



Welsh Mines Society

(Member of the National Association of Mining History Organisations)

NEWSLETTER 48

April 2003

Editorial Thoughts

1. It's official, we're a 'dot Org' ! For those who're aren't quite so familiar with internet speak, let me explain. I've registered the 'domain name' **WelshMines.Org** for the Society - 'Org' representing 'Organisation', just in case you thought it was short for something else ! So to get to the WMS webpages, although they are still located on my own web space, they are immediately and more simply accessed by entering **<http://www.welshmines.org>** in the address field on your web browser. (I'm afraid anything with the initials WMS was no longer available - standing for Web Management Systems, and the likes, so they were probably snapped up several years ago.)

Don't forget to subscribe to the new WMS e-mail discussion group, set up for the exclusive use of you, the WMS membership. There is also a facility for the posting of photos (such as the ones you took on the last WMS meet !) and other files which all members can then share, plus links to members own web sites and others of interest – Visit the WMS website for instructions on how to sign up.

As always, thanks to those 'stalwarts' who have contributed to this little publication – your hard work is much appreciated by all. (Note that due to space constraints, some material will be carried over to the October N/L.)

Mike Munro & BD

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Events - Dates for Your Diary

(Note that details of forthcoming WMS meets are always posted on the WMS web pages as soon as they are confirmed - URL below.)

2. WMSoc. 2003 Programme

Summer Field Meet - Weekend 21st - 22nd June. Location; North Pembrokeshire - Coal & Slate. Organiser; **Peter Cloughton** Tel. (01437) 532 578
or E-mail **P.F.Cloughton@exeter.ac.uk** Headquarters (Saturday evening meal and accommodation) **Gellifawr Hotel**, Pontfaen, Nr. Fishguard, Pembro. SA65 9TX; Tel. (01239) 820 343, Fax. (01239) 820128, internet: **<http://www.gellifawr.co.uk>** - located

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www.welshmines.org

7 miles east of Fishguard. From New Inn (junction B4329 and B4313) follow the B4313 towards Fishguard for one mile, take the first turning right (signed Cwm Gwaun), after a half mile take the next right (signed Gellifawr Hotel) and follow that road for two miles to the hotel. Book accommodation directly with the hotel stating you are with the Welsh Mines Society - recommend you book early. There is a camping field at the hotel, accommodation in the hotel (7 double rooms) and adjoining cottages (up to 35 people in various combinations). Other bed and breakfast accommodation is available locally - details on request.

Saturday 21st June - Meet at **11:00 a.m.** at the **Victoria Hall** carpark in **Roch** (*Note change of venue*) - behind the Victoria Inn, opposite the school, **NGR SM 8715 2145**. Bring a packed lunch. Newgale coalfield; mining from the late medieval to the early 20th century, with local expertise on hand to explain the development of this small outlier at the extreme north-west of the main Pembrokeshire coalfield.

Saturday Evening - Dinner 6.30 for 7.00 p.m at the **Gellifawr Hotel**. Prices between £13.50 & £14.50 per head depending upon main course selected - menu enclosed with this Newsletter. *Please make your selections ASAP (by 14th June at the latest) and return to Peter Cloughton.*

Sunday 22nd June - Meet at **10:30 a.m.** at the carpark in **Rosebush**. (Turn left in front of the Old Post Office Restaurant.) **NGR SN 0750 2945**. Morning visit to Rosebush and Bellstone Quarries; 19th century slate working. (Field notes for these quarries can be viewed at <http://www.exeter.ac.uk/~pfclaugh/mhinf/slate.htm>) Lunch available at the cafe in the village if required. In the afternoon there will be the option of a visit to the quarries and associated harbour at Porthgain, 9 miles west of Fishguard, with a good pub to hand for those wishing to stay for an evening meal.

Autumn Field Meet - Weekend 20th - 21st September. Location; **Shropshire Lead Mines, Collieries, and Smelting Works.** Organisers; **George Hall**, Tel./Fax. (01584) 877 521 & **Dr. Ivor Brown**, Tel. (01924) 257 137. Headquarters (Saturday evening meal and accommodation) **Dolforwyn Hall Hotel**, Abermule, Montgomery, Powys, SY15 6JG. Tel. (01686) 630 221, Fax. (01686) 630 360, Email : enquiries@dolforwyn.co.uk Bed and breakfast at Dolforwyn Hall is rather more than we usually pay, £39.50 per night single, £60 double, but lower rates are available for more than one night.

Caravans and tents are welcome at the Abermule Hotel, Abermule, Montgomery, less than a mile from Dolforwyn Hall. They also provide b. & b. Tel. and Fax. (01686) 630 676.

Bed and breakfast (ca. £20 to £21) near to Abermule is available at :
 Mrs. K. Bason, Lower Broughton, Montgomery : Tel. (01588) 638 393.
 Mrs. G. Bright, Little Brompton Farm, Montgomery : Tel. (01686) 668 371.
 Mrs. J. Jones, Trefnant Hall, Berriew : Tel. (01686) 640 262.
 Mr. B. Lawson, Hendomen Farmhouse, Montgomery : Tel. (01686) 668 004.
 Railway Inn, Forden, Powys : Tel. (01938) 580 237.
 Mrs. E. Scott, Talyllyn, Berriew : Tel. (01686) 640 753.

Please remember, you book your own accommodation. G.W.H. has more addresses available if required.

Saturday, 20th September Leader; Dr. Ivor Brown - Meet at **10:30 a.m.** at the Nag's Head, which can be found on the A488, midway between Pontesford and Pontesbury, at **NGR SJ 405 061** They open at 10 a.m. Breakfast, drinks, and lunches will be available.

Morning : Visit Pontesford Collieries Engine Houses and Smelting Works. Move vehicles to Snailbeach Village Hall car park at ca. 1:00 p.m.

Afternoon : Walk round Snailbeach mine and Lords Hill area.

There will be two easy underground trips (plus a more technical SRT trip - see below) at Snailbeach Mine, and several of the old mine buildings will be open for inspection. A collection will be made for Trust funds. If time permits walk along old railway line to Crows Nest and Central Snailbeach, and/or drive to Pennerley and Bog Mines.

Saturday Evening - Dinner, 6.30 for 7.00 p.m. at the **Dolforwyn Hall Hotel**, £12.95 per head – menu enclosed with this Newsletter. *(Please make your selections and advise G.W.Hall of your choice at least ten days in advance - earlier if possible, as if we make sufficient bookings in time we shall have the dining room to ourselves. Payment beforehand not required, but have it ready on the night.)*

After dinner there will be the usual informal meeting, and a projector and screen will be available if anyone wishes to show some slides.

Sunday, 21st September Leader; G.W. Hall

Morning : Park in West Grit engine-house field at **10:30 a.m.**, by the A488, at **NGR SO 319 980**, by courtesy of Mr. J. Delves. Walk over West, East, and Old Grit mines, by courtesy of Messrs. Delves and M. Pope.

Bar meals and drinks should be available at the Miners' Arms, Priestweston, 1½ miles west of West Grit Mine.

Afternoon : Meet on old dumps of East Roman Gravels mine, on the east side of the A488, **NGR SJ 336 004**, by courtesy of Mr. A. Gough. Walk over East Roman Gravels (Wood Sett) and Roman Gravels.

Further underground trips:

Steve Holding, chairman of the Shropshire Caving and Mining Club, has kindly offered to lead more extensive and difficult underground trips, requiring previous SRT experience as follows:

Saturday; The Forty Yard level in Snailbeach, (~3-4 hr trip) plus a separate surface look around for those involved in the SRT trip.

Sunday; Huglith - One 'major' SRT trip (again ~3-4 hr trip) plus the opportunity to go to less visited locations involving shorter SRT incursions into the mine.

Steve can be contacted on Tel.: (01952) 417 483 or by email **sholding@rapra.net** for further details.

Other Societies & Organisations

If you're aware of events or trips which other organisations are holding or making to/into Welsh mines, please let me know and I'll include them in the next Newsletter.

Important Announcements

3. Obituary - We regret that we have to report the death of Michael Kneebone of Isleworth who was a long time member of this Society.

4. Welsh Mines Society / Welsh Mines Preservation Trust Merger ?

Graham Levins has offered a few thoughts, (see below), as a member of both the WMS and WMPT, *(and not in his role as a director of the WMPT, hence his comments do not reflect*

the views of the Trust or its officers) on why this may be a good idea. I realise that it's likely to be a contentious subject, so it's offered here for general discussion, both at the next meet(s) and on-line on the WMS e-mail discussion group. As always, if you'd like to pen down your thoughts for publishing in the next newsletter, then please do.

"I have felt for many years that this would be a very positive move. The WMS suffers from its relaxed structure, having no constitution makes it very hard and sometimes impossible for it to get involved in things, e.g. The Mining Journal Digitisation Project. The big problem though is that the majority of members seem to like it this way. I must admit to a certain extent, I do as well. The WMPT has a defined structure, it is registered at Companies House as a company, it is registered with the Charities Commission as a Charitable Trust, it has a constitution, it has a full set of Officers; Chairman, Secretary and six Trustees and it holds two formal meetings plus an AGM each year. It has carried out projects in the past all over Wales, and is at present involved in the restoration of the Glyn Pits, having obtained six figure funding from the Heritage Lottery Fund. Unfortunately this is almost as far as it goes membership is falling, this year membership has fallen from almost 70 to just under 40 - due to the increase in subs because of the hike in insurance costs.

So a merger of the WMS & WMPT would be a very good thing, the WMS has the members but no structure, and the WMPT has the structure but many fewer members. I feel that if the two bodies merged to form one Society (why not call it the 'Welsh Mines Trust'), things could continue much as they do now, there would still be the relaxed field trip weekends, but the merged society would have an official arm, able to do what the WMPT does now backed by having a constitution etc. There would also be a bonus for those that are members of both, they would only have to pay one lot of membership subs and insurance."

If this looks like it may take favour, the next step would be to take it to a poll, with ballot papers issued to members of both societies – watch this space !

5. Welsh Mines Society sweatshirts - John & Daveleen Alder would like members to know that there are a few Sweatshirts and T-shirts left over from NAMHO 2002 - Aberystwyth, (white logo on black): Sweatshirts - £16.00; T-shirts - £12.00, inc. p+p.

Also, W.M.Soc.Sweatshirts, (gold logo on navy blue), £16.00, inc. p+p.

Please place orders with Daveleen Alder, 43 Rowlands Crescent, Solihull, West Midlands, B91 2JE, Tel. (0121) 711 1049, or by e-mail to aggie@1ststoponline.co.uk

6. WMS-NAMHO Representative – We're still looking for a willing body to fulfil this role, previously held by Alan Williams (ref. Item 6, last N/L). If you think you can spare a couple of days each year to support our Society, please contact Alan who will be able to provide further details of this post;

E-mail alan.williams@britishlibrary.net or Tel. (01244) 370 662 (evenings) If he's not there, please leave a message and your number and he'll ring you back.

New Members

7. The Welsh Mines Society says '**a croeso**' (hello and welcome) to the following new members:

Mr G. Spink	10 Cardinal Avenue, St Budeaux, Plymouth, PL5 1UW
Mr A. Browning	52a Arabin Road, Brockley, London, SE4 2SE
Mr W.M. Davies	5 Washford Road, Meole Village, Shrewsbury, SY3 9HR
Mr T. Marynicz	Caer Delyn, Dolgran, Carmarthenshire, SA39 9BX

Field Reports

8. **Vigra & Clogau Mines** – WMS Summer Meet, 8th-9th June 2002.

The group assembled on Saturday morning at the bridge in Bontddu, under a threatening sky, ready to be led by David Seabourne, with additional commentary from George Hall. We set off on a path up the valley of the Hirgwm and soon came to the site of Vigra mill, including a water wheel pit, the drive, to pumps in the mine ~400 feet higher up hillside, possibly being by flat-rods. There are several sections of stone walls present at the mill site. We moved on under steady drizzle to the copper mine site above, which was said to be active c1850, but gold was later found in the dumps so gold recovery equipment was installed. By 1900 it had become the largest gold mine of its kind up to that date and we were told that many different types of machinery were tried there. We noted one or two pieces of tramway rail, studs, etc, here. Moving on to the incline the party passed the site of a water wheel pit, later supplanted by a turbine c1900. We walked past remains of the drumhouse walls, then noted a further incline to a higher level (Jenny's Adit). George Hall opined that it dates from c1860 but was never used, and no copper was found. One drumhouse wall stands tall, studs in situ on top. The other wall has collapsed beneath the undergrowth. The remains of a handbrake were found on the incline.

Next came a well-made cart road leading up to the Vigra mine. On the dressing floor we found two bucking stones, blocks of hard stone where depressions had been formed by the wearing action of rock being crushed manually. Lunch was taken here.

Some of the group stayed behind with Dave Seabourne to explore the workings above the mill site, while the remainder descended the hillside to the valley bottom, partly by the same track, then up the other side of the valley, with Harold Morris leading us for the afternoon expedition. We passed a gated adit (Ty'n-y-Cornel Adit, Clogau Mine) where Jubilee track remained in situ and continued upwards to the dumps at the mouth of the adit to St. David's (or Clogau 'No.1 Mine'). Amongst the remains of buildings, (next to the open cut above the adit), were a forge with the date 1909 carved on its fallen entrance lintel, an upturned rubbish wagon (down by the dumps) and several other ruins. Some of the group continued around the hillside to view 'Old Clogau', where the remains of the winding engine house were found to have 'DP 1967', 'DR' & '1907' carved into the stonework. This engine had wound from the 'Whim-shaft' (and also from the workings behind - see Item 21) which still retains a delightful walled whim circle next to it. After passing the nearby dumps and a flooded adit, we descended the hill-side back to the road, which we left at 'Pont Hirgwm' taking the footpath back towards Bontddu. Walking on alongside the stream the party viewed a fine example of an 'Arastra'. The individual stones were accurately fitted together. We also saw two large stone blocks, one each side of the Arastra, which were presumably used for crushing. We continued along, above the entrance to the Llechfraith Adit, which showed little sign of activity (Cambrian Goldfields currently possess the Crown License for this Mine), across Vigra Bridge and back to Bontddu, having covered a considerable amount of ground.

After an excellent dinner at the Fairbourne Hotel we enjoyed two slide presentations. Harold spoke about Clogau and Chris Williams showed some photographs of underground scenes in Cornish mines as originally taken by J.C.Burrow in the late 1800, and published 1893 as 'Mongst Mines and Miners'. We were also treated to a short talk by Bob Gunn, a

mining engineer, who spoke about some of the work in the gold mines of the area in which he has been involved in.

Following a damp dawn on Sunday, the party assembled in steady drizzle in the hills above Ganllwyd for a guided walk to Cefn Coch gold mine led by John Latham of the National Trust. A virulent strain of Welsh midges joined us here for a hearty breakfast off those who forgot to bring their insect repellent. There are substantial and impressive remains of the mill situated on a steep sloping hillside, at NGR SH 7170 2345. We admired the conservation work already carried out, noting the safe built into one wall to store the gold as it was won from the rock. The ore chutes were fed via a tramway, whose course we followed to the mine site, where an open adit, and others further up the hillside provided an opportunity for exploration by some. From there we walked down an incline, and discovered that it was laid on a curve for the last 15 yards or so. There was much speculation on how it could have worked - was it ever used and if so how ? Answers on a postcard please !

Later, and further down the hillside, (at NGR SH 7215 2385), we looked at another Arastra, this one made from larger segments but in more ruinous condition. Lunch was taken and followed by a walk to Glasdir copper mine. By now the weather had cleared and we walked past an inviting sign which said 'Caution - old industrial works' as the sun shone. We viewed the site of a massive ore body, now an open pit, much overgrown, and later climbed up to the rim of the pit on the opposite side where the view is very impressive. Retracing our steps back to the river(NGR SH 7425 2265) we walked onward along the course of the tramway to the processing plant ruins. Built on a very steep slope, virtually a cliff, the several floors looked like shelves hanging on to the cliff. The party, now a group of half a dozen or so, scrambled down to a hydro power station still in its corrugated iron shed. Two Pelton wheel rotors and the casing of a generator were noted - the copper windings from the latter having long gone ! Harold regaled us with stories of how the generator once supplied electricity to the village of Llanfachreth.

So ended yet another enjoyable and instructive weekend meet, reflecting much credit on the people who led the walks and organised the events.

Report by Alan Holmes (inc' additions by MPM)

9. Trip to the 'Friar's Coat' – 'NAMHO 2002', 7th-8th July 2002.

One of the more adventurous field excursions over the NAMHO weekend was an expedition to 'Friar's Coat' or Tyllau Mwn high up on the slopes of Aran Fawddwy. Many years ago I had explored the mines of this area with the late Tom Jones of Llan Mawddwy who had been a great inspiration as well as an invaluable source of information. Since his death I often wondered what had happened to his farm and family in these hard times and a chance meeting on the day provided welcome news. While we were donning our boots in the car park at Cowarch we were approached by the Park Warden who introduced himself as Joe Jones. Joe and his brother have returned to the family farm and Joe delighted in our enthusiasm for obscure mines located at little travelled parts of the National Park. Unwittingly he gave us the Industrial Archaeological conundrum of the day – for what would be a WMS field trip with out a conundrum – preferably one that is unsolvable and open to endless debate ? Had we noted the small ruined building around a third of the way up the precipitous face to the south of the path and was it – despite its inaccessibility a blacksmith's smithy ? We shall return to this later.

The small party set off up the steep footpath to the top of the pass – we may have been few in numbers but seemed to be multi-skilled having experts in water power, Welsh place names, WW2 aeroplane crash sites, geological ecology and Victorian fox traps.

Emerging at the top of the pass it is best to follow the summit footpath for about 500 metres before crossing the fence and striking out due north for the mine that is (weather permitting) visible on the edge of the low escarpment. In July we were exceedingly lucky with the weather and the ground conditions. Be warned - this can be an evil place in bad conditions.

The workings are a complex series of adits driven into the iron vein that can be followed in a northerly direction, although a compass is useless here because of the magnetite lode. At one point the compass needle rotated by 360 degrees in less than 10 metres. If one climbs to the top of the escarpment just above the adits there are a series of very old mounds, perhaps from trenching, that seem to predate the other workings and of course one could fantasise that these were the Josephine Baker workings of 1790.

An interesting change has taken place between the 1983 1:25,000 map (where Tyllau Mwn is marked as a single site with the mysterious causeway extending 150 metres North West) and the 1998 map (which does not mark the causeway but shows a further group of levels around 300 metres to the North). I have missed these northern workings on previous visits, although it is clear that David Bick found them in 1954. They are quite extensive and relatively recent. There is evidence of shot holes that is not surprising when one attempts to hammer this extremely hard rock. A proper survey of the site is called for – any volunteers ?

On returning to the southern workings a lively debate ensued about the causeway – if it is a causeway why does it end in the midst of a bog with no sign of a connecting track ? Or was it an attempt at a dam, in which case it was showing an optimism unsupported by the water catchment area. A Celtic message to the gods or a little known V1 launch site seems more likely. Invigorated by the summer sunshine the party then climbed Glasgwm. We descended an obscene EU funded track that has been arrogantly bulldozed down the side of the hill and desecrates the National Park for little gain. This route gives an opportunity to view the “Blackmith’s” mentioned before. This is a strange place as it is perched in an inaccessible location on a fairly precipitous hillside. On the cliff above can be seen a very faint zigzag to the summit but why anyone should wish to take such a strenuous route to such a barren location is a mystery. Needless to say the last hour of a fairly weary descent were occupied by speculation – a goat herding milking point, horse shoeing station, peat digging, hermitage or last redoubt ? It was decided the elucidation of this would be a project for 2003.

David Roe

10. Wigpool Iron Mine – WMS Autumn Meet, 22nd September 2002.

After the exertions of the Saturday, only three members felt fit enough to join Mole for the strenuous exploration of the Wigpool Iron Mine (by courtesy of Clearwell Caves, the owners). The iron deposits here were within the Crease Limestone band, which reaches the surface to the east and north-east of the coalfields, the presumed source of the iron before it migrated downwards. On the way to our parking spot on Wigpool Common, Mole pointed out the filled-in shaft of the relatively modern mine. With that access blocked, we had to enter via old workings hidden amidst trees and brambles. A quick search revealed what looked like a steel mesh rabbit hutch half buried in the hillside. Mole removed the padlock and invited us to venture into Meeks Hole. Not sure what I was letting myself in for, I wriggled in feet first and slithered down the 30° slope, nose almost touching the roof, until a

Wigpool Iron Mine



more spacious small chamber was reached where I could at least sit upright. The others soon caught up and we were then able to scramble downwards along the bed of the limestone through a long succession of small, irregularly shaped chambers, with other cavities going off to the sides, all of a monotone red-brown colour. It was difficult to date these workings. No structure was obvious to me, no attempt at pillar-and-stall workings, just cavities wherever the iron ore was worth exploiting. There were no shot holes in the walls, only occasional pick marks. That suggested we were looking at the pre-1700 period, but Tudor or Iron Age or somewhere in-between ? With no artefacts visible it was impossible to tell, but the impression was one of great antiquity.

Still descending, we came quite suddenly to what Mole called “the pretties”, chambers where the roof was festooned with small stalactites and curtains, the whiteness of these contrasting starkly with the brown walls we had got used to. The floors too had their dumpier stalagmites and a carpeting of slippery calcite flowstone.

A corridor had been marked out with tape to prevent clumsy people like me from putting iron-stained hands on these unspoilt jewels ! Further down we also came across good examples of rock pearls, where calcite-rich water had dripped onto pieces of grit, coating them (as the water moved them around) with successive layers of calcite. In another place, there was a small pool of water with a layer of calcite floating on the surface like ice, a strange phenomenon as it is much denser than water. Also, although most of the chambers we went through had been hewn by hand, we saw some evidence of the action of phreatic water on the limestone, a cavity in the roof large enough to put our heads into and other areas where the roof had smooth water-worn curves. At one point, we went up into a cavern where a ring of stones about the size of a bath formed a man-made reservoir to catch water dripping in from the roof. Why go to that trouble when water was dribbling through the rock nearby over an area of flowstone ? Perhaps the answer was that this little reservoir contained no sign of calcite, the miners having apparently found a supply of pure clean water.

Deeper still, some shot holes started to appear and then quite suddenly we dropped down into the broad, high passages of the later mine. A points lever and a metal plate, possibly a ‘stricker plate’ for turning wagons, indicated the former presence of rail tracks in these tunnels and we could see signs of wooden sleepers too. In places, traces remained of drainage launders and much-eroded wooden props. We were able to walk up to the filled-in shaft of No.2 Pit (Columbus Pit), the top of which we had seen on the surface. Because of the relatively dry spell of weather, we were able to venture down into areas often under water, not only crossing a wooden bridge, but able to get below it and visit an internal shaft in what seemed, after the confined route we had come in by, a vast hall cut into the rock. By now, we were ankle-deep in water and the time had come to return to the surface, passing the remains of a small haulage winch as we did so.

The return was via a different, steeper route. Again we went through a succession of chambers with a bewildering array of different routes to choose from. The steepness and the slipperiness of the mud-covered flowstone combined with the low headroom made this a particularly tiring ascent, not helped by a short vertical section. As we neared the surface, the passage closed in once again to a tight crawl and it was a great relief to suddenly see daylight seeping in above. The exit was via a climbing shaft with a grille on top (Steam Hole) and we clambered awkwardly out into the forest again, tired, but glad we had made the effort to visit these historic workings.

After cleaning up, we made a brief detour to visit a short-lived gold mining venture nearby, the Bailey Level (Clearwell Caves). There was not a lot to see, but I was left wondering from where the gold could have come originally. With thanks to Mole for a most interesting afternoon, we then headed for home and yes, Mole, my thighs did ache for days afterwards !

Roger Bird

11. WMS Winter Meet - 23rd March 2003

George and Nheng Hall offered their home to all, providing a venue for a welcome social meet, attended by some 30 members, to help us through the darker months. As it turned out, the weather was especially kind, allowing lunch to be taken on the lawns for those wishing to benefit from a sunny clear sky and a pleasant warm breeze.

In the afternoon Dr. Gwynfor Pierce Jones, heightened the awareness of recent 'developments' regarding loss of access to the Dorothea Engine House, Nantlle, by the landowner, which has resulted in restoration grants being withdrawn. (See next Item for further details in what you can do to help reverse this decision.) The Cornish beam engine and house were then ably described while presenting slides taken by Harold Morris.

The 'meet' drew to an all too soon close, and we offer our thanks to George and Nheng for their hospitality.

Bronwen Dog 🐾

News & Developments

12. 'Slate Inclined'

Dorothea Slate Quarry - Worrying news has reached my ears that the grant to help preserve the Historic Cornish Beam Engine Pump House has been withdrawn. This action is due to the landowner refusing permission to access the site ! A number of parties (me included) have written expressing their concern. If you wish to add your views please write direct to - The Director of Planning, Gwynedd County Council, Caernarfon, Gwynedd.

Cwm Machno Slate Quarry - I understand that an adit driven by a Hunter boring machine has been recently discovered. This is similar to those already identified at Cooke's level (Maenofferen Slate Quarry) and at Abercwmeiddaw Slate Quarry. If visiting, beware underground, as it is very unstable.

South Dorothea Slate Quarry - Removal of waste from the tips for hardcore has now ceased.

Llechwedd Slate Quarry - Operations were stopped at the quarry 'due to overhang' in the working pit. I understand this was during December into January and that the Company were looking to another site in the quarry to resume work. I am not aware of the current situation.

John A. Knight

13. Ceredigion Local History Forum. 'The Welsh Mines Society and the Welsh Mines Preservation Trust had a joint stand at the Ceredigion Local History Forum at Lampeter on Saturday, April 12th. Peter Claughton arranged this, and set up the display, using materials supplied by Graham Levins, Mike Munro and Simon Timberlake. George and Nheng Hall turned up in support, but Peter did all the work. Between us we spoke to quite a number of people during the day, and handed out literature, and we hope we managed to create a little interest, and may even pick up a new member or two.'

George Hall

14. Cwmystwyth Mine. There have been a few developments here over the past six months including a long term repair [*see next Item for details*] to the running ground behind the portal with a length of 28 inch diameter heavy duty plastic pipe slid through the old 'Hudson' tram wagon and sand-bagged in place. This old tram was placed under the fall in April 1970. Significant archaeological finds at Pengeulan have further stifled the Council's ill-conceived reclamation plans. I have been taking advantage of the spring weather by producing a 'current state' photographic archive and to update many of the maps, plans and sections which I surveyed in the 1970s and '80s. Ground movement in the 1990s has revealed some new workings off Level Fawr and buried some others. I am quite concerned about the poor state of the timbers near the Skipway / Incline in Level Fawr. Some timbers have already failed, it will not be long before they all yield and it is possible that the workings accessed by way of the Skipway / Incline will be lost, including the 'Coffin Level' and the Kingside Adit, unless some forward planning takes place. However, I have a contingency plan which may precipitate another 'call for volunteers' over the summer months.

Simon J.S. Hughes

15. Cwmystwyth Mine – 'Level Fawr'

"On Monday 20th January, I heard a report that the entrance to Level Fawr at Cwmystwyth in Mid-Wales had collapsed (the report was from one of the two guilty persons) and so I posted the news to several groups (uk.rec.caving, uk.rec.subterranea and the Mining History list). That Thursday I caught the Post bus down to the valley to take a look at the damage for myself.

The entrance to the mine adit, had, I discovered, collapsed immediately behind the mine cart that was itself supporting an old collapse, at the transition from stone-lined passage to cut rock face. There was also a small dip visible in the scree slopes above the entrance, approximately above the collapse. Having seen the site and being very aware of the blizzard that was sweeping down the valley I returned home to consider how to reopen the level.

Over the next few weeks I was contacted by a number of people and a date was set for getting work done - this would be Saturday the 15th of February. On the night of the 14th, some others and myself descended to the valley and began a little preliminary work for the next day - we removed material from beneath the mine cart, for where the new pipe would be going in. This done we returned home to enjoy the rest of the night.

Saturday morning we arrived and began carrying materials and tools up to the adit entrance. Once all the gear was up we continued to excavate the material beneath the cart and we also removed the two horizontal sections of the cart ends - this would prevent the pipe going through so we had no choice. We did however have to do nothing to the mine itself - we simply moved some of the artificial barrier below the cart. With sufficient material removed, a pair managed to get through to the other side of the collapse and began moving material away from here as well. (I should perhaps mention that one of these was one of the ones 'responsible' for the collapse - the other hasn't been seen since !)

With the majority of the passage clear the pipe was offered up and where obstructions were found these were removed. With the pipe now almost in position, all that remained for the installation was the removal of some sections of timber supporting the old collapse. This actually passed without problems, much to my surprise. Some last minute digging and the pipe was inserted, neatly travelling through the cart and past the point of collapse.

With the pipe now in place the job switched to making sure that it stayed there - sandbags full of materials from the dug out section were piled around the pipe along with sections of timber. An amount of cement was also used on the outside edge of the pipe. The job now finished satisfactorily we cleared away our tools and admired a job well done. (The inserted pipe is a 670mm Polypipe "Agritwin" that is approximately 10ft long donated to the mine, with an expected life of 100 years.)

I'd like to thank all the people who turned up to give a hand or observe the proceedings and special thanks to all those who gave of their time and materials to see Level Fawr accessible once again."

A. Barnes - ACC

16. '100 years of floatation' – 'The Australasian Institute of Mining and Metallurgy is organising a conference in Brisbane for June 5th 9th, 2005, to celebrate 100 years of the froth floatation process for mineral separation. From its first use at Broken Hill in Australia, it quickly spread to the US and the rest of the world....'

Mining Magazine (p.95) - Feb 2003

17. Roman And Medieval Hushing Dates.

Work carried out by Simon Timberlake and the Early Mines Research Group at Pen Cerrig y Mwyn (Nantymwyn), Pen Dylife and Craig y Mwyn (Llanrhaidir ym Mochnant) has provided (C14)dates for the abandonment of hushing which would seem to indicate the existence of: a Roman phase of prospection along the top and down the sides of the Pen Cerrig y Mwyn ridge (the quartz vein of the 'Old Vein' or Rodericks Lode), some early square hushing tanks on Pen Dylife just to the east of the Pen y Crocben Roman Fortlet (of Antonine date) which may be of Roman or very early Medieval origin, and a date for the apparent termination of hushing activities at Craig y Mwyn in the late medieval period (15th-16th century). At the latter site there is clearly a much earlier phase of hushing than this, since destroyed by later hydraulicing and the expansion of the opencast. Good abandonment histories within the peat-filled feeder leats and tanks seem to be available, and this site justifies much more work. At Pen Cerrig y Mwyn it is my opinion that the Roman prospectors may well have been looking for gold, and found lead. The Dolaucothi leat systems on Mynydd Mallaen lie less than 10-15 km to the west. The interim report on this work has been written up for the forthcoming NAMHO 2002 volume and Archaeology in Wales. David Bick and WMPT kindly contributed to the cost of C14 dating.

18. Medieval Lead Smelting At Penguelan, Cwmystwyth

Archaeological excavation carried out by the EMRG in Sep 1999, October 2002, and March 2003 has uncovered the remains of an Early Medieval bole smelting site (wind-draughted furnaces) on Banc Tyn ddol nr. Penguelan, a small plateau which lies just to the west of the Nant yr onnen stream and Copa Hill above the valley floor at Cwmystwyth.

Two types of furnace have been identified :

- i. One, a type of walled furnace built directly above turf level of which little evidence remained except the spreads of vitrified rock and an extremely lead-rich glassy slag.
- ii. The other appeared to be a clay-lined pit bole scooped out from the side of one of the gravel ridges, around which a clay-bonded walling had originally been constructed, and which faced the predominant westerly winds, which to our bitter experience buffet this exposed area of up-standing ground with a vengeance at certain times of the year !

The latter furnace seemed to have been re-used (or re-lined) on at least 3 separate occasions. The most interesting feature of it being the canal or tap channel, evidence of which we picked up as much as 8M downslope of the hearth with burnt turf and fragments of melted lead metal runnel still in situ. Currently we have only one C14 date for the whole site, but more are expected. The date which centres on the end 12th century AD would seem to fit well with the period of building activity and expansion of the Cistercian abbey at Strata Florida (the latter was built in 1164, and the re-building of which was completed in 1201 – *Hughes 1981*).

Analysis of the metallurgical products of the hearths is being carried out at the Institute of Archaeology in London (Prof. Thilo Rehren).

Simon Timberlake (Above two articles)

19. Gwynfynydd Gold – Mills and gold extraction.

The remains of the old Gwynfynydd Mill which was destroyed by fire in 1935 has been attracting the attention of what I first thought were Industrial Archaeologists, but then realised were ‘gold hunters’ ! Several holes have been dug on the site, guided by metal detectors, judging by the piles of rusty ironmongery unearthed, and a small furnace erected on site – to drive off the mercury amalgamated with the gold I assume. (I trust they have as yet to obtain a licence from Her Majesty’s Pollution Inspectorate !) I’ve previously found mercury a mile or so down river from the mill while panning for gold, so there’s plenty of it still around !

A short way further up river, the most recent mill, being run by Mark Wheeler, is still very much in operation. He is now stripping off the top six inches of the access road to the mine and mill and is processing that – one assumes that it’s ‘paying’ ! On my previous visit to the mill 10/05/2002, I witnessed gold running off the shaker table, as some of the material from the dumps further up the hill, above the mine buildings, were being run through the mill.

20. Royal Gold – Following on from a query George Hall raised in the last N/L, Item 36, about Clogau gold ever being supplied to Royalty, he now comments :

‘Ivor also told me that when he visited Hugh Edwards, then the lease-holder at Clogau, in the 1960s, Hugh showed him some gold nuggets, and said that part of one had been used to make a wedding ring for the present Queen.’ [*So, perhaps the claim by ‘Clogau Gold of Wales Ltd.’ is true after all ? – Ed’*]

Simon J.S. Hughes adds the following : ‘I thank George for a most accurate portrayal of the use of Welsh gold by the Monarchy. I can confirm that there are indeed many spurious claims being made about Welsh gold in the name of commerce. It is true that 15 years ago, Sir Mark Weinberg presented the Queen with a 1Kg bar of pure Gwynfynydd gold, but I am not aware that it was ever put to any use, or that there is any intent to ever melt it down for jewellery. I am unable to work out why Prince Edward’s wedding ring came from the Prince Edward Mine.’

He continues.... ‘The whole situation has now deteriorated into an absolute scandal with some jewellery containing an undefined ‘hint’ of Welsh gold, whilst the middle of the range contains a reputed 10% Welsh gold. The top end of the market is undoubtedly the 9 and 18 carat range available through Cambrian Goldfields micro-mining operations at Clogau and Prince Edward.’ Simon recommends a visit to their web site – a link can be found on the WMS web pages.

21. Old Clogau – Towards the end of last year, Dave Seabourne reported that he'd taken a look into the stope accessed by the short cross-cut, the entrance to which is, rather strangely, located behind the remains of the engine house at 'Old Clogau' gold mine, NGR SH 678 198. Dave had noted an incline running from a flooded shaft through the stope to the right-hand side of the engine house (when viewed from the horse whim circle). When I visited the site in November 2002, after taking a look into the stope (a short SRT pitch of approx. 30ft) we temporarily removed some loose stones at the top of the incline to satisfy ourselves that the incline had in fact been wound from this point. (The entrance remains firmly covered with large stone slabs resting on some old bridge rail.) It certainly allows entrance of the cross-cut to be more fully understood, which one assumes was just for personnel access.

An item of interest noted while in these workings was a small diameter (2-3" nominal bore) wooden rising main, with metal reinforcing hoops, which rises out of a flooded stope.

22. Environment Agency - Metal Mine Strategy for Wales. With reference to Item 32, last N/L, Peter Cloughton states....

'Simon Hughes comments on the failure to embrace all areas on listed mines whilst missing some altogether. To be fair to the Environment Agency, they have to start somewhere and water quality appears to have been taken as a key criteria. However, as some mines are found not to be a risk in that area, having perhaps been listed using outdated information, then others will be included from nearly 1,500 mines in Wales on the EA database. Consultation on each site to be remedied will take place, and a WMS representative will be included on each working party (with the exception of Parys Mountain where the existing working party will continue in place), as well as on a more general policy level. I will be attending the first of those meetings in March.

As to tourism and the potential of the metal mining in Wales. There is considerable potential for Cultural / Mining Heritage Tourism in Wales, particularly in areas like the Ceredigion Uplands. The mining industry has made a considerable contribution to the economic past of such areas and has a similar impact on the historic landscape - any remedial work carried out by the EA must take that into account. We are not talking about more tourist attractions like Llywernog, not even a visitor centre at Cwmyswyth, but low key interpretation of the mining heritage to inform and attract visitors. There are plenty of people with interests in industrial heritage and even existing passing tourists are attracted by sites like Cwmystwyth although they invariably have no idea what they are. Such visitors provide a potential source of income for the area through an existing or enhanced tourist infrastructure - we are not looking to mass tourism and all the problems that brings to an area.'

Simon Hughes also comments.... 'During the first week of January 2003, it was drawn to my attention that the Bwlchglas Mine was being used for 4WD rallies and that damage was being done to both the mine site and the environment. The matter was investigated and is a lesser problem than occurred at Esgair Fraith or Esgair Llee, but a recent gully was diverting water across the fines dumps and carrying them into the river. When I tried to report this state of affairs to the Environment Agency I was told that it was not in their domain and to try the County Council – who thought that it was the responsibility of the EA. Whilst the EA strategy is a fine document, it is not worth the paper upon which it is written and the Agency appears to be totally toothless on such matters. Bwlchglas does not appear on the EA strategy list.'

23. Mystery Mine in Breckonshire

Imagine my surprise when someone drew my attention to a 'Mine (dis)' on the latest 1:50,000 Ordnance map in the mountains of Mid-Wales which I had never heard of, and neither had George Hall. After 50 years of keeping my eyes open, I could not believe it. What is more, nothing was shown on earlier editions. But in addition, it was near a hill called Y Garth, north of Beulah (NGR SN 926 566). Could this be the long-lost Garth copper mine, returning ore at Swansea in the 18th century, and still defying all attempts to discover ? (See previous N/Ls). Probably not, but it was worth a visit. In the event, it turned out to be a slate trial with dumps and an adit in a kind of quarry, (see photo right) which it appeared could be readily drained to permit an easier access. Can our slate enthusiasts throw any light on the matter ?

David Bick

[This sounds like it could be the quarry named as 'Alltyddinas' by A.J. Richards on p.229 of his 'Gazetteer of the Welsh Slate Industry' – MPM]



David Bick at the 'Mystery Mine' in Breckonshire

24. Mystery Mines in Snowdonia

Browsing through the wonderful Old Series 1 inch Ordnance maps of Wales the other day, I came across two new sites, at least to me. 'Lead mine' in a remote valley south of Penmachno, NGR circa SH 794 475. The land is now afforested but a track goes there. The geological map shows a lode running from the mine SSW for 2 miles over wild mountains as far as the B4407 road, east of Pont ar Gonwy. Harold Morris says the shaft is filled in; 6 inch maps [*Caernarvonshire Sheet XXX NW*] shows old shafts and levels at NGR's SH 793 476 & SH 789 468.

David Bick

25. Clogau Gold Mine – Further to the report in the last N/L, Item 23, our *Dolgellau Correspondent* reports that the mill building, across the Afon Hircwm from the Llechfraith Adit, have been dismantled and the milling equipment removed – this building isn't owned by Cambrian Goldfields Ltd., who possess an Exploration Licence for the evaluation of Clogau Mine.

26. Sir Clement Le Neve Foster – Memorial Plaque

Peter Challis informs us that a plaque has now been erected at the former family home of Clement Le Neve Foster, now a much enlarged hotel, Min y Don Hotel, which can be found on North Parade, Llandudno. Thanks are due to Conwy Borough Council's generous provision of funding to enable the plaque to be cast and erected as part of their 'Town Trail', and especially to Janet Johnson, 'Strategic Tourist Development Officer', for her support and help during the negotiations to mark the life of this remarkable man.

Peter has sent me a photograph of the plaque in its location, but I'm afraid that the reproductive processes used for this newsletter would have rendered the text unreadable so it is reproduced below (the second part of the text is also in Welsh on the plaque). The photo has however been uploaded to the WMS webpages – a link to it can be found towards the bottom of the 'Publications' page.

Syr Clement Le Neve Foster FRS 1841-1904
 Geological and Mining Engineer:
 HM Government's Chief Inspector of Mines

Le Neve Foster was instrumental in reducing the appalling death rate in the metal and slate mines of Cornwall and Wales. "No man in this country has rendered more conspicuous service to metalliferous mining.... He did so much to ameliorate the lot of the miner" [obituary]
 Clement Le Neve Foster and his family
 lived at Min y Don for 25 years.

Query Corner

(Please reply direct to the correspondent. Any follow-up info will however be gratefully received by your editor to allow a suitable response to be placed in the next newsletter for the benefit of all.)

27. Quick-Lime 'Explosive' - George Hall's request for information on this subject has produced the following responses...

'In Newsletter # 47, Item 34, George queried the evidence for the use of lime for rock breaking. Like him, I have only encountered anecdotal reports but, interestingly, these have included its use in what was probably a C17 or early C18 coal mine at Llanelli, Carmarthenshire where lime was associated with finds of iron-tipped wooden tools. The use of lime and other alternatives to explosives in coal mines was revived in late C19 and in C20 in an attempt to reduce the likelihood of methane explosions, and coal dust explosions, for blasting produces much dust. C. LeNeve Foster discussed a wide range of alternatives to explosives in his *Ore and Stone Mining* (1st ed, London, 1894: pp.208-209) all of which utilised conventional bored holes: metal wedges including plug and feathers; freezing water (in cold climates); wooden plugs which expand when moistened; compressed air (experimental only); hydraulic cartridges (again, experimental only); and lime. The procedure he describes for the use of lime is exactly the same as that given by C. Pamey in 'The Colliery Manager's Handbook' (1st ed, London, 1891: p.481), who gives greater detail. Pamey describes the use of lime cartridges as something that 'has been tried within the last few years' and noted that 'its use has not become at all general'. Cartridges containing hydraulically compressed lime were used in holes 2.75" diameter and tamped with a 0.5" diameter pipe in place, down which water was pumped and pressure contained after the pump was removed by closing the small tap fitted at the end of the tube. Interestingly, the coal was

cracked not by the expansion of the lime but by the steam evolved. It was noted that the technique did not work in very strong coal or in coal that was very porous. Lime seems not to be mentioned in early C20 coal mining texts and in 1954 it was dismissed as ‘an early alternative [to explosives] now little used’ (E. Mason, *Practical Coal Mining*, 4th ed, London, 1954, vol.1, p.178). The early post-nationalisation period saw the use of ‘Cardox’ and ‘Hydrox’ shells to burst coal (based respectively on carbon dioxide, and on the reaction of sodium nitrate with ammonium chloride to produce steam and nitrogen) in a manner comparable to lime cartridges, as well as hydraulic ‘coalbursters’, (all three required holes up to 3” diameter but no tamping). They were rendered obsolete by the widespread adoption of powerful mechanical coal cutting machines in the 1960s.’

Robert Protheroe Jones - NMGW Curator

George Hall continues... ‘So far as lime blasting is concerned, I have had some response, by far the most material being from Ivor Brown, who says :

“Lime blasting was fairly extensively used in coal mines in the 1880s, see ‘Dictionary of Mining’ by Nelson, 1964, p. 255, who says that they were 4 in. in diameter, filled with ground lime, and 2 ft. 5 in. long. They were introduced by C.S. Smith and T. Moore in 1881. See also ‘Modern Mining Explosives’ by M. Eisler, 1897, p. 295, and the Final Report of the Commissioners on Accidents in Mines, 1886, p. 64.”

I understand that proprietary ready-prepared lime cartridges were used in coal mining for many years. No flash, of course.

Ivor recollected Nellie Kirkham remarking that lime-blasting holes were much larger, at about 4 in., than those for powder, which were nearer 2½ in. He also saw lime blasting used in Leaton Quarry, Shropshire, in the 1960s, to remove old concrete foundations close to important buildings, where powder blasting could not be used. It took longer than expected, but did the job.’

Finally George asks whether anyone has ever seen the remains of such large holes in Wales, as he cannot recollect any such himself.

28. Cwm Mawr (Fair Chance) and Cole’s Pressure Engine - As a follow-up to the article in the last Newsletter, (Items 49 & 50), George Hall asks :

“A question that I would like to ask members is, what would the term ‘flywheel’ have meant in the 1780s ? Roger Bird remarked that a wheel and chains were apparently used at Cwm Mawr instead of a beam. David Bick thought that the use of ‘flywheel’ implied a rotary engine. Roger thinks not, pointing out that this date is at the infancy of steam-driven rotary drives as we now understand them. So would ‘flywheel’ have then been used to describe an oscillating wheel that transferred motion from the engine cylinder to the pumping beam ?”

See also Items 41 & 42, this N/L, for further details about this mine.

29. Mystery Mine - With reference to Item 37, last N/L, David Bick provides the following response: ‘North of Pantmawr, otherwise Braces - David James has enquired about old workings at NGR SN 855 831. This was Nant y Gog. Far from it being unknown, you can read about it in ‘*The Old Metal Mines of Mid-Wales*’, Part 6, p.27. There may be more in Clwyd Record Office, where I got the details.’

George Hall has informed David James of the following entries in the Mining Journal, under the name of ‘North Nanty’ which he feels may apply to this location;

1862; p. 762. *Issue of November 8th. Capt. Williams. The mine is progressing satisfactorily. The lode is opening up well, and is from 3 to 4 ft. wide. I have some fine specimens, which I will bring up with me in a few days...*

1863; p. 91. *Edward Williams, Feb 4. The cross-cut to the south is through the lode, and no ore to put any value on, only spots of sulphur and mundic; the lode at this point is about 6 ft. wide. I have instructed the men to stope away the roof of the level they drained by the south side of the old one, and there are fine spots of lead ore to be seen in the roof, and I hope that it will improve too; this they will do until I hear from you concerning sinking the engine-shaft in the old mine.*

David James adds the following field observations in response to my comments regards the 1st Edition 6" OS ; "The tip you found on the OS at SN 8473 8365 proves to be an OS howler. It is entirely natural, a spring burst/landslide in 'badger sand' (soil and small shale fragments); there are other examples nearby. The soil gets washed out by rain leaving shale that looks like a tip. However, the OS missed a real tip (dinky but with bedrock fragments, sadly without an open adit) at SN 8405 8541; near which much gruffy ground indicates trial scrapings."

And finally, (although I suspect not !), check out British Mining Vol.45 pp.37-40, for details on 'Nanty Mine' – part of the same sett ?

30. Bronfloyd Share Certificates – 'George Hall is writing a history of Bronfloyd Mine in the 19th century, and would be most grateful if anyone who has share certificates of any of the various Bronfloyd companies who worked it in that period, would let him have a note of the full and exact name on their certificate(s), and the date thereof.'

31. Spar boxes - Yorkshire-based member John Gibson is looking for historical and other info on spar boxes, also sometimes known as spar houses. For the uninitiated, these are displays of mineral specimens ranging from small abstract arrangements in picture frames right through to cabinet examples representing houses, mining, countryside or street scenes. They were generally made at home by metal miners using specimens they 'acquired' in the course of their work. They were either kept on display in their own homes or sold to generate an extra bit of income. The practice seems to have been fairly common in the 18th, 19th and early 20th centuries in the Isle of Man, the Peak District and the Northern Pennines but, so far, John has not uncovered any references to similar activity in Wales, South-West England, Cumbria or Scotland. Any info would be greatly appreciated. Please contact John by e-mail at john.gibson@dfes.gsi.gov.uk, or drop him a line to 83 Grove Road, Millhouses, Sheffield, S7 2GY.

Book Reviews & Bibliographical References to Welsh Mines & Mining

Due for Publication

32. 'The Old Copper Mines of Snowdonia', *David Bick*. The 3rd edition, (*now re-titled 'Copper Mining in Snowdonia'*) greatly enlarged with new material and illustrations, is due to be published by Landmark Publishing early in the summer.

David Bick

Book Reviews

33. ‘Victorian Slate Mining’ by Ivor Wynne Jones. ISBN 1- 84306 073 6. 144pp. with over 150 photographs 246 x 174mm. Hardback with wipe clean dust jacket. £15.95 inc. post & packing. Landmark Publishing Ltd., Ashbourne Hall, Cokayne Ave, Ashbourne, Derbyshire, DE6 1EJ.

In 1893/4 a public enquiry was held into the safety of the slate mining industry in North Wales. J.C.Burrows (noted for his underground photography in Cornwall) took the Report’s official photographs and also took around 70 more of Llechwedd Slate Quarry. These, plus others of that era have been brought together with some 25,000 words covering social, economic and health concerns determined at the inquiry.

The vast majority of the photographs are of Llechwedd, some are more recent. There are photographic records of Llechwedd mills, rolling stock, railways and equipment. There is also a short chapter on the current Llechwedd Tourist operation.

The book is well produced with a good standard of photographic reproduction. There are a number of very interesting photographs and quite a number that I have not seen before. One criticism is that some of the captions could contain more detailed information, as key features shown are not mentioned. In order to meet the deadline for the Newsletter (because our editor is always punctual !!!!!) [*Sarcasm will get you nowhere Mr. Knight Sir ! – Ed’*] I have not had time to read the book as yet but the initial reaction is that it is well worth a place on the bookshelf.

Word of warning for the fainted hearted – beware of page 92 !

J.A. Knight

Peter Challis adds... ‘From memory, Burrow’s photographs used in the final Committee’s Report are so poorly reproduced as to be almost useless, caused, again from memory, by the poor quality of the paper used to print the report. However, as befits Landmark’s attention to quality, the photographs are superbly reproduced here.

The author examines the evidence, conclusions and recommendations reached by the Committee and he also provides a brief synopsis of the Llechwedd mines under the ownership of the Greaves family, one of whom was appointed as a member of the 1893 Departmental Committee.’

34. ‘Life On A Line - A manual of modern cave rescue ropework techniques’ Part Three, *Dr D.F.Merchant, 60pp.* With reference to Item 42, last N/L, the final section, of this ‘on-line’ publication has now been released. I’m sure it will soon become ‘the’ standard work on the use of ropes in cave rescue. If you ever hang off a rope, or are thinking about doing so, then find the time to read through all three parts of this excellent guide – amongst many other things, you’ll then know that there’s a ‘right’ and a ‘wrong’ way to tie a figure of eight knot !

The two previously published parts have also been updated, and have been saved in the latest Adobe Acrobat format (Ver.5.x) allowing better resolution graphics – this does, in turn however, require Ver.5.x of Adobe Acrobat Reader to view. All parts can be downloaded free from <http://www.draftlight/lifeonline/>

35. ‘Mr Lean & the Engine Reporters’, *Bridget Howard, 99pp.*, £9.99. This is all about the records published by sundry authors, between about 1812 and 1900, to compare the ‘efficiency’ of Cornish engines in terms of water pumped and coal consumed. Most of them were liable to error and downright fraud and thus often need taking with a pinch of salt, but

nonetheless much useful information is presented in a very readable fashion. However, a few illustrations of the engine houses themselves would have been welcome. Published by Tor Mark, PO Box 4, Redruth, TR16 5YX

David Bick

36. ‘Excavations on Copa Hill, Cwmystwyth (1986-1999) - An Early Bronze Age copper mine within the uplands of Central Wales’, *S. Timberlake with contributions by T. Mighall, S. Clark, A. Caseldine, N. Nayling, D.M. Goodburn, B. Craddock, J. Ambers, A. E. Annel, and R.A. Ixer*, 127 pp. BAR British Series 348 (2003). British Archaeological Reports have just published this monograph of the Archaeological Report On Copa Hill, in their blue series. Copies at £29 each can be obtained from Hadrian Books Ltd., 122 Banbury Road, Oxford OX27BP bar@hadrianbooks.co.uk or from Archaeopress itself <http://www.archaeopress.com>

Simon Timberlake

Bibliographical References to Mining in Wales

- 37. ‘Below’** – Quarterly Journal of the Shropshire Caving & Mining Club, No. 2002.3
 p.16 ‘Valley Factory, Rhydymwyn Reclamation Work’, Details clean-up of chemicals previously stored by the MOD at this site - a former lead mine.
 p. 8 ‘Trip Report – Cwm Orog; 24th August 2002’, Steve Holding.
- 38. ‘...British Coprolite Industry’** Mention of a visit to ‘Berwyn Mine’, a phosphate mine in the Berwyn Mountains at NGR SJ 105 295. *PDMHS N/L, July 2002, No.103, pp.*

39. BODCOLL, DOLWEN and DE BROKE

As there is some confusion in the existing literature about these mines, I thought I would go through the material in the Mining Journal to try to clear it up, and accordingly typed out in précis most of the reports therein. I have also had another look at Dr. O.T. Jones, Francis, Liscombe, Spargo, and the Mineral Statistics and Lists of Mines.

Reading through the M.J. at first seemed to make the situation only more obscure, but slowly the information started to fit together, and at last I sorted things out to my satisfaction, and, I hope, to everyone’s.

However, the identifications made below of the various workings are my interpretations of often unspecific old reports, which could be read in different ways. Your views may not be the same as mine, and anyone is welcome either to write to tell me I’m wrong, or send criticisms in to the Newsletter, so that we can, in the end, arrive at the truth, which ought to be, but all too often isn’t, the aim of historians.

The Old Series 1” Geological Map marks a single lode running north-east from near Bodcoll farm along the south-east slopes of the Myherin valley, past the site of Tygwyn, then over Pen Corbed and Draws Drum, and down almost to the Nant Myherin again. The old reports, however, always refer to two lodes, north and south, roughly parallel, and others have been seen at Tygwyn (De Broke).

The first series of reports in the M.J. came from the South Wales Mining Company, in 2,000 shares, of which Mr. T.P. Thomas was purser. This company worked at Bodcoll (sometimes called Bodcwl) and Dolwen from 1849 to 1852. They at first held Bodcoll only, which they seem to have bought from one Vaughan Prance for £400, but soon acquired Dolwen from John Salmon for £100, when their adit going north-east from the bank of the

Afon Rhuddnant opened a promising lode. The combined properties, lying south-east of the Afon Mynach, extended from Bodcoll farm to Pen Corbed, a distance of about two miles.

They began operations in the south-western part of Bodcoll, at an old mine later called Gertrude (NGR SN 759 767). Here they did some driving at both shallow and deep adits, but without success, consequently giving this part up in November 1849. 8 tons 2 cwt. of dressed galena were sold in that year, presumably from here. 50 tons were said to have been raised previously from a shallow adit on the north lode.

In the meantime they started, or restarted, a deep adit going north-east from the Rhuddnant river, (NGR SN 773 776) on what they called the south lode. The entrance to this level can be seen by the side of the Forestry road, a few yards west of the bridge over the Rhuddnant. It had been driven altogether 46 fms. by the end of January 1850, and had passed through some quite good copper ore, a little lead, and a good deal of mundic, as much as 6 tons per fm. of the last. However it was stopped soon afterwards in favour of exploring old workings, 'near the top of the hill', 200 fms. to the north-east. These consisted of an opencut about 12 feet deep, showing a rib of lead 1 to 3 in. wide, and an adit 20 fms. to the west, and 12 fms. deeper, which had not reached the vein. Costeaning then found this lode 100 fms. further east, where a new trial shaft was started. I think this must be at NGR SN 780 783, hereafter called Pen Corbed, although the distances do not agree. However a report in 1869 gave the second interval as 200 fms., which would be about right.

These trials did not prove successful either, and were discontinued in August 1850, when the company's attention was taken by a discovery made near Aber Rhuddnant by a Mr. Lewis Pugh. The South Wales Company had been under the impression that this was part of their sett, but Mr. Pugh claimed it to be an old enclosure belonging to him, and, driving an adit and sinking a shaft, found some rich lead ore. This small mine is usually called Llan-eithr. The South Wales Co., against some physical opposition from Mr. Pugh's men, sank a shaft, called Thomas's, a few fms. distant, to a 12 fm. level, and a little below, but without finding anything worthwhile.

In February 1852 they tried the north lode, north of, and close to, the 'Rhydnet' river, near the mouth of the Dolwen deep adit. Here they sank about 6 fms. and drove a few fms. but, the lode being vughy, they were too hampered by water to persevere for long.

Up to now, according to the M.J. Share List, the South Wales Co. had called up £1.15.0 on each of its 2,000 shares, but, more money being needed, and the existing shareholders presumably reluctant to meet further calls, it became desirable to put a new face on affairs. So, in January 1853 the South Wales Mng. Co. changed into the Bodcoll Mng. Co., in 5,000 shares, which made an initial call of 2s. 6d. per share. Mr. Joseph of Winchester-buildings was purser, but Mr. Thomas maintained his association with the company. Not much information appeared in the M.J. in 1853, 1854, and 1855, but during this period they continued the Dolwen deep adit to the north-east, it being claimed to be 80 fms. long by November 1855. This seems to have been an exaggeration [see below].

A new engine-shaft, north of the Rhuddnant and connected to this adit, had also been started, pumped by a 40 ft. by 4 ft. 6 in. water-wheel. This shaft must, I think, be represented by an obvious hollow in the ground about thirty five yards in from the deep adit portal. What was no doubt the wheel-pit, 44 ft. 6 in. by 6 ft., can be seen on the uphill side of the Forestry road a little above this shaft. Why it should be so high above the stream is something of a puzzle.

A report in 1853 asked whether the mine would get a new water-wheel, or 'whether we are to have the 25 ft. wheel now on the mine, formerly at Rhydnet.' If this latter had been a mine wheel, where had it been used, and for what purpose ?

During 1856 and 1857 the 10 fm. level from the new engine-shaft was actively driven, east and west, but principally the latter, to explore the lode opened in 1852. This went under the river, and appeared sufficiently promising for a new shaft, called Evans's, south of the river and 52 fms. west of engine-shaft, to be sunk. The 10 ends holed through in May 1858. Flat-rods were then laid to Evans's, which appeared the better end, and which reached a 22 fm. level in October of that year. This level proved disappointing, and Bodcoll had disappeared from the M.J. Share List in January 1857, by when £17.0 had been paid on each share. No reports appeared in the Journal after June 1859, and in August 1861 Mr. T.P. Thomas sold the mine and plant at Garraway's Coffee House, Change-alley, a popular venue for such auctions, for £52. The 40 ft. wheel went to Llywernog that November.

Presumably Mr. J.B. Balcombe, of Bronfloyd and Llywernog fame, bought the sett and plant in 1861, as it will be seen below that he was the promoter of the companies that worked at Dolwen over the next dozen years.

The boundary between Bodcoll and Dolwen land at this time ran about north-north-west from the Rhuddnant, 2,000 ft. east of its confluence with the Myherin, reaching the Myherin 2,800 ft. north of the same confluence.

When Bodcoll and Dolwen were worked together this boundary could be ignored, but late in 1856 they were separated. In that year the Dolwen Lead Mng. Co. Ltd., with a nominal capital of £5,000 in £1 shares, started operations, north of the Rhuddnant. Mr. J. Beddoe, of Stourport, one of the principal subscribers to the new company, had a connection with the Bodcoll Co., as he took the chair at a meeting thereof in February 1859, but neither Mr. Thomas nor Mr. Joseph seem to have had a part in Dolwen.

The new company immediately dressed 4 tons of galena by hand. This, I think, must have come from the workings on top of the mountain (Pen Corbed), which had received some attention from the South Wales Mng. Co. in 1850. If I am right they then continued an adit, which seems to have been started after 1850, west on lode towards the shaft and open-cut, and sank the shaft, called engine shaft, eventually to 13 fms. The adit was stopped, at a distance of 64 fms., still 26 fms. short of this shaft, in October 1857.

They also sunk the new Valley shaft between June and September 1857, by when it had reached a depth of 7½ fms., but I have not been able to work out where this was.

A line of rods was then brought 'over the mountain' from the Bodcoll wheel, presumably by arrangement with the Bodcoll Company, and in spite of the season, completed by the end of the year. The shaft on Pen Corbed could then be sunk, and some development done below the old stopes, but this did not find payable ground, and work seems to have stopped in April 1858.

Dolwen then again went 'under the hammer', but emerged in late 1862 as a part, with Clara, Llywernog, and Ponterwyd mines, of Mr. Balcombe's Clara United Co. (Ltd). They had determined to adopt the radical plan of driving a deep cross-cut adit north from the Rhuddnant through the Dolwen mountain. This idea had been proposed before, but not proceeded with owing to the length of time such a driving would take by manual labour. Mr. Balcombe thought this obstacle could be overcome by the use of machinery, and one of Crease's Excavating Machines, driven by steam, and built by the Cambrian Foundry, went to work in November 1863. (NRG SN 7815 7790) Unfortunately, although it could on

occasion drill single holes at high speed, it proved hopelessly unreliable, continually breaking down, and this ambitious project came to a premature end in May 1864.

The company then again drained the old shaft 'on top of the mountain', (Pen Corbed) which proved to be 12 fms. deep, with a level at the bottom driven for 8 fms. Appearances were sufficiently encouraging for them to restart the adit, partly driven in 1857 and earlier, and this reached the shaft workings in June 1865. Further exploration here found nothing payable, and work ceased in November 1865.

Mr. Balcombe had not, however, lost faith in the locality, and in February 1869, the prospectus of The Dolwen Co. Ltd., with a capital of £5,000 in £1 shares, appeared in the Mining Journal. This company had been formed, in 1,000 shares of £5, in March 1867, to take up a lease from the Crown of 798 acres, that is, Bodcoll and Dolwen, but owing to the effects of the commercial crisis of 1866 only 421 shares had then been taken. 2,000 of the new shares 'will represent the outlay of the company to the present time', that is, they went to Mr. Balcombe, and any associates, for the property, and 3,000 were to be issued for working capital.

It seems, though, that the new company had only Dolwen, with some rights over that part of Bodcoll north of the Rhuddnant, because at some time early in 1869 Mr. Balcombe assigned the north-east part of Bodcoll to Messrs. J. and R. Taylor. For this he received £500 and five free shares out of the seventy into which their new Tygwyn Mines Co. was divided. Operations there, are described below.

The Dolwen Co. restarted the Dolwen deep adit, then 72 fms. long on the south lode. This starts from the bank of the Rhuddnant, in the triangle of enclosed fields north of that river and east of the Myherin, referred to above, which were a part of Bodcoll. Bodcoll, as mentioned, had been transferred to the Taylors, but under that arrangement the Dolwen Co. obviously had access to this adit.

The adit, driving north-east, met the north lode in February 1870. A shaft was then started to adit, and holed through at a depth of 24½ fms., and 108 fms. from the mouth, in January 1871. The level being continued, on the south lode, passed the boundary of Dolwen proper, at about 180 fms. in, and was driven on, usually with six men in the end, finding frequent patches of galena, and sometimes copper, but never quite enough to pay.

Early in 1871 Mr. Balcombe purchased a piece of land, 450 acres in extent, immediately to the east of Dolwen, and promoted it as the East Dolwen Co. (Ltd), in 5,000 shares of £1. Some work had been done here, presumably not long before, by 'Captain Pearce and his friends'. The new company drove a new cross-cut adit south from the Myherin, 10 fms. above the bed of that river, which cut a lode in about 40 fms.

At this point it became desirable, presumably to facilitate the raising of more money, to amalgamate the Dolwen Co. and East Dolwen, as the Dolwen Consolidated Company, in 12,000 shares of £1. 10,000 of these were allocated one for one to the existing shareholders in the two old companies, and 2,000 were to be issued for cash.

The new company, starting operations in December 1871, continued the Dolwen deep adit, now known as the Western Main Adit, to the east, while driving the East Dolwen cross-cut, now the Eastern Main Adit, west on lode. These ends were continued, with six men in each at first, later four, at from £5 to £7 per fm., although in April 1872 the men from the latter were taken for a time to have yet another look at the old shaft and adit on top of the mountain. These figures indicate a rate of progress of about one fm. a week. Lead frequently

occurred in both ends, but never quite enough to pay, and work seems to have ceased in October 1872, by when ventilation had become a problem in both levels.

Returning to Tygwyn, it has been explained that John Taylor and Sons sub-let this property, formerly a part of Bodcoll, from J.B. Balcombe early in 1869, or perhaps late in 1868. It is not clear how or by whom a discovery was made here, but in March 1869 a report mentioned a shaft sinking 'on as promising a lode as ever seen, yielding a large quantity of ore.' In the next three and a half years the new Tygwyn, later No. 1, shaft was sunk to a 25 fm. level, a pumping-wheel put up, and development carried on at the 15 and 25 f m. levels, but without much success until in April 1871 a shallow adit cross-cut met a fine lode. This caused them to erect a new pumping-wheel, in addition to the one started in 1869, and to reopen what must have been Evans's shaft, then called No. 3, nearer the discovery than No. 1. The mine now looked good enough for it to be sold 'for a large sum' to the new De Broke Mng. Co., capital £20,000 in £4 shares, who seem to have taken over in December 1872. The first chairman was T.C. Munday, one of the original promoters of the Van Mng. Co.

Regarding this name, an advertisement in the M.J. of 1880 offering the Mynach Vale mine (previously De Broke, Tygwyn, and Bodcoll) for sale described it as being on the Willoughby de Broke Estate. This is surprising, as the Bodcoll and Dolwen companies of the 1850s and 60s worked under leases from the Crown, and the Crown still owns the minerals of what was, before the arrival of the Forestry Commission, the open mountains and hillsides down to the enclosed land on the valley floors. William Chambers, who owned the Hafod Estate in the 1860s, had obtained a mortgage from Lady Willoughby de Broke, on the security of the Estate. When he could not meet the payments she foreclosed. She then, in September 1871, sold the Estate to John Waddingham. However, I am not aware that the Hafod Estate ever included Bodcoll, and it does not seem likely that the Crown would have sold these minerals, and later bought them back. I infer that at some time in the early 1870s the owners of Bodcoll Farm were able to persuade the Crown that they owned the minerals under the enclosed fields in the valley, which would include the Tygwyn mine workings, and that Lady Willoughby de Broke bought the property in about 1872.

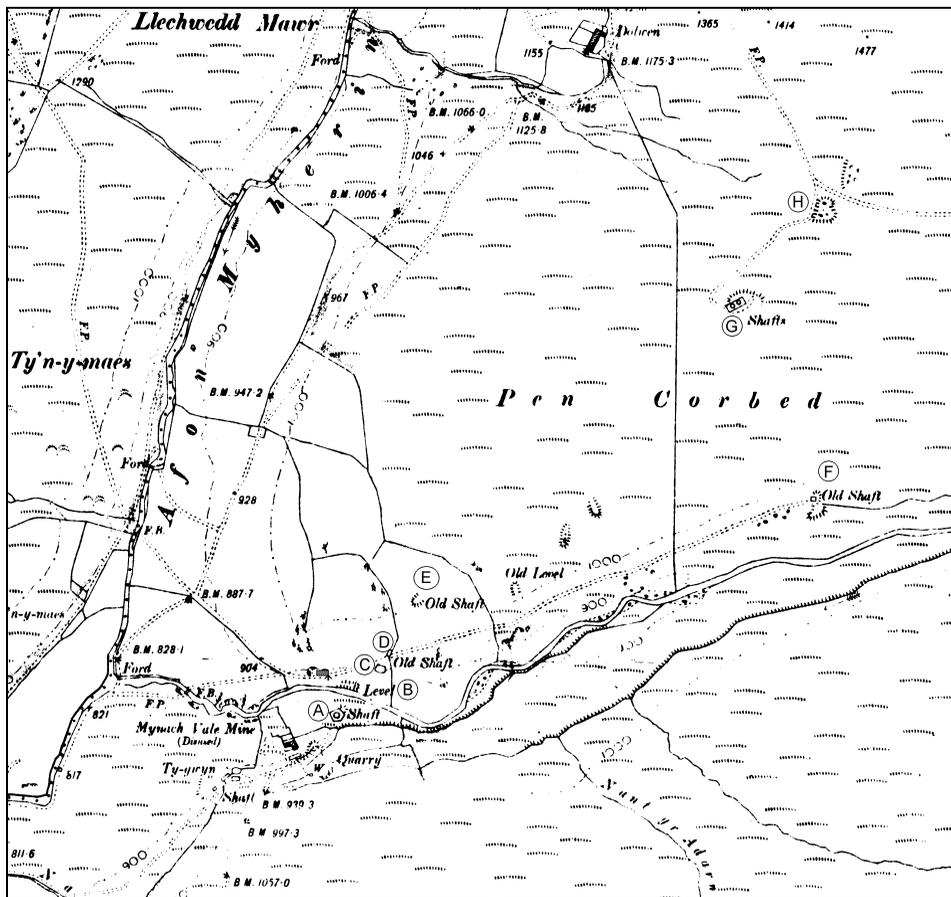
Further development encouraged the company to put up another large wheel, with dressing floors, in 1874, and to sink a new shaft, called Wilson's. From this, levels at 35, 45, and 55 fms. were then driven, and the mine was actively worked up to mid-1879 on the Main and Caunter lodes, while other lodes were met in the shallow adit. But although values of up to 2 tons of galena per fm. were several times encountered, the lodes were not on the whole sufficiently rich to pay, and the mine was offered for sale in 1880. More than 40 men were employed in 1877-78.

The great fall in the price of lead that started in 1878 had by now discouraged many investors, but nevertheless a new company, Mynach Vale Mining, took over in 1882, and continued to work the mine, although on a reduced scale, until 1887. Unfortunately no reports of these workings appeared in the M.J.

When Mr. Balcombe sub-let some of Bodcoll to the Taylors he retained the south-western part, beyond Tygwyn, including the old Bodcoll mine, and in about 1868-69 he granted a tacknote of this section to a party of working miners. They were successful in finding good lead ore, and sold their rights to Robert Girdwood. He developed the mine fairly extensively over the next few years, under the name of Gertrude, and engaged George Green of Aberystwyth to put up one of the latest dressing plants.

Ribs of galena up to two feet wide were at one time seen, but unfortunately they did not prove to be extensive, and operations came to an end by the mid-1870s. Both Bodcoll and Dolwen made occasional appearances in the List of Mines after that date, but the amount of work done in later years seems to have been negligible.

With regard to the Mineral Statistics, Bodcoll (that is, the part called Gertrude in the 1870s) can be credited with a sale of 8 tons 2 cwt. of dressed galena in 1849, probably 50 tons at some earlier period, and 348 tons 16 cwt. between 1870 and 1876.



Mynach Vale Mine

Reproduced from the Second Edition 6" Ordnance Survey map,
Cardiganshire Sheet XII N.W. (G.W. Hall)

- A - Evans's or No. 3 Shaft.
- B - Dolwen deep adit.
- C - Dolwen Engine-shaft.
- D - Wheel-pit.
- E - 1870 Shaft.
- F - Mr. Balcombe's proposed great cross-cut.
- G - 'Pen Corbed' Shaft.
- H - Presumed adit.

The 2 tons 13 cwt. recorded from Dolwen in 1857 may, I feel, be assumed to be a more accurate weighing of the 4 tons claimed to have been sold in that year, and it seems reasonable to estimate that 10 or 20 tons had been recovered at earlier periods.

The 15 tons recorded from De Broke in 1872 seems to be galena picked out by hand from time to time, from 1869 on, when ribs from 6 to 9 in. thick were encountered, as sometimes occurred. Some of it was potters ore, as reports in the M.J. during January 1872 mentioned that 2 tons of this more valuable mineral had been collected.

There is no mention of the Dolwen mine in the numerous reports from De Broke between 1872 and 1879, nor of workings that might be at the former mine, nor does 'De Broke or Dolwen' appear in the Mineral Statistics. I do not know why Hunt's Lists of Mines sometimes linked them in the late 1870s, but perhaps the De Broke company took on the Dolwen lease at this time. In any case, I see no reason to doubt that Dr. O.T. Jones is in error, and that the production of 1,023 tons of dressed galena from De Broke, and then Mynach Vale, between 1872 and 1887, came entirely from the Tygwyn mine.

A recent visit found the Tygwyn site to be much ruined, with parts obscured by close-set conifers. In the more open land two wheel-pits can be seen, one, small, on what were evidently the dressing floors, and one 27 ft. 6 in. by 5 ft. 6 in. aligned on the No. 3 (Evans's) shaft, with a small building, no doubt for a drawing machine, attached, as well as the positions of at least two shafts.

The site of Mr. Balcombe's ambitious deep adit, north from the Rhuddnant, is now occupied by a clay-pigeon shooting range, the only indication of the level being a hollow in the hillside, presumably the slumped portal, and a fragment of old wall.

The workings on the lode on top of Pen Corbed seem to have been completely destroyed by the Forestry people having extended the old mine track right over them. Nothing is to be seen either of the adit thereto, 600 ft. by the 6-in map (not far off 90 fms.) to the north-east, the site being covered by closely-spaced conifers. I have not been to the East Dolwen adit, which must be on the south bank of the Afon Myherin, some way further north-east.

There are old workings in the wood immediately above the Dolwen deep adit, including a deep hollow at the shaft sunk in 1870, but I did not get as far as the surface workings, at about NGR SN 777 779.

Although there is not a great deal to be seen today at Tygwyn and Dolwen, and for the mine enthusiast it's an unrewarding walk up the Rhuddnant Valley and to the top of Pen Corbed, there are some features of interest, and, I think, some exploration would be worth doing, particularly on the leat system. Unfortunately this is greatly hampered by the bad practice followed in many plantations hereabouts of not thinning very closely spaced conifers. This has resulted not only in a lot of poor timber, but in impenetrable thickets, and when these are clear felled the ground resembles a battlefield, covered in tangled brushwood and brambles, which is not very inviting, nevertheless it's a beautiful and remote place.

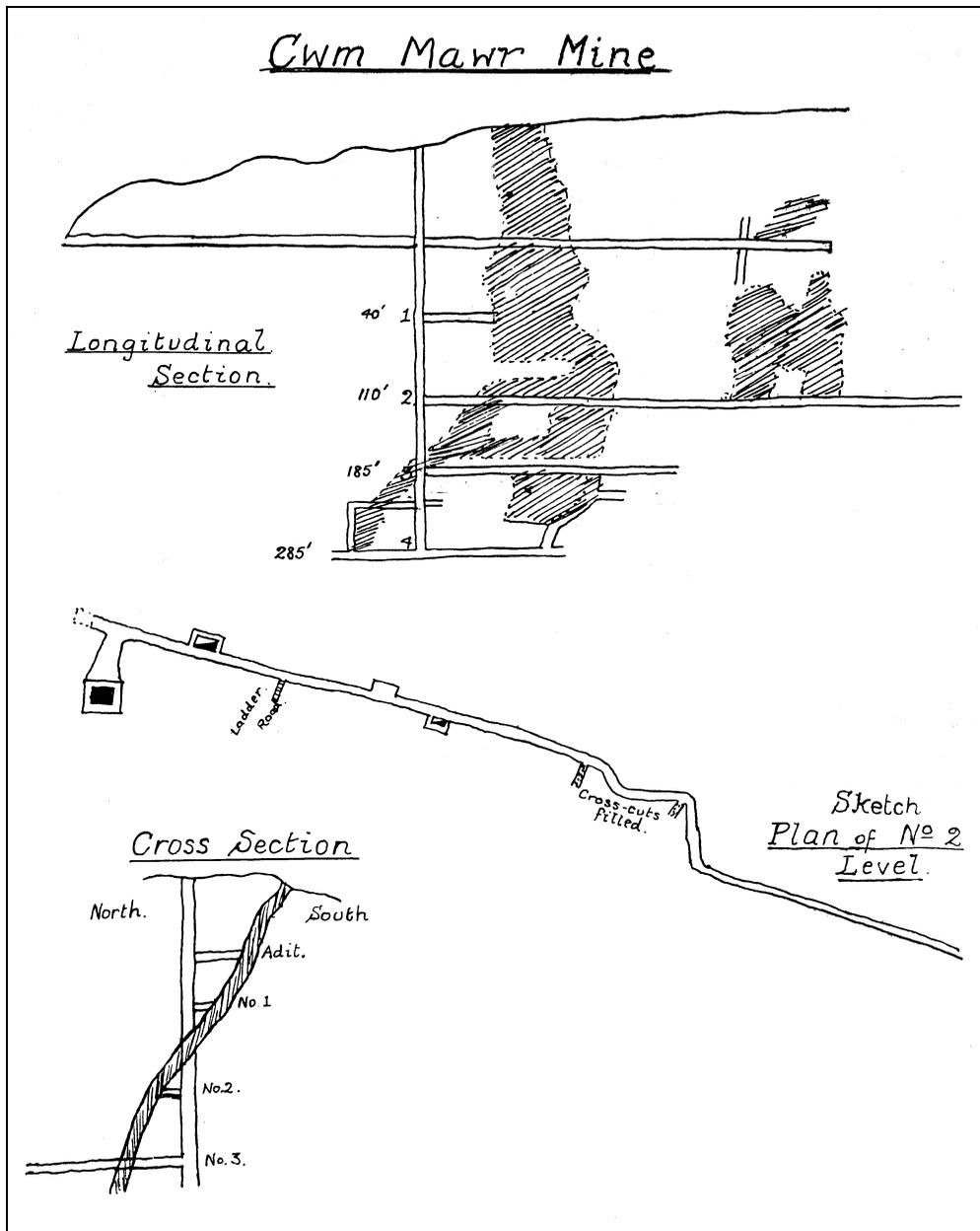
G.W. Hall

Miscellaneous

40. Geevor & Anglesey Mining Cos. - I have a lot of annual reports of these companies, going back many years – some of them with plans and colour photos – free to anyone who wants them.

David Bick

41. **Cwm Mawr Mine (Fair Chance)** - George Hall has provided a copy of a 'part section & plan' of this mine by L.C.Stuckey, which is reproduced below. It's undated, but George thinks it's circa 1917, or possibly a little earlier.



Cwm Mawr Mine by L.C.Stuckey – Circa 1917

Source: G.W.Hall

42. The Fairchance Engine - George Hall's observations (N/L 47, Item 50) are very useful. Initially there were problems relating George's section to Probert's plan of the excavation because there seemed to be a 90° shift in orientation, but these have been resolved and I am in no doubt that the cavity seen was that originally occupied by Cole's engine. The remains are of the right height, but wider and deeper than specified. Whether this enlargement was done in the 1780s or at a later date is unknown, but presumably Taylor's later water pressure engine went in the same place and may explain the larger cavity. What is now certain is that any lingering hopes of finding either of these engines abandoned in situ have gone.

Taylor's engine may have been built by John Darlington. In Phillips and Darlington's *Records of Mining and Metallurgy 1857* (seen by courtesy of Simon Hughes), an engine having two 20in. dia. cylinders of 6ft. stroke operating at 8 strokes per minute is recorded as having gone to a Lisburne mine. Unfortunately neither the mine nor the date are given and other confirmatory records are lacking.

Roger Bird

43. 'Esgair Llee' - Regarding Item 48, last N/L, another most valuable contribution by George to which I (*SJSH*) would like to add some further comments :

Whilst I was working on Van Mine in the mid 1980s, I was shown some papers regarding Captain W.H. Paull's tenure of Van and of his proposals to lease Nant y Creiau, Castell and Esgair Llee in the early 1900s. These interests appear to have come to nothing.

In 1973, I was engaged by Dyfed County Council to investigate shallow workings below the A44 Trunk Road. Their contractors, Messrs Beechwood, provided the plant to reopen a shallow stope at SN 7938 8295 and the shallow adit at SN 7924 8280. The stope was both narrow and shallow, as such it presented no hazard and was backfilled. The Shallow adit was a most curious affair, a drift driven along a poor stringer. A rise on the back of this adit gave access to a higher drift, in the back of which was another small rise into an ancient backfilled opencast. When we surveyed this adit, the rise came to surface in an old outcrop working at SN 7928 8290. Several stone hammers were observed in this working.

Between the mouth of this adit and the rise to surface is a sizeable engine shaft, into the side of which was cut a bob-pit. I suspect that this is Barker's Shaft, and that it never came to surface. The adit had been straightened at some time and the rusted remains of an inch and a quarter diameter steel cable lay on the sole of the level. The whole of the rest of the pumping gear had been removed. It never appears to have been used as a winding shaft and from the volume of development rock at the portal, I suspect that it was risen from the Middle Adit. The water in the shaft stood at about 120 feet below this adit, but regrettably we never descended the shaft.

To the north and north-east of Eliza's Shaft, above the A44T, around SN 7914 8310, is an area of gruffy ground which has seen some agricultural improvement in recent years. A resistivity survey showed linear anomalies and I interpreted these as shallow costean pits along the courses of stringers or irregular minor lodes. As they presented no hazard to the integrity of the road, they were investigated no further.

During the early 1990s, the site suffered badly from being used to stage four wheel drive rallies but these ceased after intervention by the NRA and local authority. In the mid 1990s there was then a proposal to construct a rifle & pistol range on the site but this was withdrawn after the Hungerford and Dunblane incidents.

There is a curious connection of many of the people who were involved in Van and Van Consols (Bryntail) with Great West Van – *Lavington, Gundry, Roach et al.*

In some years, it is quite clear from the Mineral Statistics that ore which was sold as the produce of Great West Van had originated elsewhere. Of some note is that Sir John Rees, later to become Principal of Jesus College at Cambridge, at the age of 12, commenced his working life at Esgair Llu Mine.

Do not confuse the Old Esgair Lee Engine Shaft (ELES) with the neighbouring stope in the woods. This shaft was in the bottom valley floor, at SN 7948 8289, and was totally obliterated by robbing the extensive dump for roadstone, some 30 years ago. This shaft was sunk in a particularly poor location as not only is the valley prone to flash flooding, but there is a considerable depth of tilth in the valley floor. The dressing plant which was located here in 1849 was carried away during a stormy night. Whilst in use, water must have cascaded down the shaft and placed a significant extra burden on the pumping requirements. Despite being long since obliterated, under drought conditions the stream disappears in the vicinity of this shaft.

To the east of the Old Engine Shaft, there is an open-stope alongside the mouth of an adit at SN 7963 8299. There is a strong flow of ochreous water in this adit which runs into the stope and does not appear to come surface again. It must be assumed that there is some strange hydrology taking place within the old workings.

Having examined the mine upon several occasions, I feel that a better understanding of the mine could be gained if the No. 2, or Middle Adit, was accessible. Immediately downhill of the Middle adit, there appears to be an unrecorded adit, about 30 or 35 feet below the Middle Adit and maybe 8 or 10 feet higher than the Deep adit which drains Eliza's Shaft.

I am of this opinion because of four indisputable factors:

- a) crushed timber lagging which protrudes from the dump,
- b) water rises from the ground here,
- c) the dump form is suggestive of an adit,
- d) it is on the course of the lode worked in the Middle and Shallow Adit.

The Deep Adit which enters Eliza's Shaft has been badly silted up and flooded since I first visited the site in the late 1960s. Little or no water is discharged from either the Shallow or Middle Adits.

Esgair Llee is the form which I prefer as it is closest to its Welsh name – Esgair Llu, whilst Cwmeryr is also applied locally. Would someone possibly care to comment on the relationship of the Esgair Lle lodes with those mined at Castell ?

Finally, a curious point upon which someone may be able to throw some light is regarding the Girard turbine adopted by Urquhardt & Small to drive the winding and pumping gear at Eliza's Shaft. The only record that I have comes from Sir Clement Le Neve Foster's '*Ore & Stone Mining*' (pages 389 to 390). I have always presumed that this was installed at Eliza's Shaft, and yet this is one of the few shafts without a bob or balance pit, which is curious for a shaft which was in excess of 70 fathoms deep.

Simon J.S. Hughes

44. Graigwen Gold Mine – Some Memories. Inspired by the article in the last N/L, (Item 54), regarding the recovery of a Crossley stationary engine from this mine, Trevor Chesters provides the following reminisces...

“Mr Michaeliones, owner of the Craigwen Gold Mine, was really named the Rev. Michael Jones. He was a dedicated Welsh Nationalist and for some reason altered the ‘J’ of Jones to an ‘i’ and consolidated his names into Michaeliones.

I first went to Craigwen Mine many years ago in my 1947 Standard 9. It eventually wouldn’t go any further up the hill, even in first, and I achieved the last 100 yards or so in reverse.

Visible in those days were the remains of earlier mining and some small buildings. The then most recent work had been done behind Mr Michaeliones’s cottage. This consisted of an adit, which was pointed out to me by Mr Hugh Edwards, who with Mr Jack Williams, leased the Clogau Mine for many years. They, in fact are the two ‘old-timers’ in the photograph reproduced in George Hall’s ‘*Gold Mines of Merioneth*’, and I surmise that they lent Mr Michaeliones their expertise in working the mine. In fact, Mr Edwards warned me of the sudden drop that exists a few yards into the adit. [*Mine explorers be warned! – Ed*’]

I searched the small dumps hopefully for gold, but only found copper minerals in the quartz. An Australian company that had the mine, I think in the 1940s, claimed the ore contained platinum as well as gold. Obviously there wasn’t enough to encourage Mr Michaeliones to continue his endeavours.

I was told incidentally that the tube mill in use at the Llechfraith Adit at Clogau for many years was originally at Craigwen. [*George Hall has since informed me that the rod-mill was in fact moved to Esgairmwyn, where it remains. – Ed*’]

When Mr Michaeliones left the mine – he wasn’t anywhere to be seen when I was there – he went to live at Pistyll, near Nevin, in Lley. I meant to visit him there, but didn’t get round to it before his death.”

Trevor Chesters

45. Welsh Ingots - In Newsletter 47, Item 53, (*Copper Ingots from the shipwreck of the SS St. George*) Barry Gamble illustrated a Cape Copper Company ingot. It may be of interest to WMS members to list the inscribed Welsh-smelted ingots held in the national collection:

Copper:

‘V & S / A’ = Vivian & Sons, Hafod Copper Works, Swansea, wreck of S.S. Benamain, 1883;

‘CCC / BS’ = Cape Copper Co Ltd, Briton Ferry Copper Works, wreck of S.S. St.George, 1882;

Iron:

‘BEAUFORT’ = Beaufort Iron Works, Breconshire, near Ebbw Vale, period 1779-1873;

‘BEAUFORT COLD BLAST’ = Beaufort Iron Works, Breconshire, near Ebbw Vale, period mid C19-1873;

‘BLAENAVON’ = Blaenavon Iron Works, Blaenavon, Monmouthshire, period 1789-1904;

‘COEDCAE’ = Hirwaun Iron Works, Hirwaun, Breconshire, period 1871-1883;

‘LLYNVI’ = Llynfi Iron Works, Maesteg, Glamorgan, period 1839-1978(?);

‘Y.FERA.ANTH’ = [Ystalyfera Anthracite] Ystalyfera Iron Works, Swansea Valley, period 1838-1885;

Lead:

‘Vivian & Sons / II’ = Vivian & Sons, White Rock Lead Works, Swansea, period 1874(?)-1924;

Zinc:

‘SWANSEA / VALE’ = Swansea Vale Co Ltd, Swansea Vale Zinc Works, Swansea, period 1876-1924.

The above list is confined to ingots; the Department of industry collections also contain inscribed examples of the products of Welsh primary industry such as rails, rolled sections, castings, bricks and refractories, and patent fuel blocks; uninscribed specimens of Welsh-smelted metals and Welsh-manufactured metal semi-products such as ingots, rolled sections, tin plate, galvanised sheets, etc; as well as specimens of raw materials such as ores, fluxes and imported metals. Specimens of metal ores, coals, slates and other minerals exploited in Wales are held by the Geology Department.

Robert Protheroe Jones - NMGW Curator

‘Tailings’

21st Century ? - Almost ! – Your editor has very nearly made it into the current century computer-wise ! The last seven newsletters have all been produced on an appropriately aged ‘PC’ (66Hz 486) using equally aged software (Word 6.0, circa ‘93/94); an additional ‘PC’ (266Hz PII) was recently acquired, and with newer software (Word 97), will make the production of this little publication a touch easier for myself – this combination is still the technology of the ‘last century’, but is more than adequate for this particular job.

Acknowledgements - Many thanks to all those who have provided me with contributions and feedback for the newsletter. Note that all items are credited to the contributor, unless submitted by your editor.

All contributions welcome - see note (below) about format. Absolutely ‘any’ field reports/notes, or news item from the local paper, T.V., radio or ‘heard down the pub’ are sought. Without these the Newsletter would cease to exist, so please don’t stop sending them in !

Mike Munro & BronwenDog 🐾

WMS Membership - Annual membership:

‘**Friends of the WMS**’ (*Newsletter only*) is £4, or (to ease administration) £8 for 2 years.

‘**Insured Member of the WMS**’ (*Covers for attendance of field trips*) is £4, and additional to the payment of £4 for receipt of the N/L.

The paid up date of both ‘subscriptions’ is shown on your address label - on the envelope you’ve just thrown in the bin !! If you are “paid up to DEC 2002” or earlier, then the date will be **highlighted in red** indicating your subs are now due, and your Treasurer, David Roe (address on front page), would be most grateful if you could pay promptly.

Copydate for the next Newsletter, **15th September 2003**, publication due October-ish ! (Please be prompt – the sooner I get the material, the sooner I can ‘go to press’ !) Articles, preferably typewritten, and ideally in electronic form, (MS Word 97 or Plain Text format) should be sent (on a 3.5” disk) to Mike Munro, (address on front page) or by E-mail to **editor@welshmines.org**

Commercial Advertisement Rates - A4/A5 Flyers or full page £30-00, half page £15-00. Please contact Mike Munro with details or David Roe if it’s a flyer.

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