



NEWSLETTER

Cumann Stair na Mianadóireachta

NUMBER 5

JULY 1997

PROGRAMME: JULY-NOVEMBER 1997

July 11-14th (Fri.-Mon.): NAHMO conference (site/underground visits, lectures, etc. – report from attendees in next newsletter) near Matlock in Derbyshire.

September 21st (Sun.) {Not the date given in the issue}: National Heritage Day. Provisional programme (- full details will be notified).

East Avoca Mines (meet Whitebridge, Tigrony at 3.00) - Mr Nick Coy
Silvermines - Dr. Martin Critchley
Ahenny - Dr. John Morris or Dr John Colthurst.

Old Glengowla Mine, Oughterard - "A walk through the heritage of Glengowla Mine" between 2.30 and 5.00

"The Mining Community at Knockmahon in the 1840s- Temperance and Famine" - a walk from Bunmahon to the miners' Temperance Hall, with talks there on temperance and famine.

Kenmare Copper and Lead Mine – John Hamilton

October 4th-5th (Sat.-Sun.): Field meet at Knockmahon and Slievardagh..

Sat.: Assemble 10.00 a.m. at car park, Bunmahon [X 433 989]. Ballydwane, Knockmahon and Tankardstown introduced by Des Cowman. The Engine Houses at Tankardstown interpreted by Kenneth Brown.

Sat. evening lectures - *Cornish Engine Houses* by Ken Brown; *The Mining Company of Ireland* by Des cowman.

Sunday: Depart Bunmahon 9.30 a.m. and reassemble Ballingarry, Co. Tipperary, at 10.30. (Further details will be notified).

18th Oct. (Sat): Workshop on the ecology of mining sites.

The programme is yet to be finalised and further details will be circulated later, including a registration form, as there will be a charge (about £10 for members) for this meeting to cover the abstracts, tea/coffee, lunch and other costs in running the meeting. For those attending the workshop, the option of a field trip to Avoca on Sunday 19th will be offered. Contributions to date include:-

H. Fox - *Lichen distribution patterns at old mine sites in Ireland, with comparison to other countries.*

K. McAney - *Old mine sites in Ireland as bat roosts - a preliminary survey.*

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- 10 **FEATURE ARTICLE**
Towards a database of Irish mining sites.

[Continued over

MINING HISTORY SOCIETY OF IRELAND

MHSI

J.P. Timpson and D.H.B. Fitzgerald - *Rehabilitation of mine tailings at Tynagh, Co. Galway, Gortdrum, Co. Tipperary and Silvermines, Co. Tipperary.*

J. Durkan and J.P. Timpson - *Revegetation trials on tailings at Tara Mines Ltd., Navan, Co. Meath.*

P. Tierney and J.P. Timpson - *Natural colonisation by plants of old mine tailings at Abbeytown, Ballisodare, Co. Sligo.*

P. Treacy and J.P. Timpson - *Natural colonisation of wetlands at old mine sites in Ireland.*

B. Dallas and J. Good - *Overview of 25 years of mine rehabilitation in Ireland.*

D. Mitchell and D. Fay - *Mycorrhizal associations of recently planted trees on old mine spoil at Avoca Mines.*

J. Good - *Soil staphylinids of old Irish mine sites: their use as indicators of self-sustainability for mine revegetation.*

R. Otte and students - titles later

Further contributions on any related topic are still invited. Contact Dr. Matthew Parkes at the Geological Survey of Ireland.

1st November (Sat.): Talk by Ron Callender "Gold in the Hills" (Details in Newsletter 6).

EDITORIAL

This issue comes out a little bit earlier than normal in order to give members the opportunity over the Summer of beginning work on the survey of Irish mining sites as the first step towards the MHSI's database. Dr. Martin Critchley explains the basic procedures and outlines the intentions from page 10 to 12. A survey sheet is supplied separately for photocopying purposes.

This has meant that some articles have had to be deferred to the next issue, notably the reports of the field trips to Allihies, Glengowla and Newtownards. Apologies to Ken Brown for not getting to him early enough with proofs for the second part of his series on Cornish engine houses, dealing with Avoca. It will be carried in the next.

ITEMS RECEIVED: REVIEWS

1 Presented by Mr. Ike Wilson of Cheshire, four plans relating to Irish Base Metals Ltd. operation at Tynagh, Co. Galway .

- (a) A survey dated June 1962 on tracing paper of the surface features and topography, scale 1"=100'.
- (b) Plan of "4700 Level" dated 15 -6-1971 with thirteen revisions up to 14-12-1973; scale 1"=40'.
- (c) Plan of "4725 Level Development" dated 21-6-1971; scale 1"=40'.
- (d) Plan of "5000 Level Service Access to East Zone" dated 17-7-1974 with four revisions up to 2-7-1975; scale not legible.

Mr. Wilson has also donated a large collection of minerals and mining materials to the community at Bunmahon, Co Waterford. It is anticipated that these will be on display during the MHSI field meet there on 4th October.

2 Philip Saundry of Cornwall has kindly donated to the Society a video copy of *The Cornish Engine* which is reviewed below. This may be borrowed through Matthew Parkes. It is one of a series of three films compiled c.1950 showing Cornish engines at work and other aspects of them. Each film is available from the Publications Secretary of the Trevithick Society, as follows -

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| 1. <i>The Cornish Engine</i> | £21 |
| 2. <i>The Cornish Engine Record</i> (b & w) showing 6 steam engines. | £18 |
| 3. <i>Kitty to the Cape</i> , (c) showing engines from Wheal Kitty to Cape Cornwall. | £13 |

Prices are sterling and include post and packaging. From

Mr. C. Rowe, 3 Trenook, Church Cove, Lizard, Halspon, Cornwall TR12 7PQ (ph. +1326 290051)

REVIEW: THE CORNISH ENGINE.

This 34 minute black and white film was made in 1948, and is clear archival film with explanatory graphics extolling the history, physical principles and importance of the steam engines which, designed and built in Cornwall, became known as the "Cornish Engine". However, they were so successful in their time that they went on to be installed in mines all over the world, including many in Ireland.

The video falls into three sections. The first is largely film of engine house and machinery remains, with internal and external views of working engine houses. The importance of the engines to working tin and copper mines through counterbalanced wooden pump rods (weighing up to 100 tons and going down to 2000 feet to pump out the water) is clearly identified. Also in Cornwall the China Clay industry relied on the engines to pump water and clay out of the enormous pits.

The second section deals with the origins of pumping engines and a review of the physical principles by which steam engines work. Sixteenth and seventeenth century efforts to apply the principles deduced by Papin were successfully achieved by Savery in 1698, but never took off. The atmospheric engine of Newcomen, a Devon man, were installed throughout Britain in the early 18th century, but mainly in the coalfield areas where fuel was cheap. The lack of fuel in Cornwall was an impetus to James Watt, who added a steam condenser, to produce a more efficient engine about 1766.

Trevithick developed this further in 1812, producing the Cornish Engine through using riveted boilers to withstand high pressure steam, allowing an engine four times more efficient than Watt's. By mid-century the design was standardised. The working of this Cornish cycle is thoroughly demonstrated in this video. It shows the beam with its parallel motion to keep the piston vertical, the plug rod to open and close the valves and the cataract to govern the valve timing. The relative positioning of the different parts within the engine house is also explained.

Overall, this is an excellent film providing insight for the uninitiated into how such engines worked. It also gives a very visual impression of what in their heyday were probably unremarkable working machines to those who relied on them for pumping and winding. It is a most valuable adjunct to Ken Brown's Cornish engine review series in our Newsletter, providing meaning to the empty shells of engine houses remaining in the mining districts.

By John Morris and Matthew Parkes

3. Peter Eggleston of Shropshire writes re Nick Coy's review of his video "*The SCMC in Ireland*" in *Newsletter 4* that the discount to MHSI was not noted. The price to members, including VAT, p & p, is just stg£9.45. the video can be obtained from I.A. Recordings, P.O. Box 476, Telford, Shropshire, TF7 4RB (the **B** was missing from the postcode). [Editorial apologies].

Re. Nick's point of this being an unedited compilation of the SCMC's visits to Ireland (as distinct from the edited version shown at our AGM), Peter states - "The idea of a compilation tapes is to make the maximum amount of material available quickly and cheaply. Compilations are aimed at enthusiasts and are not intended for relaxing fireside evening viewing".

IRISH, HISTORIC MINE SHARES: an occasional series

The TASSAN LEAD MINE, later THE TASSAN MINING COMPANY LIMITED, County Monaghan.
John Morris.

This relatively little known mine was one of the largest of a cluster of lead deposits in Northeast Co. Monaghan and the adjoining part of Co. Armagh which were developed during the mid-19th C. A summary account of the currently known history of the development of the Tassan Mine is provided in *MHSI Newsletter* No.3, December 1996, while the following brief outline of its capitalisation is abstracted from articles in the *Mining Journal*. There are obviously great gaps in this, so any further information, or direction to material such as share registers and company records, would be very welcome!

