HBC A.1/38/124-6)

So far, so okay. But there were clouds on the horizon both in London and at Hudson's Bay. The samples were not very good, and the miners were gaining a reputation for being heavy drinkers and for being difficult.

The HBC Directors wrote their 21st May 1750 instructions to the miners based on limited information. The Directors ordered the miners to leave the main mine and to concentrate their search for lead on the southern coast of Artiwinipeck Bay. They did not directly condemn the main mine, but they clearly believed that better ore could easily be found conveniently near the fort and with easier access for loading the sloop. The Directors also wrote that copper "is more valuable than the Lead Ore you sent us", and based on an understanding that good copper ore is found under the Chrystal, directed the miners to go to the place 1.5 miles from the lead mine where they found the copper lumps and crystal stone, and to "dig deep under such Chrystal" to find a copper vein. When the weather was inclement, the miners were "to be employed at the Forges in Smelting and refining as much of the Ore as possible", to separate out silver, "and you are to remelt the Litharge and Dross that remains of such Lead from which y have taken out the Silver". The instructions did not emphasize obedience to company officials, which indicates that the Directors were not fully aware of the disciplinary problems. In any case, the instructions would only be received in Hudson's Bay in August of 1750. Thus the Directors must have felt frustration when they learned in October 1750 that the miners had spent the summer focused on the main lead mine.

Back in the Bay, there was an incident which affected the relationship of Captain Mitchell and Richard Parry. Note that it was these two who had together found the lumps of copper. The 1749 HBC plan was that after spending August scouting for the factory site and for new mine sites, Mitchell would deliver to Albany Fort ore samples and furs, as well as leftover mining supplies (which would be sent to the mines the next summer). He would then take his sloop with the three miners to winter at Slude River.

Mitchell seemed to be a cantankerous, stubborn individual. In some situations in a harsh environment, these may have been beneficial traits to have for an officer in a quasi-military organization like the HBC, but not always. A fellow officer William Lamb wrote in his official ships's journal in 1750 that he preferred not to serve with Mitchell because "I cannot do any Thing to please him". Mitchell may also have been cynical about the entire mining enterprise. He had been very cautious in his testimony to the House of Commons committee in early 1749. By September 1750 he was reported by John Potts as saying "that the Mines is a Chimera and the Settlement a Joke." Mitchell would in 1750 be demoted from captain and in 1751 fired from the HBC because of private trading.

Richard Parry was also cantankerous and stubborn; we shall see repeated

instances of evidence of this below.

It appears that on the journey to Albany Fort there was an incident which involved Mitchell, Parry and others. On the 29th of August the "Success" and "Mary" parted ways, and Chief Factor George Spence of Albany Fort noted reports that "all" were "crying drunk". Perhaps drinking led to a disagreement? On September 14th, John Yarrow observed with disapproval that "Mr Mitchell and soam of his people hath had words in ye Voige" of the "Success" to Albany. What is clear is that Mitchell refused to allow Richard Parry on to the "Success" for the trip to Slude River "because he is a drunken quarrelsome Fellow". Mitchell apparently could not stomach wintering with Richard Parry. Mitchell also refused to allow two sailors, a carpenter, and a smith onto the sloop, but Spence did not mention this in the Albany Fort Journal—for him Richard was the prominent exile. Thus Richard would remain at Albany, while the other two traveled to Slude River on September 15th.

# **8.** The first winter -1749-50: Richard Beach and Humphrey Parry at East Main The miners would have to meet four needs while living in Hudson's Bay: food, clothing, shelter, and companionship.

The HBC supplied food to its employees. Supplies from Europe included salted pork, salted beef, flour, biscuits, occasional farm animals, raisins, and plums. The factories were supposed to supplement diets with fresh game and fish, which worked well for most of the factories. Alcohol would be distributed on special occasions, but otherwise employees had to pay for it.

Employees appeared to be responsible for their own clothing. The historian Peter C. Newman describes the winter clothing needed: "Winter dress consisted of a combination of pelts that must have made the Hudsonians resemble a surrealistic mutation of every furbearing animal within trapping range. The outer garment was of mooseskin, with cuffs and a cape of beaver, marten or fox. The breeches were cut from deerskin and lined with flannel over three layers of cut-up blankets. Shoes consisted of a shaped piece of tough leather wrapped around the instep and fastened securely."(151-2) Please note that this was what one wore *indoors*. To go outside one would have added another layer of beaver skin plus mooseskin boots. In addition, clothing was often stuffed with feathers and down.

Shelter: Albany Fort and the fort at Slude River were well-established sites and would have had log cabins; at the new Richmond Fort and in the mining camp the miners lived in tents. However, even the cabins were drafty and cold. HBC employees complained about how their wine and beer stored indoors froze; assuming a relatively moderate 10% alcohol content, wine freezes at -4 degrees Celsius. This sounds impossibly uncomfortable, but indigenous peoples had survived in this climate for thousands of years, and the Inuit lived under even more severe conditions.

We have a record of the purchases from the Company by the miners during their time at Albany Fort. It is not clear whether these totals included their expenditures at Slude River. We see that both Beach and Humphrey purchased mooseskin (Beach bought two) at 0.7.6 per skin; each bought feathers for 1.15.0 for

bedding and clothing; they each purchased tobacco, but not sugar; and they both bought more Castille soap than an average HBC employee. Both were amongst the biggest spenders at the Factory, and what accounts for this were their large purchases of brandy. Beach bought 7 gallons of brandy at 5 shillings a gallon for a total of 1.15.0, and Humphrey 8 gallons at a cost of 2 pounds.

The Welshmen were major consumers of brandy at Albany. The three Welshmen averaged 10.92 gallons in purchases (presumably not including Slude River purchases). Richard Parry skewed this as the second largest purchaser in the Fort at 17.75 gallons. The only person to purchase more was captain and sloopmaster Thomas Mitchell, who purchased a gargantuan 30 gallons, though in 1751 Mitchell denied purchasing this much. Average purchases for 45 men (leaving out Mitchell and the Welshmen) at Albany in 1749-50 was 3.23 gallons per person. In 1747-8 and 1748-9 the averages of the entire fort were 1.74 gallons and 1.67 gallons. In 1750-1 and 1751-2 the averages were 3.2 and 4.2.

When Beach and Humphrey disembarked at Slude River for the winter of 1749-50, William Lamb found it Journal-worthy that they unloaded 6 gallons of brandy. They were recorded as the most frequent purchasers of brandy from the Company in the Slude River Journal. Their tent on a prospecting trip was christened "ye Miners Inn", which implies hospitality and the consumption of alcohol. Mitchell thought that the miners could be motivated by the promise of drink. They had a reputation as drinkers.

There were other sources from which brandy could be obtained. If Mitchell had indeed bought 30 gallons, some of it might be used to reward his crew or employees, but much of it would have been sold or traded. In 1750 Mitchell was demoted for selling brandy to employees and First Nations as part of his illegal trading. The Company may have been concerned about the health and welfare of its employees and the First Nations, and it certainly did not want drunken employees or trade partners.

I have included companionship as a basic need. The miners had each other, and appeared to get along. They were part of small communities at each of their postings. We know that the leaders of the forts grew impatient with them (especially with Richard Parry), but we do not read of complaints by other employees. The miners had contact with a few indigenous men and women, usually as labourers or porters, but we read nothing about their relationships. There is no written evidence that the miners had sexual relationships with indigenous women. Prostitution existed at HBC posts. Worse, occasionally female war captives were sold as slaves to HBC traders. There were also more formal long-term 'country-marriages' between European traders and indigenous women usually linked to cementing trading relations with an indigenous group (Newman 204). There were no complaints in the Journals about the womanizing or fraternizing of the miners. I would guess that they would have few opportunities once they found themselves relatively isolated at Richmond Fort, but there may have been more opportunities at their mining camp, which was within 10 km of the seasonal indigenous whaling camp at the mouth of Little Whale

River.

We learn some details about life at Slude River from the East Main (Slude River) Post Journal (1749-50) kept by William Lamb. There were frequent mentions of the "miners", and sometimes they are named, but rarely do the entries make reference to mining. From reading the Journal, I think that it is fair to suggest that the following list of tasks (in order of importance) preoccupied the leaders of the fort: 1. Trading for furs; 2. Making improvements to the fort, as well as preparing supplies of timber for Richmond Fort; 3. Feeding themselves via hunting and fishing; and 4. Exploring for minerals. How did the miners fit into these tasks?

- 1. The business of the HBC was to trade furs. Private trading for one's self was forbidden, but was a constant problem. I have mentioned that both Mitchell and Coates would be dismissed for doing so. Could Beach and Humphrey have been involved? They had something to trade, as they had brought ashore 6 gallons of brandy. However, no accusations of private trading are found in the Journal nor in official correspondence.
- 2. Improving the fort: HBC forts (also called factories) needed constant repair and the building of new buildings.

For example, Lamb noted that a sawpit was being dug on Sept 30. The miners had the expertise and tools to do this, though they might have seen this as demeaning and refused; yet we know that Beach and Humphrey did other tasks that could be considered even less appropriate. Thus we have entries relating to miners squaring timber and serving as beasts of burden in pulling sleds loaded with timber. On other occasions, the miners helped bring firewood back to the post on a sled. My impression of HBC forts is that there was generally a pragmatic sense that many things needed to be done, and that they should be done when the weather allowed it. Beach and Humphrey seemed to have accepted this. However, in May 1750 Mitchell ordered them to sink a well "for good of this house", and, while they did so, they seemed to resent it: "Beach told him [Mitchell] if he had known but as much as he knew then he would not have done so much for him." But by May the lack of success in finding minerals would have increased tensions.

3. Feeding themselves: The Directors of the HBC hoped that the posts could be self-sufficient in terms of food. We read of Beach and Humphrey helping with fishing nets. The majority of the mentions of the miners in the Journal were related to hunting. Most of the employees at some point or another hunted, usually seeking partridges, but I was surprised that these skilled workers would be employed in this manner as often as they were. They frequently hunted partridges. I am not sure of the method used. One method was to use nets in which partridges could become entangled. Another method was to shoot them. The miners were described as 'hunting'. Their best day as hunters: on 12 January the 2 miners brought home 32 partridges. On other days they bagged 3 (20 Nov) or 4 (19 Dec). It is possible that hunting was combined with prospecting (i.e. 'hunt for partridges, but keep your eyes open') but this was not specifically mentioned as a strategy, nor do we get statements saying 'that while hunting, the miners found copper'. The journals are often

perfunctory, perhaps because so many of the tasks were seen as routine-especially the task of writing the journal!

4. Exploring for minerals: The Directors specifically ordered the miners to find mineral deposits. However, from their arrival on September 25th to late February there is no specific mention in the Journal of any activities related to mining. The weather would have been a big factor in this (often doubtful or downright dangerous), and travel by water made dangerous by ice. On the 24th of February we learn that the miners were repairing tools in preparation for going about 20 kilometers northwest across the ice to the Island of Cape Hope to search for gold, silver, and diamonds. For this specific journey I assume that they waited into February to be assured that the Bay had frozen. Thomas Mitchell gave Beach and Humphrey written instructions: they were to stay on the island until Apr 12th or 14th; they were to dig and blow up rocks; the labourer John Mousley would accompany and do the cooking, hunt partridges, and would labour as directed by the miners; and they were to keep an account in writing. William Lamb would deliver supplies. "I wish it may Continue moderate weather that you may all Return home Loaded with Diamonds." It is hard to tell if Mitchell was earnest or being sarcastic. Was he purposely sending them on a 'wild goose chase'?

Weather delayed their departure to the 5th of March. They set out at 4 am, accompanied by an unnamed indigenous man who helped with the baggage. By 3 pm, they had set up tent on the Island.

The stay was short, as was William Lamb's account in his Journal. To paraphrase: March 6: at 6 am we headed North with pick and shovels, but had difficult walking through swamps and cliffs, with deep snow still covering depressions; March 7 at 6 am we headed East, but did not see any veins,—the miners said it was necessary to wait until the ground was bare of snow; March 8 at 6 am headed south, no minerals; March 9 at 6 am go to the Northwest, still too much snow, and while we did find an abundance of White Spar, the miners were not sure if this indicated the presence of any other minerals. March 10: at 4 am returned to the factory. It reads like it was hard work, but Lamb did strike a note of conviviality in mentioning how he enjoyed "ye Miners Inn"—the nickname of the tent.

Mitchell was probably not happy that the miners returned so quickly; after all he expected them to stay away until mid-April. On the 3rd of April at 4 am, Mitchell sent them back with one week's provisions, and promised to give a guinea or "half an anchor of brandy" (4.15 gallons) as reward to <u>each</u> miner for one pound of ore of any kind. Mousley returned on the 6th with a letter from the miners saying they had found some small veins of copper; he returned to the Island with extra provisions. On the 14th, Mousley returned to Slude River with some stones and white spar, - a useless sample to Lamb. On the 20th Lamb himself went to the Island; on the 21st he left the Island with the miners and with *no* minerals. The disappointment of Lamb was clear in the Journal.

There must have been some samples, either from the Island or elsewhere, since a smelting experiment occurred on May 21st. Please remember that the Directors had expected the miners to be able to assay their samples and smelt them.

On the 21st some one had the idea of heating a sample of lead ore in a lime kiln. Again, Lamb was disappointed: when the kiln was cleared not one pound of lead was found (an ambiguous sentence—it is not clear whether some lead was found). Beach argued that this was because this was not a proper furnace—it just burned it all up.

The miners made a useful contribution at the fort, but had no success with their primary task. There had been some resentment and frustration felt by both the miners and the HBC officials at Slude River. Hopefully things would be better at Richmond Fort.

#### 9. The first winter -1749-50: Richard Parry at Albany Fort

So how did things work out for Richard Parry at Albany Fort?

Like Beach and Humphrey, Richard had to make purchases at Albany Fort in preparation for the winter. Richard purchased 1 moose skin, 3 deer skins, buttons, and feathers. He spent £0.17.3 on Castile soap. Richard also purchased a 4-foot gun for £1.10.0. He purchased 5 shillings worth of tobacco. Except for Mitchell (30 gallons of brandy), Richard was largest purchaser of alcohol: 17.75 gallons brandy at 5 shillings a gallon for a total of £4.8.9.

Above, I listed four tasks which preoccupied the leaders at Slude River: 1. Trading for furs; 2. Making improvements to the fort, as well as preparing supplies of timber for Richmond Fort; 3. Feeding themselves via hunting and fishing; and 4. Exploring for minerals. What contributions at Albany Fort did Richard make with respect to these?

The answer is: very little.

From the beginning, the Chief Factor George Spence gave Richard Parry special treatment. In the Albany Fort journal entry for the 25th of September 1749 (ten days after Mitchell had left), Spence wrote that he had all hands at work, "excepting ye Miner, who I intend to keep like a Gentleman, that he may have no Cause to Complain of bad Usage, and shall give him all the Encouragement I can, that he may answer the Company's Intention." (HBC B.3/a/41/10) Spence apparently saw Richard as a troublemaker and nuisance. Richard then almost disappears from the Fort's Journal and from a second Journal kept by Yarrow until Richard's departure for Richmond Fort in June of 1750. In October of 1749 there was a reference to the surgeon and the miner going hunting and returning with one plover and two ducks. Yarrow wrote on January 13th a damning entry: "ye Miner is Don no duty Since he came hear only devoits?/diverts? him Self of making of Casks Spars and Souch like things."(HBC B.3/a/42/7) We also read in the Fort journal that between the 25th of January and the 8th of February the miner was out hunting with the armourer and the surgeon, but they brought home very little. One cannot help but think that Spence was pleased to have Parry outside of the fort. So, Richard did nothing with respect to fur trading, virtually nothing improving the fort, made a negligible contribution to the food supply, and apparently did nothing involving mining. Worse, Richard's drunken inactivity must have been seen as a bad influence on others.

On June 15th 1750, Mitchell returned to Albany Fort from Slude River with

Beach and Humphrey. Mitchell was transferred to the command of the "East Main" and William Lamb took command of the "Success". Both sloops were loaded with building material and food supplies, and took aboard men to construct the fort (including a labourer named Richard Astley) and the three miners. On the 20th, they sailed for the Gulf of Hazard.

Spence did not complain when Richard Parry departed. Later, on July 30th, Spence wrote that the miner Richard Parry and Richard Astley were "two of the drunkenest fellows in ye Country", and had been glad to be rid of them. (HBC B.3/a/41/45)

Their first year at Hudson's Bay was completed; what would the next two years bring for our Welsh miners? I will describe this in Part Two.

**Note:** Richard Beach (sometimes written as Beech), Humphrey and Richard Parry (sometimes written as Perry) returned to Britain. I lose sight of them there. May I appeal to the members of the Society—can you provide any sightings of these miners in Wales or elsewhere? Jennifer Prothero-Jones has provided me with a possible sighting of "Dic Beech" at Esgairmwyn or Cwm Darren in Letter 416 (14 Dec 1756) from John Owen to an unnamed recipient in H. Owen, *Additional letters of the Morrises of Anglesey*, 2 pts, London, 1947 & 1949 (*Y Cymmrodor*, vols.49 pts. 1 & 2). Please contact me at rvandewe@uwo.ca if you can help.

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#### ROCK CRYSTAL MINING

Much as I enjoyed reading Tom Cotterell's article in NL 88 on the history of rock crystal mining (and recognise the amount of research effort it entailed), the part about his search for Lake Fynnon Vrech landed me with a conundrum. His conclusion that the evidence favoured a location close to Crib Goch seemed inconsistent with Lhuyd's description (in translation) of "not far from the church of St. Peris" which, as the dragon flies, is about 31/2 miles away. I decided to check the translation using my big, old Latin dictionary.

The result was rather surprising: "non procul Ecclesia Divi Perisii", came out as "not far from the assembly of the Peris gods" an apparent reference to pre-Christian beliefs and not to the church of St Peris at all.

The ancient Greeks believed their gods resided on Mt. Olympus and many religions have similar beliefs. Had Lhuyd detected traces of something similar in Wales, local gods living on top of Yr Wyddfa (Snowdon)? We will never know, but, as far as the Fynnon Vrech issue is concerned, the top of the mountain is not far from the deduced location near Crib Goch and the conundrum has been resolved.

One other comment I would make is that in Lhuyd's description of his no.10 crystal, the word 'five' appears to be wrong. If he had meant the number 5, he would have used *quinque* as for specimen no.2. In the print of the time; the letters s and f differ by only a small bar on the f so I suggest that the word should be *sive* meaning "or". The text then becomes something like

Large crystal of Marble (i.e. white stone), or semi-opaque like hail (stones).

I totally support Tom Cotterell's view that the origins of the crystal veins are different in time from those of the ore veins and I can put forward an explanation from my own experience of how the hunt for crystals may have started.

Prior to moving to Wales, I lived at the centre of the Dartmoor National Park. The moor has many tin workings of course, but also a number of small, unrecorded excavations that seem to have been made for no obvious reason. I was told that the miners, knowing that the granite was essentially impermeable, would, if they saw a small spring, deduce that there must be a fracture in the granite and would dig down to the source of the water in the hope of finding minerals in the fracture. One day, whilst walking across a nondescript patch of moorland, I noticed a small spoil heap next to boggy ground and investigated it. The search for minerals had clearly not been fruitful, but on the spoil tip I found a single quartz crystal, hexagonal, 6cm long, by 3-4cm across. It would not have excited a crystal collector because the pale amethyst interior was coated in an opaque light brown coating, but had it been clear then it is easy to see how impoverished locals could have exploited the opportunity to make some money.

Roger Bird

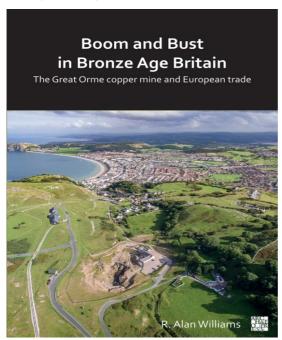
### **PUBLICATIONS, SOURCES and REVIEWS**

#### Correction

Slate Mining at Aberllefenni, Corris by Keith Whadden appeared in the Autumn 2020 issue of Below!, not the Spring 2020 issue as stated. Apologies for any confusion caused.

# Boom and Bust in Bronze Age Britain: The Great Orme Copper Mine and European Trade By R. Alan Williams

H 290 x W 205 mm, 374 pages, 218 figures, 36 tables (colour throughout) Published Feb 2023. £60 paperback or downloadable as a pdf for £16 (personal use) or £60 (institution)



Alan Williams will be known to Welsh Mines Society members for his research on the Llangynog lead mining area. Like other Society member who reached that certain age and retired, and took up the call of academia, we turned our interests into a PhD, often in subjects related to our pre-academic career. Alan, previously the head of the Raw Materials and Glass Compositions Department at Pilkingtons Glass is no exception, and applied his analytical experiences to examine the products and production patterns of the Great Orme Copper mines during the Bronze Age. His research conducted at Liverpool University

identifies the significant trading role the mines had during this period, and is summarised in his recently published book 'Boom and Bust in Bronze Age Britain: The Great Orme Copper Mine and European Trade'

The book is laid out very much along the lines of Alan's PhD Thesis, with a short introduction (Chapter 1) detailing what Alan wanted to achieve, and outlines the various topics in the books' ten chapters, before finally pointing the casual reader

away from the meatier chapters that cover all the detailed analytical work that Alan sourced from other researchers, or conducted himself, with all the sophisticated equipment he had at his disposal at Liverpool University.

The chapters 2 and 3, perhaps some of the most interesting from a mining history perspective, examines the Bronze Age across Europe, which I found very interesting as it shows just how much the concept of the 'Bronze Age' varies across Europe, and that alone, will be the source of much academic debate for years to come. Copper mining is examined in a European context, before zeroing in on the British Isles, and examines some of the Classic mine sites that one would associate with Bronze Age mining. The final part of this section is a brief statement on the sources of tin, as this metal along with copper is required to produce bronze. The sources of tin during the Bronze Age have never been fully understood, mainly due to a scarcity of archaeological evidence.

Chapter 4 covers in 36 pages the prime subject of Alan's research, the Great Orme Copper Mine. It includes the mine's immediate archaeological setting, and examines the work and research done to reveal its geological and Bronze Age origins. This Chapter concludes with an examination of the excavations and analytical work carried out on the Pentrwyn smelting site, attributed to the Bronze Age, and located on the north side of the Great Orme. Perhaps a little more could have been mentioned of the paleo-environment at this point, for example, the forests that provided the source of fuel; charcoal, but again archaeological evidence is scarce and is limited to fragments of charcoal.

From this point (Chapter 5) the book starts to become very technical and reviews the metal characterisation and its provenance by covering the various studies (trade in the Bronze Age, etc.) that are often based on the analytical work on artefacts.

Chapter 6 for example, examines the methodology, the materials (copper ore, slag, artefacts) and the analytical methods employed, with detailed plans of the Great Orme mines showing the exact locations of the many underground ore samples taken by Alan. Elsewhere in the Chapter, the inevitable experimental smelting methods are documented, perhaps illustrating just how much we don't really know about bronze production. The following Chapters (7 and 8) mainly cover the analytical data with detailed tables and graphs that looks at the elemental components of the samples, from various mine and archaeological sites around the British Isles, with a few from Europe for comparison.

Chapter 9 is perhaps one of the more interesting as it covers 'Discussion and Interpretation'. Basically, it asks some of the current in vogue questions, and answers them, based in most instances on Alan's findings. Mention is also made of tin, the other major component of bronze, along with copper. The hypothesis is that a rapid change took place around 2150 BC, when alluvial tin was discovered in Cornwall. But this is open to debate. There are for example, rich alluvial tin deposits in Portugal, and Iberia which did have an extensive Bronze Age culture, possibly more sophisticated than that experienced in Britain at that time. Meredith's work (BAR International Series 714, 1998) on ancient tin mining and smelting sites in Iberia might have

deserved a mention. However, this is a topic, together with the migration of the Bronze Age culture across Europe that is constantly under review. It is based on the latest archaeological evidence and the jury is very much out on those matters. As an aside, it is pleasing to note that Alan has now joined 'Project Ancient Tin' at Durham University, to examine the tin question further.

Perhaps the final Chapter rectifies some of these doubts, and details a number of conclusions based on the research. I was pleased to note that it is widely regarded that the Palstave - a type of bronze axe may have been invented in North Wales - if this is fact, then certainly there is one of the standards for which to evaluate trade routes, and the spread of technology. (It is noteworthy that the stone axes from Craig Lwyd axe factory at Penmaenmawr had a similar effect on Neolithic society 2000 years earlier.)

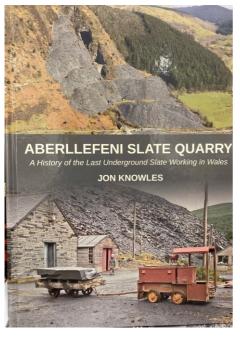
The conclusions of Alan's research work are also summarised in Chapter 10. The primary conclusion, supports the title of the book: The Great Orme mining phase in the Bronze Age was finite, but did generate a 'Golden Age' from roughly 1600 to 1400 BC - in fact, Britain's first mining boom. 'This zenith period of large-scale production is thought to have required a full-time mining community, possibly supported or controlled by the agriculturally richer area of north-east Wales with its strategic links into wider communication networks. Overall, the new evidence suggests that Britain was far more integrated into European trade/exchange networks than was previously suspected.'

It has been a pleasure to review this tome. The work summarises and brings together information about the British, and to a lesser extent the Continental Bronze Age and highlights the important role Welsh copper mining had in shaping the Bronze Age trade and culture. I know from experience the difficulties presented in turning research into a publication that can be enjoyed by many, so it is important from the onset to appreciate the needs of the target audience. In some respects, Alan's book has achieved this, and clearly will appeal to both the metallurgical aficionado and the mining historian.

At £60 a copy, the book is perhaps more costly than many on Welsh mining topics. Nevertheless, it is printed in colour on high quality gloss paper, and overall the illustrations and photographs are good, although some of the tables and charts are slightly blurred and are presumed to be direct scans from Alan's thesis. However, the publishers have thoughtfully produced the book in Pdf format at £16 a download, which may be an affordable way forward for Society members with an interest in the Great Orme Copper mine, to obtain a copy of this work.

Rob Vernon

Aberllefeni Slate Quarry - A History of the Last Underground Slate Working in Wales. *Jon Knowles*. Published by the author. ISBN 9781399951678 277pp £35.00



Hot on the heels of Dan Quine's book on the Hendre Ddu Tramway and its associated quarries (see N/L 88) comes another slate quarry account, this time from over the hill at Aberllefenni. (The quarry's official name had one "n", hence the book's title).

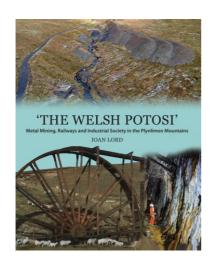
Aberllefeni is one of the oldest slate quarries in Wales, reputedly started in the 14<sup>th</sup> century and certainly the last to be worked underground, closing in 2003. In fact there were three quarries here - Foel Grochan on the northern side of the valley and Hen Gloddfa and Ceunant Ddu on the opposite side. Some structures remain above ground, in particular water balance inclines, but most of the tips that filled the valley floor have been taken away for hardcore. The two water balance inclines that were used to lift waste slate to a higher level remain a feature, one in

very good condition. Much remains below ground in all three quarries and there are numerous photos of these, many from places inaccessible to the casual explorer.

Jon is a WMS member and indeed, led the walk around Aberllefenni on our recent Autumn meet. He has spent 15 years on archival research and in exploring the underground workings here. The result is a thoroughly well researched book containing historic and contemporary photos, drawings, maps, diagrams and facsimiles of historic documents. The book is produced to a very high standard and is an essential addition to any slate enthusiast's library.

**Raymond Griffiths** 

# The Welsh Potosi - Metal Mining, Railways and Industrial Society in the Plynlimon Mountains *Ioan Lord* Hardback Vale of Rheidol Railway £45.00



The Plynlimon Mountains, situated in the heart of central Wales and the wider Cambrian Mountains, were once known by a different name, a name that was composed to reflect the riches of South America during the seventeenth century. The mountainous region stretching north from Ponterwyd was christened the 'Welsh Potosi', after the World-famous Potosí silver mines in Bolivia. Over fifty mines were opened to extract the ores of lead, zinc, copper and silver, and numerous plans were made to construct railways and other transportation links from the mountains to the coast. Villages and scattered communities were established high in the hills, as the Plynlimon Mountains became populated with miners and engineers

living alongside farmers and shepherds. Dwellings and landmarks were given names such as the 'California of Wales', the 'Welsh Broken Hill' and 'Spain'. The 'Welsh Potosi' grew to be so important that it led to a significant change in the future of British metal mining in 1693. Today, the industrial significance of these hills between Aberystwyth and Llangurig is largely forgotten, and the name has long vanished from every map. It is hoped that this book will breathe new life and interest into the oncefamous 'Welsh Potosi'.

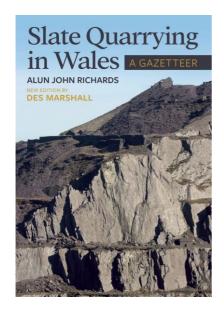
Ioan is a director of the Welsh Mines Preservation Trust & Cambrian Mines Trust and has spent many years researching the history and archaeology of metal mining in central Wales. His passion for this history, as well as his knowledge, is clear to see in his work, studying the rise and fall of mining, railways and society in and around the Plynlimon Mountains, with many amazing images taken during his authorised exploration of the mines.

This new title builds on the success of his first book published by the Vale of Rheidol, *Rich Mountains of Lead*, of which the first print run completely sold out.

The new book is available only from the Vale of Rheidol. With the initial print run being limited in numbers and interest expected to be high, early ordering to avoid disappointment is recommended.

See https://www.rheidolrailway.co.uk/shop/ for ordering information.

**Publisher's Information** 



Slate Quarrying in Wales: A Gazetteer Des Marshall Carreg Gwalch, Llanrwst ISBN: 9781845245382 Paperback, 198x128 mm, 420 pages £15.00

This is a revised version of Alun John Richards' *Gazetteer of Slate Quarrying in Wales* of 2007, itself a revision of his first one published in 1991. Landscaping, infill, bulk extraction from spoil heaps and natural decay constantly alter sites, as does ongoing work at some quarries and mines. This revision by Des Marshall is an update with short descriptions of the history, development and remains at 769 quarries and sites and adds colour photos of many. The format remains the same, with a map

of each district followed by descriptions of each site in alphabetical order. While some careful proofreading would have corrected the many annoying typos carried over from the 2007 edition, the book remains an extremely useful reference for the slate quarry explorer.

**Raymond Griffiths** 

# **NEWS**

#### WILKINSON'S GAZETTEER UPDATE

Most WMS members will be aware of the Gazetteer and Bibliography of the Mines and Quarries of North Wales created by the late Jeremy Wilkinson and converted (at Jeremy's request) into an interactive website by Dave Linton. (Members who are not aware of this facility might care to look at <a href="https://www.hendrecoed.org.uk">www.hendrecoed.org.uk</a> for background information.)

Outside the mining history community, the website has been used by a consultant to Network Rail to identify mining sites near railway lines. Also, the grid references of sites in the Gazetteer have been used to contribute to a geographic information system being developed for North Wales Cave Rescue Organisation.

Following an expression of interest from South and Mid Wales Cave Rescue Team, Dave has taken data for the remainder of Wales from the GB1900 Gazetteer of named features shown on the OS second series 6-inch OS maps. Although this data does not have the bibliographic depth of Jeremy's north Wales research, Dave has

added references to David Bick's *The Old Metal Mines of Mid Wales* and George Hall's *The Metal Mines of Southern Wales*. Consequently, the system may be used as an index to the mines in these publications. In addition to the metalliferous mines of majority interest to WMS members, the data include quarries and coal mining sites of south Wales.

The Gazetteer now contains more than 22,000 site records and more than 7,500 person and company names. Full details about the gazetteer and its data are available on the above website.

Much work remains to be done in the way of adding references to other relevant sources. Dave would welcome comments on the system and submissions of corrections and additional information.

Dave Linton

# WORKS IN THE GWYDIR FOREST

# Pen y Gwaith reservoir

A press release by NRW describes the works carried out at Pen y Gwaith reservoir, which served High Hafna and Pen y Gwaith lead mines. This involved clearing vegetation, improving embankements and constructing spillways. Llyn Sarnau and the Cyffty reservoir have also had the same treatment, in response to the 2010 amendments to the 1975 Reservoirs Act, as has the flooded pit at Rhiwbach slate quarry ( see N/L 81, p.28).

https://nation.cymru/news/repair-work-completed-at-historic-conwy-reservoir/

#### Coedmawr Pool and Llanrwst mines

Consolidation works have been carried out at the remains of the Coedmawr Pool mill on the banks of the Afon Llugwy and also on the Llanrwst mine chimney. Presumably these have also been by NRW.

#### DYFI FURNACE

An article in the Cambrian News describes the role of the blast furnace in producing iron from ore brought from Cumbria, utilising charcoal produced from the local forests, located on the banks of the Afon Einion, water from which was harnessed to drive a waterwheel powered bellows to provide the "blast". The furnace was in use from 1755 to 1795 and was one of the last charcoal- fuelled furnaces to be built in the British Isles.

https://www.cambrian-news.co.uk/news/was-dyfi-furnace-a-secret-mint-for-civil-wars-king-charles-i-631433

Cambrian News 16/8/23 via Dave Seabourne

#### SCOTTISH GOLD

It is reported that most of the staff at the Cononish gold mine have been laid off due to the company, Scotgold Resources, running out of money. Trading in their shares have been suspended and although talks are ongoing to secure funding, the administrators are also being brought in "as a precautionary measure".

The Times 30/9/23

#### WELSH GOLD

Core drilling and bulk sampling have been carried out in the Llechfraith adit, resulting in potential gold bearing veins being identified below the deepest previously mined ground. Permission to dewater the workings is now awaited from NRW.

Alba Mineral Resources website

https://www.albamineralresources.com/project/clogau-st-davids-gold-mine-wales/

#### **CORNISH TIN**

The increased price of tin has prompted the reopening of South Crofty mine, closed since 1998. The first step is to dewater the workings, estimated to take up to 18 months at a cost of £10 million at current electricity prices. The water will be cleaned of impurities including iron and arsenic before being discharged into the Red River. Work to extract the estimated  $80\,000$  tonnes of ore will begin in 2026.

The Times 21/9/23

#### GUNNS MILL FURNACE, MITCHELDEAN

Historic England has awarded a grant of over £31,000 to the Forest of Dean Building Preservation Trust to help repair Gunns Mill Furnace in Mitcheldean, Gloucestershire. Gunns Mill is considered to be the best-preserved charcoal blast furnace in Britain.

#### NEW DATABASE FOR THE BUILDING STONES OF ENGLAND

The **Building Stones Database for England** has been launched by Historic England and is described as the first online searchable tool bringing together information on all the different types of stones that have been used in the buildings of England over the centuries.

The database is free to use and is accompanied by illustrated guides highlighting the geology and distinctive stone buildings of the country. Uses can browse the geological map, search by postcode, address or place name or look for a specific building stone and representative buildings made with each stone type. The database, which catalogues more than 4000 types of building stone, can also be used to source specific stone for repair work or new construction.

Production of the database was motivated by a desire to help support those that work to protect old buildings. To access the database go to

historicengland.org.uk/building-stones-england.

From the geological magazine Down to Earth, via Paul SmytheFIVE

# FORTHCOMING WMS MEETS

# **Spring Meet 2024**

The next Spring meet will be held in north Wales, in the Betws y Coed area, on **Sunday 24<sup>th</sup> March 2024**. The usual buffet will be provided. If there is demand, field trips may be organised on the Friday and Saturday for those wishing to make a long weekend of it. Details will be emailed to members nearer the date.

#### **Summer Meet 2024**

This will be in the Pumlumon area on **June 15<sup>th</sup> and 16<sup>th</sup>**, probably to visit Nant yr Eira and Nant Iago. More details will be emailed to members nearer the date.

Details of both meets will be placed on the Members' Area of the WMS Website in due course – see Chairman's Message on p.38

#### SAD NEWS

#### CRIS EBBS

Members may remember Cris, who died in late 2022, as a member of WMS, although he was more active in the North Wales Caving Club and subsequently the Grosvenor Caving Club, and explored caves and mines, mainly in North East Wales, for many years.

#### JOHN ALDER

The Welsh Mines Society have lost another member with the passing of John on 16th April 2023

I first met John during a WMS meet at Fron Boeth and we instantly got on famously. I was to spend many happy and enjoyable trips with him over the following years.

Under the guidance of Adrian Barrell and Kellow's Tours we used to meet at least twice - sometimes three times a year. Our major interest was the slate quarries of Wales. Mostly we had a group of around eight. Our days were spent exploring the quarries and evenings enjoying the company amidst much laughter.

John was a great character, always full of enthusiasm. He would be willing to help anyone and I will remember, with fondness, our happy times together. He had a wonderful strong Brummie accent and I spent many hours teasing him - he took it all in good heart - triffic!

John has left behind his lovely wife of 56 years, Daveleen, and she will have so very many memories to treasure.

John A. Knight

# CORRESPONDENCE

### Hi Raymond

You may be interested in the photo below and possibly be able to use it for the Newsletter should you think it appropriate.

It's a block of jasper (possibly the 11 ton block sent to London in 1905) on a wagon behind a road locomotive (traction engine) in the Maes at Pwllheli. There's a driver on the engine and a brakesman on the wagon. The poles either side of the block seem to be being used to tension the chains by twisting them with the poles then tying the poles to keep the chains in tension. Hanging underneath the wagon is what I think is a shoe which is put under a wagon wheel to stop it turning and so provide extra braking. With regard to the two men on the left of the photo, I suspect the right-hand one of the pair in knee-length leather gaiters might be the quarry manager — he does look somewhat proprietorial with regard to the block. Possibly the one on left might be the customer or the shipping agent.

I found the photo on a calendar some years ago and cut it out. I've since found a version of of the photo and some information at:

https://historypoints.org/index.php?page=old-jasper-quarry-near-aberdaron and a cropped version of the photo at:

https://en.plascarmel.cymru/chwarelcarragplas

I've no idea who might claim the copyright of the photo.

**Dave Linton** 

Those of us who were present on the Sunday may have seen a copy of this photo in the Plas Carmel heritage centre. Ed

# **SOCIETY PAGES**

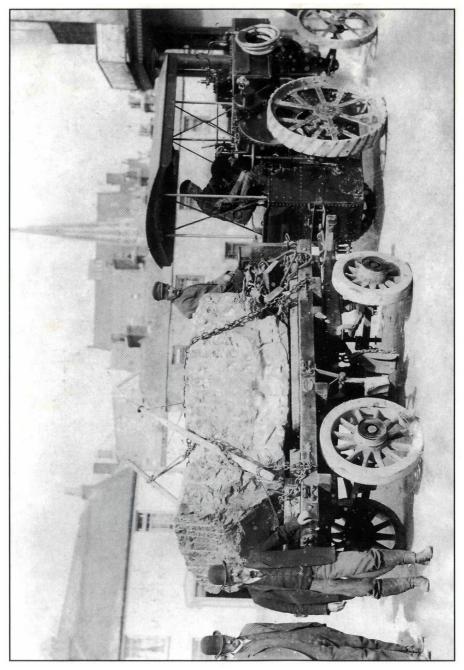
#### NEW MEMBERS

Croeso and welcome to the following new members:

David Gough, Karin Dixon, Nigel Mack, Ewan Taylor

#### SUBSCRIPTIONS

After last year's ructions over "Caver" and "Non Caver" insurance, things have settled down. Many thanks to all of you who had to transfer to "Caver" status or settled for a more sedentary "Armchair" ("Non-Caver") membership. In view of the influx of funds from the Richard Acworth book auction I have decided to keep the subscriptions as last



year. The cost of Newsletter printing and, in particular, the cost of second class post (75p at the last count), will perhaps require action in the future - but we can think about that in the years to come.

As a result the WMS membership and BCA insurance is unchanged for 2024. This is due by January 2024 - please check your subscription status on your Newsletter envelope label. WMS "Armchair" membership(no field trips) with BCA Non-Caver insurance is £11 (includes Newsletter- UK postage)

WMS membership with BCA Caver insurance is £25 (includes Newsletter- UK postage)

**WMS** membership where you have BCA insurance through another club or society is £5 (you only have to pay the BCA insurance premium once). (Includes Newsletter - UK postage.)

WMS Newsletter only subscription is £5 - (Newsletter and UK postage)

If you neglected to pay for previous years then please add an extra £5 to cover each of the unpaid years.

As always your current subscription status is shown on your Newsletter envelope label. If it is highlighted in fluorescent colour it means payment is due. Cheques (payable to Welsh Mines Society) should be sent to David Roe, 20, Lutterburn Street, Ugborough, Ivybridge, Devon PL21 0NG.

BACS transfers can be made to Welsh Mines Society, Account No. 25689160 Sort Code 30 94 58

but *please*, *please*, ensure you identify your payment adequately and make only one person's subscription per BACS transfer please! A confirmation text to *davidroeqsa@gmail.com*\_would also be welcome.

# CHANGE OF MEMBERS' AND SUBSCRIBERS' CONTACT DETAILS

Daveleen Alder email address

Mike Davies change of postal address

I have previously highlighted a minor but tricky conundrum that we have with Data Protection. As a result, for the time being if you need information about a fellow WMS member/subscriber (for example you have lost their phone number, or their email address has changed) please contact David Roe at **davidroeqsa@gmail.com** who will ensure that the information is provided to you with the appropriate consent.

#### MEMBERS' EMAIL ADDRESSES

The email is a wonderful way of quickly communicating with the many members of the WMS and I seem to be settled on around six email updates in a year. However there are around 10% of WMS members who have, for whatever reason, not supplied an email address. I always feel guilty when I send out an email update that I am not

communication with these members (the cost and administration time is forbidding) - so if you are currently not receiving the email updates but wish to receive future email please let me know.

#### MESSAGE FROM THE CHAIRMAN

Hello everyone,

Wow, Covid and those lockdowns seem an age ago now, and it was really great to actually meet in person back in the Spring and to chat face to face and catch up. The two Zoom events we held in 2021 and 2022 were, in my opinion, very successful, and thanks to Jo for organising the technical side of these. We had some superb talks and presentations along with insight into members' recent and current research, and I thank everyone who contributed to these, we all learned a lot. These also gave those of you for whom Wales is too far to travel, the opportunity to join us, which I'm sure was appreciated.

We have considered using Zoom again during the Spring Meet so that those of you who are a very long way from Wales can join in. However, Jo cannot cook the buffet and deal with the technologies of hosting the Meet to you at the same time! So if there is anyone out there who is a whiz with technology and would be willing to run a live Zoom link during our Spring meets, do please let me know!

I am pleased to announce that we now have a new look to the WMS website. This can be found at *www.welshminessociety.org*. Do go and have a look! I must say a special thank you to Mike Munro for running our website for us for so many years. Mike, you deserve a well-earned rest!

You will see we now have a gallery on the new website, which are all my own photographs at present. If anyone has any photos they would like to share for our gallery, do please send them to me. They can be of anything relevant to our Meets, be that underground, overground, photos of us wandering aimlessly across rain drenched hillsides, funny photos, etc. I look forward to receiving these. You may also notice that there is now a Members Section which is password protected (the password will be sent to you in due course); more detailed information regarding the Field Meets will be placed here along with anything else for 'Members only'.

We have had super Meets this year, and unusually for the WMS we had some lovely weather. The trips on the Llyn Peninsula were thoroughly enjoyable and other than one brief downpour, we were baked in sunshine, finishing the weekend relaxing on the beach! Again in Corris and Aberllefenni we saw sunshine and were thankful to be underground in the cool!

If you would like to organise a weekend Meet or want to suggest somewhere you think we should visit please do get in touch.

All the best

Neil Culross

The editor welcomes contributions, whether long articles or short news items, ideally by email in A5 portrait format (to editor@welshmines.org). When items include illustrations, these should be supplied as *separate* jpeg files rather than in the body of the contribution – detailed information on submission requirements can be found at <a href="http://www.hendrecoed.org.uk/wms/misc/notes\_for\_contributors.pdf">http://www.hendrecoed.org.uk/wms/misc/notes\_for\_contributors.pdf</a>

#### WMS SWEATSHIRTS AND T-SHIRTS

Please contact Daveleen Alder for details: 43 Rowlands Crescent, Solihull, West Midlands, B91 2JE

Phone: 0121 711 1049 (answerphone) or email daveleen.alder@gmail.com (PLEASE NOTE NEW EMAIL ADDRESS)

#### WELSH MINES SOCIETY

#### Chairman:

NEIL CULROSS "Tan y Neuadd", Cwmcamlais, Aberhonddu / Brecon, LD3 8TE. Secretary / Treasurer:

DAVID ROE 20 Lutterburn Street, Ugborough, Ivybridge, Devon PL21 0NG Editor:

RAYMOND GRIFFITHS "Bryngolau", Manorowen, Fishguard / Abergwaun SA65 9QB

#### CHANGES TO CONTACT DETAILS

Please let David Roe *davidroeqsa@gmail.com* (postal address below) know of any changes to your postal or email address, phone number or interests so that his records can be kept up to date.

This particularly applies to your email address, which is the easiest and cheapest way of contacting you

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**Front Cover Photo**: The mill at Red Dragon, Dinas Mawddwy, with the round base of the Perkes' machine.

Rear Cover: Preparing to enter Braich Goch slate mine on the Autumn Meet.

