

Welsh Mines Society

(Member of the National Association of Mining History Organisations)

NEWSLETTER 44 April 2001

Editorial Thoughts

1. Many thanks for all the material sent in, the volume appears to increase with the passing of each Newsletter. Due to a severe shortage of my spare time in recent months, caused by work 'commitments', several articles (some quite substantial) have been held over to the next Newsletter to reduce editing time, I have however tried to include any time dependent information. In spite of this, the Newsletter is still unacceptably late, and for this I offer my apologies.

Our Society has been lucky in that the Foot & Mouth crisis hasn't caused the cancellation of any of our meets this year - many organisations in the UK haven't faired quite so well.

Events - Dates for Your Diary

2. WMSoc. 2001 Programme

<u>Summer Meet</u> – Weekend 9th-10th June. Leaders; George Hall, Tel./Fax. (01584) 877 521 & Ian Tyler (MOLES). Location, The Lake District. Headquarters: The Middle Ruddings Hotel, Braithwaite, Keswick, Cumbria, CA12 5RY. Tel: (01768) 778 436. E-mail: reception@middleruddings.co.uk Website: http://www.middleruddings.co.uk Bed and breakfast for one night is £30 per person, with a reduction for further nights. Hotel proprietor Bernard Moore, promises superior comforts.

Saturday - Meet at **11 a.m.** at **Threlkeld Quarry and Mining Museum. (NGR NY 327 245)** This is on the B5322, signposted off the A66 at Threlkeld, 3 miles east of Keswick.

NOTE: Details of this weekends proceedings will be confirmed in the morning at Threlkeld Museum as access may be restricted due to F&M precautionary measures. (It may be that we visit other 'tourist attractions' in the area, such as Florence Mine, Honister Slate Quarry, Haigh Pit or Nenthead Mines Heritage Centre - the first two are still working concerns.)

After visiting the Threlkeld Q&M Museum we will go to Goldscope Mine, in the Newlands Valley. Meet at Little Town car park. It would be advisable to share cars from Threlkeld or Braithwaite if possible.

Saturday Evening - Dinner at **Middle Ruddings Hotel**, £13.95 per head, **6:30 for 7 p.m.** Will members please try to be punctual for dinner, as otherwise our after dinner time

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WMS Home Page http://www.mike.munro.cwc.net/mining/wms/wmsoc_hp.htm

becomes seriously eroded. Menu enclosed with the Newsletter, bookings should be sent to G.W.Hall ASAP. If members wish to give a short presentation please contact George, who will ensure a slide projector is made available.

Sunday - Meet at **10 a.m.** at **Fellside**, (**NGR NY 305 376**) on minor road 2 miles southwest of Caldbeck, for visit to the Roughten Gill Mines, the inspiration for 'Caldbeck Fells well wrought are worth London Town dear bought.'

Ian Tyler, of the Mining Museum, local expert and author of several Cumbrian mining books, has kindly offered to lead the field trips to these famous and fascinating mediaeval mines. Bring lunches. There will be opportunities to go underground.

Please Note: There is (very regrettably) a ban on *any* mineral collecting anywhere in the National Park unless a permit (from the Lake District NPA) has previously been obtained.

Autumn Meet - Weekend 8th-9th September. Organiser George Hall. Location, North Wales. Saturday: Parys Mountain. Sunday: Llandudno Copper Mines. Headquarters: The Warwick Hotel, 56 Church Walks, Llandudno, LL30 3HL. Tel: (01492) 876 823. Bed and breakfast £22.00. The proprietors, Nerys & Glenn, have kindly offered to reserve the entire hotel for our use on the Saturday night. The hotel is located on the north edge of the town, on the slopes of the Orme, near the lower terminus of the Great Orme Tramway. Our vegetarian members may like to use the Plas Madoc Vegetarian Guest House, Tel. (01492) 876 514, which is only a few yards from the Warwick.

Please contact the meet leader or check out the WMS website before travelling for latest news on the Autumn meet as F&M restrictions may affect details.

Saturday - Meet at 11:00 a.m. at NGR SH 438 906, for a walk around the mine site, which will be led by members of the Amlwch Industrial Heritage Trust.

After a picnic lunch or a visit to a local hostelry, (details from George in the morning) members can either visit Amlwch Port, meet at ~2:30 pm NGR SH 453 936, or go underground at Parys Mountain, where again in both cases we will be led by members of the Trust. The underground visit is not difficult, though there is some crawling. Those going will be expected to have suitable clothing, hard hat, and their own lights.

Saturday Evening - Dinner at **Warwick Hotel**, £11.00 per head, **6:30 for 7 p.m.** Will members please try to be punctual for dinner, as otherwise our after dinner time becomes seriously eroded. Menu enclosed with the Newsletter, bookings should be sent to G.W.Hall at least one week in advance. If members wish to give a short presentation please contact George, who will ensure a slide projector is made available.

Sunday - Meet at 10:00 a.m. at the Copper Mine Visitors Site, NGR: 771 831. This is the morning meet. The mine is able to provide tea, coffee, and biscuits. Then, after a picnic lunch, or a visit to town for refreshments, there will be an underground trip to Ty Gwyn Mine, led by members of the Great Orme Exploration Society. The only possible difficulty here is an initial descent down a vertical 18 ft. steel ladder, for which a safety rope is provided, after which the trip is a dry and easy walk.

For those who would like a more adventurous underground visit, the G.O.E.S. has kindly agreed to take members to one or other of Penmorfa Adit, Treweek's Shaft, and Roman's Shaft. These expeditions all require you to have full SRT equipment, as well as suitable underground clothes, hard hat, and lights, and in the case of the adit a wetsuit. They vary from hard to strenuous, and can include long abseils, and those wishing to go to Treweek's, in particular, must be fit and in good health. They all take several hours, and will therefore

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start in the morning. Full details will be posted at the Warwick Hotel, and it would be a great help to the G.O.E.S. if they could know on the Saturday evening who wants to go where.

Will members who wish to stay at the named hotels please make their own bookings direct, mentioning the W.M.S., as soon as convenient.

3. Accommodation

The Lakes - Mr Mole has located the following campsites:

'The Braithwaite Campsite', Tel. (01768) 778 232. 250 yds from 'Middle Ruddings Hotel'.

'The ???? Gate Campsite', Tel. (01768) 778 343. (Mole isn't too sure of its name!)

Nenthead - For those interested in exploring the mines around the Nenthead area during the week after the June 2001 field meet, (or later in the year), Mole has basic self catering accommodation available in the Nenthead/Alston area near Garrigill - Pub is 7 mins walk! For further details regarding availability and prices, contact Mole on Tel. (01594) 833 217.

Why Nenthead? See Item 49.

- **4. Travel Arrangements Lift wanted.** John A. Knight is looking for a lift from London to the Lakes meet, but needs to return by Sunday night. He will share fuel costs, and can be contacted on Tel. 0208 989 4303. He's also looking for a lift to the September meet.
- **5. NAMHO 2001 Conference.** The field meet, which was previously to be held in Ireland has been cancelled due to the F&M outbreak. The Northern Mine Research Soc. have, however, offered to host a weekend conference, entitled **'Mining History and Beyond'**. The event, to be located near Bradford, is now scheduled to occur on the weekend of the 15th and 16th September. For further details contact Mike Gill, 38 Main Street, Sutton in Craven, Keighley, Yorkshire, BD20 7HD, Tel. (01535) 635 388 and E-mail martgill@legend.co.uk, or visit the conference website at:

http://www.mroe.freeserve.co.uk/nmrs/namho.htm

6. NAMHO 2002 - Conference. "The Application of Water Power in Mining" Hosted by the Welsh Mines Society and held at the University of Wales, Aberystwyth, UK. Friday - Monday, 5th-8th July 2002. See last N/L, Item 7. It is intended that the papers of this conference will be issued as a WMS Journal.

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 here.

New Members

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

Alasdair Roberts Cooks Hill Barn, Trunch Road, Mundesley, Norfolk, NR11 8LF.

David Kitto-Smith 17 Vinson Close, Orpington, Kent, BR6 0EQ.

Field Reports

8. Winter WMS Meet - Sunday 11th March 2001. George Hall made his us all very welcome at his house in Ludlow for the WMS 'winter social' meet. Over two dozen folk

made their way through F&M plagued countryside to talk mining and buy the odd book from Messrs. Moore & Oldham. The opportunity was taken to hold a Welsh Mines Preservation Trust meeting and a first meeting of those involved in organising the NAMHO 2002 conference. After a tasty buffet lunch, we were shown slides of North Wales & Nenthead and I subjected a few folk to a tour of the CD's as reviewed in Item 31.

The meet is to be recommended, it provides a welcome chance to talk 'mining' during those lean winter months, many thanks George.

Mike Munro

News & Developments

9. Abergynolwyn Again - Alan Holmes, responds to the reports in the last Newsletter;

"Adrian Barrell's report in N/L 43, Item 9, on his recent explorations at Bryneglwys reminded me that my pictures of the winches and wagon he saw on floor 15C are reproduced in 'Slates from Abergynolwyn'. I'm surprised that the gravel crawl beneath the very bent rails on floor 20 is still passable, as it was very 'doubtful looking' when I traversed it 25 years ago!

I think that the shaft he admires does not go down to floor 75C; it is the Main Shaft which goes from the surface down as far as the Long Tunnel, at floor 50. Floor 75 is flooded and largely filled with waste rock. According to the 1874 sections, revised up to 1903, floor 75C extended from 5C to 11C but apart from roofing shafts at each chamber to the floor above there is no indication on the plans of an access shaft or an adit outside the vein.

The Long Tunnel was passable in the 1970's but recent reports suggest that it is becoming more difficult due to debris falling from an intermediate shaft situated 785 ft. from the main shaft. As the river Llaeron flows through the tunnel it will be flooded almost to the roof. Alternative access would be by laddering down the Main Shaft."

Alan continues "Forest walks set up by Forest Enterprise (N/L/43 Item 18) have opened up views of the quarry and the scenery of the valley. They engaged a field archaeologist, Dr. Caroline Earwood, to advise on the subject. One result was scheduling the Haulage Complex as an ancient monument. It consists of two 30 ft wheelpits, landing stages for wagons of waste rock hoisted from the mine, various mountings for winches, etc., all constructed of dry stone work. The machinery was removed in 1910 and it only survived the manic planting of trees because it lies within a circular walled enclosure below the level of the surrounding land. When we asked for certain trees to be removed in order to open up the views around, the response was 'well yes, we can fell them but they can't all be removed.' 'Why not?' 'They are inaccessible to our equipment.' 'So why were they planted there?' 'Well, that was in the 1950s, when the men were paid according to how many trees they planted.'

The only other surviving structure is the Alltwyllt drumhouse on the quarry exit tramway route. Wil Jones and his colleagues have done an excellent job of clearing the saplings and 'boskage' which had all but hidden it. It has been re-roofed and forms the highlight of the forest walk."

Alan Holmes, 30 Dec 2000

10. South Crofty to Reopen? Baseresult Holdings Ltd. has completed its purchase of the South Crofty Tin Mine from South Crofty plc, and aims to be producing 2,000 tonnes/year of tin in 18 months time! The South West Regional Development agency are reported to be sceptical - they aren't the only ones! *p.107, Mining Journal, London, Feb. 9, 2001*

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11. Cwmystwyth Mine & Proposed Safety Works. (Ref. N/L 43, Item 20) Simon J.S. Hughes has provided me with a copy of his letter, as sent to the Ceredigion Planning Department regarding proposed 'safety works' at Cwmystwyth Mine, which expands on his views expressed in the last newsletter. Your Editor can supply copies (by post or E-mail) on request.

12. Forest of Dean Archive.

'Some 12 years ago I bought from a book dealer a large pile of leather-bound volumes, from 1889 to 1947, being the company records of Henry Crawshay & Co., who owned all or nearly all the big collieries and iron mines in the eastern half of Dean. One reason for its purchase, at considerable cost I may add, was that I did not want so valuable and indeed priceless an archive to end up abroad, or worse, in the hands of some covetous collector who would never allow you to see it.'

'It was my intention eventually to place these papers in the public domain, and encouraged by a recent favourable change in circumstances, they are now deposited in the County Record Office, Alvin St., Gloucester, Tel. (01452) 425 294. Needless to say, the amount of material for the historian and mining enthusiast is endless, and I hope full use will be made of it. One item I remember above all others was when the pits were on a 3 day week in the 1930's and the men were half-starving. One director suggested that as a show of sympathy, the Board should take a temporary cut in salary, but the others practically choked on their whiskies at the very idea, and that was that. Economy never begins at the top, and human nature never changes.'

David Bick

- 13. Artefact Preservation Working with the Institute of Nautical Archaeology in Texas, Silicones manufacturer, Dow Corning (your Editors employer), have recently developed a process for the preservation of waterlogged artefacts, such as those found in disused mines, using silicone based chemicals. The treatment which takes only days to apply, leaves the artefact with its original properties including its pliability. This contrasts with traditional methods which can take several months, using polyethylene glycol, the artefact then having to remain in a carefully controlled environment to prevent the process from reversing.
- **14. Gold at Gwynfynydd** (Ref. Item 22, N/L #41) Roland Phelps has informed me that the old dumps are now being reprocessed through Mark Wheelers' mill at Gwynfynydd. This is apparently a commercially viable exercise, but how viable, we aren't being told!
- **15. St. Elvis Mine, Solva, Pembrokeshire** 'People may be interested to hear that I have recently confirmed the presence of argentiferous tetrahedrite at this site. It carries 9-10 wt.% Silver and is visible to the naked eye. It is present in similar amounts to Darren and other nearby old Mid-Wales silver mines, where it was THE silver carrier. A paper describing the mineralisation at St. Elvis is in preparation; this discovery reinforces the notion that it was definitely a silver mine primarily.'

John Mason

16. National Museum & Galleries of Wales - From April of this year, all eight sites of the NMGW, which include the Welsh Slate Museum, Llanberis and Bit Pit, National Coal Mining Museum of Wales, Blaenavon, now have free admission.

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.)

17. **Dylife / Dyfngwm** - 'I am working on a much bigger version of 'Dylife' - long out of print, which will include a section on Dyfngwm. As regards the latter, the various adits in the Clwyedog Gorge from Dyfngwm as far as Castle Rock have much potential for photographs with their underground waterwheels, balance bobs etc., and I would be very grateful for any pictures which may be suitable for illustrations.'

David Bick, Tel. (01531) 820 650

- **18.** Free Miners in Glamorgan Mole has noted the following statement from a writ, printed in Cyril Harts' 'The Free Miners'; "...while on 26 March 1319 twelve miners were ordered to be sent to work the iron mines of Hugh le Despenser the younger in Glamorgan." The 'miners' being Free Miners from the Forest of Dean, Mole asks where the iron mines may have been? Call Mole on Tel. (01594) 833 217
- **19. More on Caron Mine.** (Ref. last N/L, Item 30.) Graham Levins has provided a copy of a Shares Certificate for this mine, dated 1879. (Reproduced below.) If it was first worked as Caron Mine in 1877, could this be a second issue of shares?



Graham Levins Collection

Simon J.S. Hughes comments 'Could I point out that the "bron" in Bronmwyn has absolutely nothing to do with the female anatomy. Bron Caradoc, Fronfelen and Frongoch suddenly take on an altogether different meaning and suddenly disassociate themselves from the gentle slopes on which they lie. The mwyn ending is certainly the same as that found in Esgairmwyn, Llwynmwyn and Twllmwyn but this is no guarantee of antiquity.'

Peter J. Challis informs me that he thinks that he was the first to the 'find' the paper on Florida Mine, by the Royal Cornwall Polytechnic Society, which referenced Caron mine, and started off the current discussion. If of course, you know different, please do let me know.

20. Lead Mines Hill - 'The car trials hill used in the 1930's, a picture of which appeared in N/L 43, p. 31, has been identified by Ivor Richards of Aberystwyth. It was prodigiously steep, and started from the Rheidol valley near Cwm Rheidol mine, up to Ystum Tuen. Is it still open, and could any of our 4x4 types manage it?'

David Bick

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Your Editor took this way out of the Rheidol valley back in August 1995 in his 1969 Ser.IIa V8 LandRover, it looked just as rough then as it does now - the road wasn't too good either! The track is far steeper than that shown in the photograph, and provides excellent views down the Rheidol. The photograph must however have been taken (looking SE) at its northern end, (NGR SN 737 782), where it is much flatter and rejoins a metalled road.

21. Mystery Share Certificates

Graham Levins would be interested in learning the location of the following mines (and any other related information) for which he possesses their Share Certificates:

Central Van Lead Mining Co. Ltd. (1877)

Carreg Fawr Slate and Mineral Co. Ltd. (1861)

22. Mystery Mines - 'In the last N/L, Item 32, I asked for help in identifying six mines I had made field notes of many years ago, but could not recall where they were. That the appeal largely succeeded is due to Roger Bird, Dr Ivor Brown and Alan Holmes, but nobody could identify South Cader Idris. At all events, the notes are now being copied by the Royal Commission at Plas Crug, Aberystwyth, where incidentally, there is a fine library with many useful books etc. of mining and I.A. interest. They also have splendid aerial photographs of many mining areas, all freely available for consultation. What a pity it does not get more publicity.'

David Bick

David tells me that the known locations of the above referenced 'mystery mines' are as follows: (Both South Cader Idris and Blaen Y Cwm remain 'lost'!)

Llwvn Tew: SN 912 848. West of Llanidloes.

Llwybr Madin: SN 914 887. May be submerged beneath Llyn Clywedog Reservoir.

Rountain: SO 292 947. Shropshire.

Esguan Hall: SN 595 999. Slate trial near Tywyn.

23. Whatever happened to....'Mining Shares Listing'?

In response to my query in the last N/L, Item 33, Peter Challis informs me that this was originally compiled by himself and Brian Mills. Intentions to keep this list up to date were scuppered when Peter sold most of his collection. Brian mills has also been in touch, and says he still has a copy of the database, albeit in an obsolete format. We plan to ressurect the list and place on the WMS website, hardcopies may also be issued. Watch out for an update in the next Newsletter.

24. The 'Adit digging group' also Ref. last N/L, Item 33, does however remain undercover, perhaps in more ways than one!

Book Reviews & Bibliographical References to Welsh Mines & Mining

Available Soon

25. 'Quarry Hunslets of North Wales' by Cliff Thomas. John A. Knight informs us that this publication, should be available May/June, from Oakwood Press.

Book Reviews

26. 'Mines of the Sixties', Collected and Annotated by George Hall, h/b 283pp. Available from the author at 'Abilene', Sheet Road, Ludlow Shropshire, SY8 1LR. £16.99 + £2.00 p&p or through your local bookshop. ISBN 0-950-21164-8.

This is a selection from the Mining Journals Truro correspondent between 1860 and 1864. In the preface, Mr L. J. Bullen, chairman of the Cornish Mining Development Association, writes 'Mr Hall has produced a book which will be much sought after by all interested in the absorbing history of mid-19th century mining in the South West'. I can only confirm this. There are some splendid photographs, some of which I had never seen before. The 35 separate chapters are on matters as widely diversified as 'Silver in Cornwall', 'Forty years Without a Dividend' and 'Tin Stamping-more Art than Science'.

To all the contributions George has added his own useful observations, but the chapter I liked best was on Man Engines. The author really thought that these eccentric machines would sweep the board in all deep mines. However, stepping continually on and off moving platforms no bigger than a dinner-plate and in more or less darkness was hardly ideal, not to mention the very limited application. But it would be fun to get one working again, even if the Health & Safety people have a fit. It brings to mind the question, which was the deepest mine ever worked by ladders alone? Certainly over 200 fathoms, and to be faced with this at the end of every shift simply defies imagination. No wonder miners were old men at 40. I once climbed 24 fathoms on rickety rungs from adit to daylight at New Wheal Treharne in South Wales when it was raising barytes, and that was enough for me.

One small suggestion; should the book be reprinted, an index would be a useful addition.

David Bick

27. 'Underground Clwyd', Chris Ebbs, p/b A4 landscape, 72pp. £9.95 Available from Mike Moore - see advert on back page.

Described as the armchair explorers guide, takes a tour into the mines and caverns of North East Wales, includes colour photos on the cover and black and white inside. The book is broken into chapters to include, Stone, Slate, Coal and Lead Mines, Bone Caves and Sporting Caves. There are nice underground photos of Gresford and Point of Ayr Colliery. There is also a neat photo story of the Grosvenor Caving Club getting blocked into Moel Fferna Slate Quarry - be this a warning to inexperienced explorers, even the ones that should know better make mistakes. The book is well produced and is a reasonable study of many of the mines and cave systems in the area, although each site is probably worthy of its own photographic survey and study.

Mike Moore

28. 'King Copper / South Wales and the Copper Trade 1584 - 1895', by Ronald Rees, May 2000. 179 pp 22 photos / illus. University of Wales Press. SB £14.99 HB £30.00

There are numerous papers, pamphlets, theses etc on the Swansea copper trade but this is only the second book to be published on this topic in the last hundred years, the first being Grant-Francis, The Development of Copper Smelting in the Swansea District 1881. The author of this latest work, was, until his retirement, Professor of Geography at the University of Saskatchewan. Clearly an expert in this field, he writes with verve and style and has produced a work of rigorous scholarship.

During the eighteenth and nineteenth centuries a belt of coastal smelters used locally produced coal and copper ores from, Cornwall, Anglesey, Cuba and Chile to produce virtually all of Britain's copper and indeed that of much of the world. Copper brought amazing wealth and prosperity to Swansea, and fortunes were made, the remnants of which can still be seen today in the estates of the industrialists. However, this prosperity came at a price and led to conditions which would never be tolerated today. The smelting process produced not only mountains of slag but the smelters disgorged billowing clouds of toxic, foul-smelling smoke, laced with sulphur and arsenic. The pollution led to the death of crops and grazing animals and although farmers and landowners sought compensation from the copper companies, their appeals failed. The consequence was a series of dramatic 'smoke' trials that set industry against country, but such was the contribution of copper to the economy that questions about public health and the loss of attractive landscapes came a poor second best.

Eventually the prohibitive costs of shipping the concentrates shifted the balance of advantages from siting the smelters near the coalfields to locating them at the ore fields and in 1906 Rio Tinto moved its smelting operations to Spain. Today copper is mined and smelted at remote desert and mountain locations like Sudbury, Ontario and Flin Flon, Manitoba, Canada. The pollution is still there, and environmentalists may deplore the wastelands of bare and blackened rock, but there are no farmers and landowners to complain.

Tony Oldham

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Available from Tony, 'Duncavin', Riverside Mews, Cardigan, SA43 1DH. £16.49 inc. P&P

29. 'Copperopolis: Landscapes of the Early Industrial Period in Swansea' by Stephen Hughes. The industrial archaeology of Copper Smelting and Coal Mining at Swansea. 380 pages, including over 300 photographs, illustrations, maps and reconstructions. Available only in hardback, £38.30, inc. postage from: Book Sales Department, RCAHMW, Plas Crug, Aberystwyth, Ceredigion, SY23 1NJ. Tel. 01970 621229, Fax. 01970 627701, E-mail: admin@rcahmw.org.uk

A magnificent masterly volume on the industrial landscape of Swansea and particularly that surrounding the copper trade. The attention to detail is quite incredible and the whole work has been meticulously indexed by 'Tricia Moore. A few friends have criticised the handful of cigarette card sized photographs, but they are supplemented by plenty of larger prints showing detail as necessary.

My main interest in the area are the exploits of Ulrich Frosse of Augsberg who probably discovered silver at Cwmsymlog. Stephen's consideration of "my old friend Ulrich" is both accurate and thoughtful but heavily reliant on Grant Francis. Had it been published by a commercial house, rather than the Royal Commission for Ancient Monuments, the price tag could easily have doubled.

Simon J.S. Hughes

- **30. British Mining No.17 -** Simon S.J.Hughes states 'I have read a recent report suggesting that my monograph on the Cwmystwyth Mines has been out of print for some time. This is not true, Reg Budd of Repro 2000 at 19 Bridge Street, Aberystwyth, Tel. (01970) 617 290, still has stocks of the third edition.'
- **31. Mining CD's.** Three of these have recently become available, so I bought the lot, and this is what I found...
- **'100 Photographs from the Archive of the Tom Leonard Mining Museum'**. £11-99, inc. p&p. Available from Beachcomber Multimedia Productions, Tel. (01287) 676 362, E-mail sarah@beachcombercards.co.uk

This CD lives up to its title, by presenting high quality black and white images of the ironstone mines of the Cleveland area - both above and below ground. Most date from around the early 1900's, although some are earlier. It comes with a searchable index, and you can scroll through the album, or alternatively run a slide show.

'A Pictorial Tour of the Coniston Copper Mines', by David Bridge, Cumbria Amenity Trust Mining History Society, £13-00, inc. p&p.

Running under MS Internet Explorer, makes it easy to navigate through the numerous photos of the underground workings of the complex of mines in the Coniston Coppermines Valley in the Lake District. Links to plans and sections of the mines provide a useful indication as to which part of the workings you are looking at. The CD also includes photos of mineral specimens and formations within the mine, and surface tours of the features which remain as evidence of the workings from the 17th through to the 19th Centuries.

'Cononley Mine - An Interactive Archaeological Tour' by Martin Roe. £11-00 inc. p&p Available from Martin at; 8 Brighouse Road, Queensbury, Bradford, BD13 1QD.

This CD presents its contents on the Cononly Lead Mine, North Yorkshire, using Microsoft 'PowerPoint'. Both surface & underground 'tours' can be taken, the software allows an uncluttered full screen view and incorporates some 'animated' sequences making it easier to understand the historical development of the site.

Each CD has something different to offer and presents it's information in a different but valid way. If you have an interest in the mines they cover, then their purchase is recommended.

32. Welsh Mines Soc. CD Rom - With referrence to the above review perhaps it's about time the WMS produced its own CD Rom? But what should it contain? If you've any ideas or suitable material, please let me know.

Bibliographical References to Mining in Wales

- 33. 'Exploration for Metalliferous and Related Minerals in Britain: A Guide' Published by the British Geological Survey, it 'summarises current geological knowledge on Britain's prospectivity'. 'The guide includes an overview of British Geology and a brief history of exploration and discoveries in Britain since 1965'. The guide costs £20-00 and is available from the BGS at Keyworth. p.164, Mining Journal, London, Mar. 2, 2001
- **34. 'Built on a fortune in Welsh Gold'** 'Aber Eden' built in 1876 for William Pritchard Morgan, one time owner of Gwynfynydd Gold Mine, was put up for sale last December yours for a cool £535,000. *The Sunday Times*, 3/12/00, p.4.17. [Looks like you still need a gold mine to be able to afford it! Ed.]

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- **35.** 'The Treasures of the Mawddach' by Hugh J. Owen, 1950. David Seabourne kindly sent me a copy of Chapter VII, 'Gold Mining', from this publication. (pp.54-79, inc. 3 plates.) It includes the history of both Clogau and Gwynfynydd mines and explains in detail the treatment of ore using the Britten Pan.
- **36. TICCIH International Colliery Monuments List. -** The International Committee for the Conservation of the Industrial Heritage, coal mining section, has produced a 'preliminary draft' listing of 'colliery' sites from around the world, which are deemed to be of 'International Significance'. Dated 28.8.00, and running to 20+ pages of A4, the list includes Big Pit at Blaenavon and some of the nearby features including Pwll-du tramway tunnel.
- **37. 'Slate Notes from North Wales'** Andrew Hurrell reports on Pen yr Orsedd, Dorthea & Tal y Sarn Quarry amongst others. *PDMHS Newsletter, No.96, Oct. 2000, pp.10-11.*
- **38.** 'The Elmore Process' by Richard Amies, 'Below Quarterly Journal of the Shropshire Caving & Mining Club' 2000.3 pp.3-4 & 2001.1 pp.10-11. Discussion of the oil floatation process as patented by the Elmore brothers in 1989 and used at Glasdir, then Sygun and Clogau mines.
- **39.** 'Waterwheels used for Mining in Central Wales' by Colin Stansfield, from 'Wind and Water Mills, The Occasional Journal of the Midland Wind and Water Mills Group', No. 19, 2000, pp. 30-42.
- **40. Welsh Mines Preservation Trust** April 2001 Newsletter, 2pp. inc. 4 photos. Details the repair to the chimney at Maes Maelor Lead Mine, Llandegla and progress on restoration of the angle-bob at Pennant Mine, St. Asaph.
- **41. Welsh Mines Society on the 'World Wide Web'** The Society's web pages (URL on the front page) continue to receive visitors from around the world, close on 4,000 to date. It also produces the odd enquiry, often from North Americans looking for information on a Mr Williams or a Mr Jones who worked somewhere in the South Wales coalfield!

Linked to the WMS homepage is a listing of well over 100 links to web sites containing information on Welsh Mines & Mining including some excellent research resources. Links now include Ian Winstanley's 'Coal Mining History Resource Centre', John Masons index of Minerals in Wales and the 'UK & Ireland Genealogy' web site. This latter web site, in addition to thousands of reference sources, appears to contain the entire works of Samuel Lewis's 1833, 'Topographical Dictionary of Wales'! Those who have read this work will be only too aware of its many references to mining and mineral deposits.

- **42. An index to the Newsletters of the Welsh Mines Society -** Sue Cowdry has kindly offered to help to index the combined 'literary' works of this Society which extend to over 300 A4/A5 pages of information on Welsh Mines. To date, due to Sue's stirling work, N/L's Nos. 1-20 have been indexed, but I've not yet managed to get the results into its final format for distribution. Hopefully, this will soon be completed and issued with the next Newsletter. It will also be made available in electronic form on the WMS web pages.
- **43. 'Mining-History' An Internet based Discussion Group.** The archives of this group (managed by Peter Claughton) going back to late 1998, make a useful point of research and can be readily searched you don't even need to be a member, although I'd strongly recommend it.

They may not necessarily provide the precise answer you're looking for, but will often provide a useful further line of research. To take a look, go to:

http://www.jiscmail.ac.uk/lists/mining-history.html

Miscellaneous

44. 'The Coffin Levels of Mid Wales' - In Item 16 of the last N/L, Simon J.S.Hughes requested that "someone, more active than myself, writes an article on 'The Coffin Levels of Mid Wales', with photographs and surveys." He provides the following short article as a potential source of inspiration and encouragement for something more substantial:

Having visited the coffin level at Grogwynion Mine as part of the WMS Sept 2000 field meet, I would hope that it will remain accessible for the foreseeable future. According to the 1820 estate plan it appears to be "Level y graig" and I would not be surprised if it dated from at least the 17th century. Digging in here may let down the surface - be warned!

At Llwynadda and Dylife there are fine examples which are under threat by backfilling of the shafts. Will Richards noted two coffin levels at Pen Dylife, one may be that referred to in the MJ in 1857 as being 150 fathoms long.

Level yr Uch was enlarged during the 19th century, but more than half of the original coffin level survives. Its form has also been altered in the drifts; towards Pencraigddu it is blocked in the first stope, but to the west it passes through the Level Newydd and Pwllyrennaid shafts as a "semi coffin" with capstones where it has been worked above. Access to the west end is now blocked due to the reclamation scheme.

There are other levels at Talybont, Rhoswydol and Dylife which I may not have recognised as coffin levels when I was there last - about 20 years ago. Ceulan and Cwm Bychan are sites where I would expect some of the upper levels to have been driven before the introduction of powder. Gayre above Bryntail and Geufron are two other localities which I suspect would be worthy of re-examination.

What is almost certainly Bushell's adit at Cwmerfyn is another fine example but is no longer accessible since the reclamation scheme. Likewise at Bwlch; 120 foot down the Boundary shaft, the adit was once accessible. At the portal, and as far as Doran's shaft, the adit had been enlarged, but between Doran's and the Boundary shaft, it retained its original coffin level form.

The Bryn Pica adit was a foul experience 25 years ago and it has probably got no better. Relying on my memory, the first two or three hundred feet are nicely arched in masonry and lead into a couple of hundred feet of the level before it meets a shaft which is now blocked. I remember this as a small muddy level, but no more than that.

The coffin level which appears to have been Sir Hugh Myddelton's top adit, survives at Blaencwmsymlog but is dammed up and has very restricted air space. Further down the valley, the slump at the portal of Waller's adit can be discerned near the pool, this cross cut ought to be a coffin level but has not been open since the 1880's when it was used as a footway into the east end of the mine. Another coffin level from Waller's time has been driven near Garreg to carry water into the mill pond at the red lead mills.

At Tynyfron, Nantglas and Erwtomau there are tiny workings which ought to be reexamined. At Ceunant and Hafan, the far end of small cross cuts can be seen as sockets in the wall of the stope. Note that if you stand in the coffin level above Level Fawr at Cwmystwyth, facing north, the roof of the level continues into a socket on the far side of the stope.

I understand from Robert Protheroe Jones that there are other coffin levels at Cwmystwyth, one above Cross Road adit (quite probably the Day Level) and another above Kings adit running through the stope and into the ancient opencast. I am told that the Nant Trefach adit is also a coffin level but involves too much climbing for me now. More digging at the portals might get a result.

An 1845 MJ (p.440) report refers to "a cross cut known as the Blue Level, going north through all the Copper Hill veins in the heart of the old workings", prime country for coffin levels. Smythe shows the Blue Level as a 950 foot cross cut into the Comet Lode below the ancient opencast, this could account for the draught and the ladderway in the eastern drift on the Comet lode in Taylor's adit. It has been said that what is marked as Blue Level in my Cwmystwyth monograph is incorrect, despite it being in the position shown by Smythe. I have always deeply regretted not digging through the fall in the portal. It's not difficult - I just never got around to doing it.

Whilst in the Cwmystwyth area; Mr Gallachshen found the workings at West Cwmystwyth "very steep, crooked and narrow" when he inspected them for John Davis in 1878. They did so little work after this date that I suspect that these workings have probably survived. Try alongside the stream about 400 yards above the bridge around NGR SN 787 745 where there is a run of gruffy ground.

I understand that above Level Cadno at Nant y mwyn, there is something similar to a coffin level but it's now beyond my walking capability. John Hine was fossicking through these workings a few years ago and is therefore more recently familiar with these workings than myself. [Simon refers to that marked as 'Old Level' on the 1887 25" O.S., at around NGR SN 7891 4416, which leads in (through chest deep water) via a collapse to some winding passages, which in places have coffin like proportions, although in other parts there is evidence of shot holes - subsequent widening in the 1800's ? *M.P.M.*]

There are the two Roman levels at Dolaucothi - fine examples but very different to all the others mentioned here. John Mason has found a long lost coffin level "somewhere near Dolgellau" which ought to be recorded.

From a much later period; I have seen descriptions from the 1930's of the shallow workings at Bryn Tail as being stone arched in the style of the London Lead Co. The Pen y cefn adit was apparently arched in a similar style. I have seen neither.

I am told that in the dungeons of Carreg Cennen castle there is a steep and narrow stairway cut into the rock which leads down into a chamber containing a well. This must be contemporary with the castle but I have never seen a description which considers its construction, or why it doesn't fill up.

Whilst examining Nant y Creiau, I saw some very narrow workings, probably 18^{th.} century, but no coffin levels. Goginan is reputed to have a tiny level but I have never seen any workings of antiquity apart from the entirely backfilled old 26 Fm. level. Spargo's Mountain Lake mine, above Blaenceulan, was another example of an adit which was too tight to pass through. The accounts of Ceunant in the 1920's show that the middle adit was so narrow that some of the wall had to be ripped out and the bends by-passed with new driveages, I have never managed to gain access to this part of the mine.'

Simon J.S.Hughes

45. The Welsh Corrugated Iron Appreciation Society - An update of activities...



June 2000: The Welsh Corrugated Appreciation Iron Society gather for their A.G.M. at their constructed newly headquarters, (photo left) situated in a central and accessible location in Mid-Wales. [Not too far Brynambor from Mine! Ed.]

Raymond Griffiths

46. Incomplete Caption - Due to a misunderstanding of copyright laws apertaining to O.S. maps by the printer, both the map, as re-produced in the last N/L, Item 30, and its caption had to be doctored to allow reproduction and aviod further delay of an already late publication. To put the record straight it should have carried the following caption: "Caron Mine Detail from 25 inch O.S., Cardiganshire Sheet XXI.7 2nd Edition, Surveyed 1887, Revised 1904. (CdRO)". (Note that an 'untouched' version of the N/L can be downloaded from the WMS webpages - URL on the front page.)

47. Some Old and New Words

'Regarding the term '**prospection**', its use goes back further than you imagine. Jones and Lewis used it in their paper *The Dolaucothi Gold Mines I: The Surface Evidence of 1969*. (See p.255 or p.266 for examples)

Roger Bird, 20/03/01

In response to S.J.S.Hughes's comments in the last N/L, Item 58, **'Prospection'** is mentioned in my 1932 'New English Dictionary' under **Prospect**. It is marked with an asterisk, which the preface indicates is an obsolete meaning or word, and states that it means 'to look over, to survey'.

'Ore Dressing' by Richard H. Richards, published in 1906 by The Engineering and Mining Journal, refers on page 8, to 'Breaking, Crushing, Comminuting'. It makes no further reference to 'comminuting', but this evidently means 'to make smaller', a term which I'm not aware of being in common use, although I suspect one or two of our members may know otherwise!

Mike Munro

48. 'Ore' - The discussion continues ...

I am grateful for any notice of my attempt to persuade members to abjure the use of 'ore' for what is now everywhere called 'concentrate', and so avoid error, confusion, and the

derision of professionals. But the contributions of David Bick and Simon Hughes in the last two Newsletters seem to me to have made the question only more obscure.

Simon suggests that 'ore' is a homonym. I've just looked that up, and my dictionary says 'a word having the same sound and perhaps spelling as another, but a different meaning...' This might be said to have been so, at one time, but it's not so now, and it's not the point. The point is that although the word long ago changed its meaning radically, many of us are still using the old one, while the mining industry and the rest of the world have long moved on. It's high time we caught up, rather than pathetically sticking to an ancient jargon that, as Simon points out, only misleads anyone outside our little world. O.T. Jones, a professor of geology, not a miner, was already more than forty years out of date in 1922! Some of the Inspectors of Mines had been heading their statistics 'dressed lead ore' in the 1870's, and it had been American practice before then.

The 19th Century British miner followed a thousand years of custom in referring to a valuable metallic mineral as 'ore'. He did not trouble himself much with a term for the rock containing such mineral, though in mid-Wales it was sometimes called 'stuff', or 'work', because he had no need to. It did not enter into the calculations whereby he decided whether a place were worth working or not. With minimal capital expenditure, these only required the yield of mineral per fathom, or per ton, the sale price of that mineral, and the cost of stoping. Such calculations did well enough with the hand-to-mouth, ever-hopeful methods of 19th century British metal mining, but were inadequate for the newer and more sophisticated methods being developed in North America and elsewhere. There, more advanced accounting systems were developed, and the use of ever larger and more expensive machinery, to open bigger and bigger mines, meant that it was necessary to establish, as far as possible, a demonstrable reserve of mineralised ground of a grade which could be shown to be payable, and so ensure that ever increasing capital expenditure, to reduce cost-per-ton, was justifiable.

It was for these reasons that 'ore' acquired its modern, and now universal meaning, of rock in-situ containing enough valuable mineral to be worth working, and 'ore' in its old sense became, here, dressed ore, and elsewhere concentrate.

I don't know why David should want to use 'undressed ore'. For what purpose? For a hundred years or so ore has, by definition, not been dressed!

Simon who, in the last Newsletter, seemed at first to be on my side, then went on to say 'nor can I suggest that the use of ore for concentrate is incorrect.' I think this was never correct, because in the 19th century (in this country) 'ore' meant the required metallic mineral, galena, chalcopyrite, and so on, not what is now called 'ore', and by the time 'concentrate' had come into use, 'ore' had acquired its current meaning. He also says 'ore is sold to smelters'. But, unless it is, say, an iron ore rich enough to go straight to the smelter, it isn't. That's the whole point. Ore comes out of the mine, and in most cases then goes through the mill, when it is no longer ore, but is divided into concentrate and waste, or tailings. Surely that's a clear enough distinction?

In the last Newsletter the production of Bron Mwyn was given as '89.2 tons of ore.' Ought we not now to catch up?

G.W.Hall.

49. Why Nenthead?

As most of you know, I spend a lot of time (about eight weeks a year), up (or under) the North Pennines, at a place called Nenthead. I hope this brief article will explain why I, and others from all over the country, are 'hooked' on the area.

I started caving 31½ years ago, and was impressed on my first trip at what nature had created in the shape and form of the main stream of Ogof Ffynnon Ddu 2. Within a year, I was introduced to Wigpool - my first mine. The large, square pre-conceived passages which go for miles were not there! Most of what I saw was more reminiscent of the bedding planes of Eastwater Cavern, but carved out by man, before the use of gunpowder, over 320 years ago. I marvelled even more at what man had created by hand, and was thus hooked on mine exploration.

Five years on, having poked around a lot in the iron mines of the Royal Forest of Dean, and the Firestone / Hearthstone mines of Surrey, I first heard of NENTHEAD – 24 miles of horse levels, all interconnected. Trouble is, nobody I knew, knew where it was! 11 years ago, I found out, and went on my first trip.

Nenthead, England's highest inhabited village, is up the M6, past the Lake District, and turn right for 23 miles. This makes it 270 miles away, and in the top right hand corner of Cumbria, on the borders of Co. Durham, and Northumberland. It is 3 miles east of Alston, the country's highest market town, on the 'Coast to Coast' route (the shortest distance across the country, E-W), and about ½ mile to the west of the peak of the Pennines, at that point.

The area, a small part of Alston Moor, hosts what must be the largest explore-able complex of mines in the country. Lead ore (galena), and more latterly zinc ore (blende)were the main minerals extracted. The method of deposition of the ores, in veins, or near vertical fissures, mean that the underground scenery is totally different to that of the Forest. A small amount of deposition is in horizontal layers, or 'flats' which give a little scenery similar to parts of Old Ham.

The complex covers an area of seven miles, SW/NE, and six miles NW/SE, taking as the markers the furthermost points that were known to connect. Some of these are out on a limb, so this gives a false impression of the true size. To compound the issue of the size of the complex, some veins are worked by different levels, at different heights, one above the other, producing a layering of workings that used to interconnect. A portion of the complex contains three horse levels, at about 120' height apart each, with sub-levels in between. The inter-layering of workings gives sumps (underground vertical hole, i.e. rises or winzes), wooden ladder-ways (still climbable), underground whimsies (drawing sumps), and ore hoppers, all of which can be in solid rock, flat stone lined, or lumpy stone lined.

The foregoing complexity of the mines, makes possible a through trip of approximately 5½ miles, involving several changes of height, both up and down. Any caves boast a through trip that long? The above mentioned trip is by the most direct route, it could easily be doubled or even trebled! There are of course, other potential through trips to unblock, each adding another couple of miles at least.

From the foregoing, it can be seen that there is plenty of scope for the exploration of what is accessible, including many 'classic' trips. There is also plenty of scope for probing into what are now inaccessible portions of the complex: at least five major projects are underway, to my knowledge, at present. The complex is so huge, that many many more digs could be carried on, with plenty of scope, room for everyone, with the potential to extend our actual,

rather than theoretical knowledge of the area. At present, I, and the loosely knit team, are involved in about ½ a dozen different sites within the complex, with some measure of success.

The scenery is different in many ways, and very photogenic, even for snapshots! The horse levels are still railed most of the way. This is because the price of lead went down, work transferred to reworking the tips on the surface, until the price went up. All the rails, tools etc. were left underground, so work could resume when the price went up. This of course never happened! Zinc was then required, 'until someone then invented the rubber bucket', leaving rails, tools, etc. in situ. This is obviously a generalisation, but there are many relics to be seen: something scarce here in the Forest.

Because of the nature of working, and the rocks encountered by the miners, many of the horse levels are lined by dry stone arching (later dry concrete block arching, manufactured from mine waste) - miles of it. Some of this still existing arching could be over 200 years old, or more, and still standing. Most of this stone was quarried on the surface, dragged down the hillside, and then horse drawn many miles underground, and then built into arches by stone masons. Some arching, being of more recent origin, is constructed from irregular limestone chunks, a by-product of flatt workings. I feel the masons who made the arches would be more than proud to know that most of them are still doing their job, under considerable load! Some have obviously succumbed to the forces of nature. Nature always wins! Some of the arches are only of two rocks wide, some are full arches, whilst others are only one side and the roof - plenty of variety. Some of these arches are not to support the roof - they are to support tons of waste, deposited on top of them, and yet still keep a roadway open.

Formations wise, common in the area, but not here, are yellow ochreous flows, stals, and silted passage floors, sometimes 12" deep. Black straws, stals and flows also exist, but, not found at all in the Forest are whiter than white flows, stals and straws, made of calcium hydro-zincite, sometimes encrusting the wooden ladder-ways. Calcite is rarely seen as white - having seen these! Some flooded levels, where there is plenty of air flow, the surface of the water is coated in a floating layer of this mineral - it reforms very quickly. Of course in some areas, the whiter than white, calcite, blacks and yellows are all interwoven into a fine tracery of mixed colours.

Techniques wise, there is also much variety: half wetsuit, full wetsuit, abseiling, SRT, maypoleing, triple extension ladder intricacies, and of course, scaffold, pick and shovel work - something for everyone.

The 'team' referred to earlier, is a group of like-minded mine explorers, from all over the Country, sometimes there are persons from seven or eight different clubs present - all in the spirit of NAMHO.

Access to the mines is variable, from 'no-go', to 'free and easy'. Access to the major part of the Nenthead complex is on land owned by the North Pennines Heritage Trust, which also boasts a newly opened show mine. For the latter area, insurance is essential, as is membership of a suitably recognised Club. Intending visits must be notified to the Trust's office, either in person, or through the letterbox. Access to other parts of the complex is very, very sensitive, at present, and should not be taken for granted.

Fancy a visit for a week after the WMS weekend or alternatively August 10th onwards or around the end of October, contact Mole on (01594) 833 217.

Mole (AKA John Hine)

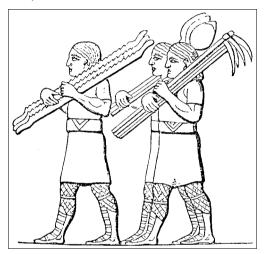
50. East Glog-fach - 'In the last N/L, Item 14, (the account of the Autumn Field Meet) there was an error, which perhaps ought to be corrected. The long waste tip from East Glog-fach was intended to take ore, which did not materialise, to the mill at Glog-fawr, not Glog-fach. This trial had been made some time between 1910 and 1920, when Glog-fawr was working, but Glog-fach derelict.'

G.W. Hall

51. Ancient Mining

Newsletter 44

Further to Item 26 in N/L #43 regarding the state of mining and metallurgy in the old world: A little after Job's account, Exodus 35.1 and 31-35, supposedly written around 1491 B.C., states that "The Lord hath filled him with the spirit of God, in wisdom, in



Miners. (Assyrian Monuments)

with the spirit of God, in wisdom, in understanding, and in knowledge, and in all manner of workmanship, and to devise curious works, to work in gold, and in silver, and in brass, and in the cutting of stone, to set them, and in the carving of wood, to make any manner of cunning work"

From within The Second Books of Chronicles 2.13, written around 1015 B.C., "And now I have sent a cunning man, endowed with understanding - skillful to work in gold and in silver, in brass, in iron, in stone and in timber..."

Note that cunning and understanding are mentioned in both accounts. I ought to point out that there are old and ancient mines which incorporate "Wyddon", and

variations thereupon, which is the Welsh equivalent. Ogo' Wyddon, Rhos Wydol and Llwyn Gwyddel are some examples from mid Wales.

Simon J.S. Hughes

52. Letter to the Editor - Criticism & Comment

"I am rather concerned that what were clearly unauthorised entries into underground workings were reported in the last newsletter. In particular I refer to Adrian Barrell's article, Item 9 'Kellows Wanderings', recording the entry into a number of quarry and mine workings. For example, Maenoffren, Votty Office Level, 'The gate was chained but there was sufficient clearance for the stoutest member.' The WMS should distance itself from such activity which, I'm sure, has never been society policy or practice and did not form part of a society event."

Peter Claughton, 7/1/01

Your Editor replies: 'The above referenced activity, which was quite clearly not an official WMS meet, was the result of 'an unfortunate misunderstanding' between myself and Adrian Barrell. In any event, the Newsletter carries a disclaimer which clearly states that its contents can in no way be taken to reflect official opinion of the Society' Hopefully this clarifies the matter which can now be considered closed.

April 2001

- **53. Change of Address -** R.A.Williams, now resides at 3 Alexander Court, 10 York Road, Southport, Mersevside, PR8 2AD. Tel. (01704) 560 538
- **54. Membership Administration** An update from David Roe your hard working Secretary;

Proof of Membership. I have been giving some thought as to how this could be achieved without it becoming an administrative nightmare and cause for yet more burning of midnight oil. To this end I have redesigned the address label to provide the key information and suggest those who need a "membership card" cut this out and if really enthused they could encapsulate it at their local photocopying shop. With familiarity with new technology will come greater sophistication – the addition of the logo etc.

Membership Records. I am currently moving all the records from my beloved AmiPro (circa 1991) to Mr Gates's Microsoft Access. Once achieved I should be able to readily extract much information that is currently only available manually – new members, changes of address etc. – a bright new dawn indeed.

'Tailings'

Acknowledgements - Many thanks to all those who have provided me with contributions and feedback for the newsletter. If you don't see your work in this edition, don't worry, it has been held over to the next one. 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

Electronic Newsletter - If you have e-mail then perhaps you'd prefer to receive the newsletter in electronic format (Word for Windows Ver. 6.0 or Word 2000). Not only does this mean you'll receive it a few days sooner but it will also help save the society costs - and David Roe a bit of time too! If you're interested, please send an e-mail to me at **mike.munro@cwcom.net** and .cc David Roe at **david@d-roe.freeserve.co.uk**

WMS Membership - Annual membership is £4, (or to ease administration - £8 for 2 years). The paid up date is shown on your address label - on the envelope you've just thrown in the bin !! If you are "paid up to DEC 2000" or earlier, then the date will **be highlighted in red**, your subs are now due, and your treasurer, David Roe (address on front page), would be most grateful if you could pay promptly.

'Copy' date for the next newsletter, **30th September 2001**, publication due October - promise! Articles (preferably typewritten and ideally on 3.5" disk, MS Word 6.0 or Plain Text format) to be sent to Mike Munro, (address on front page) or E-mail as above.

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.

Opinions expressed in this publication are those of the authors and do not necessarily reflect policy or the opinion of the Welsh Mines Society.

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