



NEWSLETTER

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Iontaobhas Oidhreachta Mianadóireachta na hEireann

Mining Heritage Trust of Ireland

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EDITORIAL

This newsletter is part of a bumper package: Newsletter; Journal; Application form for NAMHO 2003; AGM notice and nomination forms, and your personal 2003 Subscription renewal form. Please ensure that you read all the forms carefully, as we need your continued support to maintain the activities of the MHTI to date, and to expand in the future. Without your financial support the MHTI can not operate properly and so we ask you to return the form with your subscription for 2003 as soon as possible.

And don't forget the AGM in March. We venture to Silvermines area this year with an accommodation list included in this mailing.

Des Cowman dcowman@iol.ie

MHTI PROGRAMME of EVENTS 2003

(Bold print indicates finalised programmes; further details will be sent to members of events in ordinary print)

- **MHTI AGM for 2002, Saturday 22nd March 2003, Abbeycourt Hotel, Nenagh, Co. Tipperary. A field visit to Silvermines/Shallee will take place on the Sunday 23rd March.**
- **NAMHO 2003, Avondale House, Rathdrum, Co. Wicklow. 7-8th June 2003 with field and underground visits around the Wicklow/Avoca area.**
- Provisional: Spring 2003: Workshop on Geophysical techniques at Tankardstown

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Mining Heritage Trust of Ireland Ltd

Annual General Meeting

Notice is hereby given that the annual Annual General Meeting of the Mining Heritage Trust of Ireland Ltd. will be held at Abbeycourt Hotel, Nenagh, Co. Tipperary on Saturday 22nd March 2003 at 12:00 pm.

Agenda

- 1. To receive the report of the Chairman**
- 2. To receive the accounts for year end 31st December 2002**
- 3. To appoint the Auditors to the Company**
- 4. To elect up to 10 Directors**

In accordance with the companies articles; the following three directors are resigning at the AGM and offer themselves for re-election:

Nigel Monaghan; John Morris; Wayne Cox

Additional nominations for any of these vacancies from current Members should be received by the Company Secretary not less than 21 days before the date of the meeting. Any nominations should be in writing and signed by a Member and the nominated person on the enclosed form.

By order of the Board

Nigel Monaghan, Company Secretary, 11th February 2003

MHTI Journal Number 2, 2002

Included in this mailing should be your copy of Journal Number 2 of the MHTI, for the year 2002. We hope you enjoy this and find interest in the articles. NOW is the time to be thinking about Journal 3 for 2003. The Editor, Des Cowman, or any other Director will happily advise you if you think that you wish to write an article for the journal. Please start writing now and compiling the illustrations you want to use, as it always takes longer than expected, and for 2003 we intend to ensure early completion and printing of the journal.

The Journal includes a survey and description of Tankardstown Mine in Co. Waterford. The front and back cover is graced by photos of the beautiful blue secondary copper mineralisation seen in the mine. Stephen Moreton has written on these minerals below.

MINET Proceedings Proceedings of a Conference on Mine Heritage and Tourism : A Hidden Resource

The work on this new publication of the Trust is drawing to completion and it will shortly be sent for printing. Unfortunately although the Journal is a benefit of your membership subscription, the MINET Proceedings will have to be purchased by members who would like to have a copy. **Members will be able to purchase at cost price but only if ordered now with your subscription renewal.** See the subscription renewal form included in this mailing.

To allow us to order the required number for printing you are urged to return your order no later than the 28th February.

NAMHO 2003

The NAMHO 2003 conference is being held in Ireland for the first time. The conference will be located at Avondale House, situated in Avondale Forest Park, Rathdrum, Co. Wicklow. The House dates from the 1850's and is now a museum to the memory of Charles Stewart Parnell, one of the greatest political leaders of modern Irish history (1846 - 1891).

Avondale House is situated about 40km south of Dublin on the edge of the Wicklow Mountains. The location is conveniently sited for access to the main mine sites in eastern Ireland and for trips further afield. The conference talks will take place in converted church on the site, which houses tiered seating and modern lecture facilities. Display space will be available in the adjacent stable buildings.

There is some accommodation in-site at Avondale in purpose built rooms and additional B&B, hostel and camping facilities are also nearby. We have also arranged a number of field visits at some of the major mine sites in other parts of the country. This also includes a visit to largest working lead-zinc mine in Europe (Tara Mine).

The event is open to all members of NAMHO. MHTI is a full member of NAMHO (National Association of Mining History Organisations). Many visitors will come from the UK, and although planning is well advanced we are in need of further support to ensure smooth operation of all trips and events. If any MHTI members wish to volunteer their assistance with the event, please contact Martin Critchley (01-6330516 mcritchley@era.ie) or Matthew Parkes (01-6782858 matthewparkes@gsi.ie)

If you wish to join us at NAMHO 2003, please return the forms enclosed with this mailing. Continue to check the website www.mhti.com for further information.

Subscriptions for 2003

Included with this newsletter will be an invoice for your subscriptions to MHTI for 2003. You will notice from your invoice that we have increased the subscriptions (for individuals from €15 to €25 per annum and pro-rata for other classes of members). We have not done this lightly, but we have a responsibility to get the MHTI books to balance. The two factors affecting increased costs are insurance and publications.

One of the benefits of MHTI's membership of NAMHO is that MHTI members benefit for third party liability. The cost of this was relatively low until last September when the insurance company increased the premium by

over 300% from €2.50 per head to €8 per head. The whole insurance question is being looked at by ourselves and by NAMHO and I hope we can effect some reduction in the cost for 2004. I hope that you all agree that the Journal is an excellent and worthwhile record of the mining heritage in Ireland. A publication of this standard costs nearly €10 per head to print and has also contributed to our need to increase subscriptions.

Despite the increase, I hope that you can still see the benefit of supporting MHTI in 2003 and future years.

Martin Critchley, Chairperson

UNDERGROUND AT TANKARDSTOWN CO. WATERFORD.

Ike Wilson's interesting pictorial booklet ("Beneath your Feet: Tankardstown mine") noted in NL 20 will, no doubt, have attracted the attention of many with an interest in the Bunmahon mines. The spectacular blue and green post-mining formations on the walls of the workings make this possibly the best decorated mine in Ireland.

Ike describes these formations as consisting of langite (a basic copper sulphate) and connellite (a basic copper sulphate and chloride). This is partly true. In fact the chemistry of these deposits is a good deal more complex and variable. Years ago I sampled them extensively and found that the overwhelming majority are an amorphous copper-stained silica gel or copper silicate. Published laboratory work on synthetically precipitated copper/silica systems indicates that rather than a simple silicate of copper, the more likely composition is a mixture of basic copper sulphate and silica gel (Anderson & Hochgesang, 1940). This, is the probable composition of the bulk of the formations, most of which leave a gelatinous residue of amorphous silica when extracted with acid.

Most samples give positive results for sulphate and (to a lesser extent) chloride. The presence of minor amounts of langite and connellite dispersed within the gel is likely. Indeed well formed langite crystals occur in a similar amorphous blue silica/silicate gel from Dooneen mine, Co. Cork (Moreton & Aspen, 1993) in a similar environment (a mine level in a sea-cliff). Well-formed crystalline blue-green langite, as rippled crusts, often with green brochantite does occur in parts of Tankardstown mine but accounts for only a tiny proportion of the formations (possibly less than 1 % in terms of wall-coverage). Connellite I have not seen but it is a very likely associate. It certainly occurs nearby, in workings on Bonhiva lode (Moreton, 1991) and, in especially fine, deep-blue coatings, in a small level in Trawnamoe Cove.

The presence of normally rare copper minerals in these mines reflects the chemistry of their environment. That the basic sulphates langite and brochantite should be relatively common on the walls of Cork and Waterford copper mines probably reflects the absence of carbonate in these quartz/chalcopyrite veins. Otherwise malachite would most likely form. Salt from sea-water obviously accounts for the chlorides connellite and the reported atacamite-group (Moreton, 1991; Braithwaite & Wilson, 2001). The silica is probably a consequence of relatively alkaline groundwaters (silica is more soluble at higher pHs) encountering waters rendered acidic by the oxidation of chalcopyrite. Doubtless there is room for an academic study.

Finally, before anyone rushes off to collect specimens of these formations be warned, the silica gel invariably dehydrates, shrinks and crumbles to powder within weeks of removal to a dry environment. This applies whether it is the soft, "squishy" material that accounts for most of the blue and blue-green "waterfall" and rippled wall-coatings, or the harder, smooth translucent material coating pebbles, and the sides of pools, on the floor. Only the well-crystallised material, free of gel, and on the hardest, least friable, matrix survives. The best of this has already been collected. The bulk of the remaining formations are best left where they are.

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- Braithwaite, R.S.W. and Wilson, J.I. (2001) Botallackite, including good crystals, from Ireland. *Journal of the Russell Society*, 7(2), 96.
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Stephen Moreton