

# Mining History Society of Ireland

Newsletter

No. 2. Autumn 1996

## PROGRAMME

### National Heritage Day, Sunday 8<sup>th</sup> September 1996

*The Mining Heritage of Bonmahon and Hinterland, Co. Waterford.*

A guided tour led by Des Cowman.

Meet at 15.00 (3.00 pm) on Sunday 8th Sept. at Ballydwan Cove (about 3 miles west of Bonmahon).

This will include the unveiling of a plaque to the 19<sup>th</sup> century mining community in Bonmahon at 3.45pm. (Total duration about 2½ hours).

*Iron Mining Heritage of the Glenravel Mines, near Ballymena, Co. Antrim.*

A guided tour led by Kevin O'Hagan.

Meet at 14.00 (2.00 pm) on Sunday 8th Sept. at the Information Centre in Glenariff Forest Park, south of Cushendall. (1" map sheet 3 grid ref 205206).

*Historic Mining at Silvermines, Co. Tipperary.*

A guided tour led by Martin Critchley.

Meet at 13.00 (1.00 pm) on Sunday 8th Sept. outside Silvermines Church, Silvermines Village. (Duration about 2 hours)

*Historic Mining at Cappagh, Ballycumisk and Cosheen, Co. Cork.*

A guided tour led by Tom Reilly.

Meet at 13.00 (1.00 pm) on Sunday 8th Sept. at Ballydehob (west side of the bridge).

(Duration about 3 hours)

*Mining Heritage of the Clontibret - Cattleblayney region, Co. Monaghan.*

A guided tour led by John Morris.

Meet at 14.00 (2.00 pm) on Sunday 8th Sept. at the Car Park of the Braeside Inn, Clontibret. (Duration approx. 2-3 hours)

*The Mining Heritage of Ballycorus Lead Works, Ballycorus, Co. Dublin.*

A guided tour led by Rob Goodbody.

Meet at 15.00 (3.00 pm) on Sunday 8th Sept. at Ballycorus Lead Works, off the Kiltarnan - Loughlinstown Road (Grid Ref. O223218).

(Duration about 2 hours)

*The Mining Heritage of Glengowla East, Oughterard, Co. Galway.*

A guided tour led by Mr and Mrs P. Geoghegan.

Meet at any time between 14.30 -17.00 on Sunday 8th Sept. at Glengowla Mines, 2 miles north of Oughterard on the N59.

## Field Meets, Lectures and AGM

(Separate notice will be sent to members of these).

**October 16<sup>th</sup> and 17<sup>th</sup>:** *The Bronze Age Mines of Ross Island and the Mines of the Kenmare Valley.*

Conducted by Dr. William O'Brien.

**November:** Lecture to be arranged.

**Feb. 8<sup>th</sup> 1997:** AGM

**March:** Lecture to be arranged.

**May 17<sup>th</sup>** (Provisional) *The Newtownards - Conlig lead mines near Belfast.*

Excursion and lecture by Dr. Norman Moles, Queen's University Belfast.

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## REPORTS - FIELD MEETS

### 1 Ballycorus and the Wicklow mines, 26/27<sup>th</sup> May 1996.

"Showers on Saturday afternoon continuing into Sunday, becoming finer in the afternoon." Saturday afternoon saw us in almost continuous sunshine at Ballycorus in the company of Rob Goodbody. He outlined the origins of the smelter there and interpreted the later building work done by the MCI. We followed their 1500m long flue up the hill looking also at where the original excavations had taken place. Various theories were advanced as to the purpose of the steps up the outside of the flue - to allow visitors to savour directly the toxic delicacies issuing from it?



Waste tip and remaining mine buildings at upper lake Glendalough. Over the shoulder of the hill top right is the mining outpost nicknamed "Van Diemens Land" because of its remoteness.

That evening Rob put the afternoon's activities into perspective with a series of early photographs and maps. The first chimney for instance, was clearly evident in the 1843 O.S. map as was some of the rationale for the curving nature of the current flue. Rob then introduced us to the main source of supply to the smelter - the Wicklow lead mines.



"Van Diemens Land". Behind this wall was provision for a small engine with perhaps a winding wheel. Waste heaps nearby indicate that working was by adit and the dressing floors are below. So what was this? Let us have your guesses!

Sunday morning at the Wicklow Gap and the forecast proved accurate. Amidst showers and sunshine we were introduced by William Dick to the wild slopes of Glendesan bestrewn with spoil heaps and roofless ruins. Out of the jumble which collectively is known as Luganure mines a pattern emerged. Thanks to William and his hand out, Moll Doyle, Old Hero, Foxrock, etc., could be discerned to separate workings.

With the promise of fine weather to come we headed for the Upper Lake in Glendalough, and having viewed the mine buildings there, ascended to the desolate shoulder that nineteenth century miners nicknamed "Van Diemen's Land". The

fine ashlar ruins there proved somewhat of an enigma. As we prowled and wondered the rain intensified. Excuses were made for not joining William Dick hiking across Coomaderry back to the Wicklow Gap ("the car park closes at 6.00"). He disappeared off into the moist Celtic twilight; the rest of us headed towards the Laragh Inn, sodden but satisfied that this first field meet had been a memorable one. Our thanks to Rob Goodbody, William Dick (whose book on Ballycorus/Wicklow mines we look forward to in due course) and all those who made spontaneous contributions on the geology, glaciation, mineralogy as well as mining background.

## 2. The Mid-Antrim Mines, 15<sup>th</sup>-16 June

Under a benign blue sky we set off in the company of Kevin O'Hagan to explore the various workings on the inter-basaltic belts high above the Glens of Antrim. His maps and commentary transformed Glenariff, Cromellin, Glenravel, Ballynahowla and Evishacrow from sun-drenched wildernesses into mining entities criss-crossed by mineralogical railways. These were necessary to transport the huge tonnages of iron ore and bauxite from these remote locations to the coast for shipment. The vulnerability of the adit openings to disappearance under rockfall was apparent to us all.

That evening, using a series of unique slides, Kevin provided both wider context and further detail of what we had seen. The failed attempts at iron extraction in the early 1840s, particularly Cromellin's very odd-looking furnace near his "Newtown", gave way in 1866 to the introduction of technology from Barrow on Furnace. We saw the original agreement between landowner Benn and ironworker Fisher which was written on the back of an actual envelope! The slides brought us through the various phases of the exploitation of the mineral enriched area which had been trapped under the last basalt flow. Group shots of early twentieth century miners brought cries of recognition of long dead relatives from the local people present. A final series of slides brought us into various abandoned workings showing their condition at various stages over the past twenty years. The entrances to many of these have since disappeared.

At noon on Sunday a slightly different combination of people assembled and proceeded to Lyles Hill, west of Belfast. This circular prominence is crowned with a bronze age stone alignment and circled by a large embanked iron age enclosure. Beneath it iron and bauxite were worked at various times from the 1880s up to 1945. The last phase was for bauxite to provide aeroplane manufacturers with aluminium during the war. The roads through the mine were easy to negotiate. What was striking about them was how extensive they were in comparison to the

amount of worked area evident. The remains of sleepers and track were clearly visible throughout.

This therefore was a memorable weekend for all who made the trip. Apart from the sun and scenery various vignettes remain such as David Smith's tongue test to identify bauxite (it sticks to the tongue and is difficult to peel away!) or Kevin's provision of his own restored carbide lamps for those unwise v.s who intended to go underground at Lyles Hill ill equipped. What we will treasure however was Kevin's sharing of a quarter of a century's accumulation of enthusiast and information. Thanks Kevin - but do get it down on paper!

### EDITORIAL

Perhaps a Newsletter, by definition should be confined to news of the Society. However, anything members submit will be treated as "news" and published. So please send snippets, queries or short articles before Christmas to be included in the Spring '97 Newsletter which should be ready in late February. It would also be appreciated if those who conducted or attended any of the extensive range of mining heritage field meets on *National Heritage Day* were to send a summary of how things went.

It is also editorial policy in these early issues to publish basic resource material such as lists of mines, engine houses, etc.. The next issue will contain a substantial bibliography of writings on Irish mining history over the last 40 years.

If there is anything else that members think might be useful, let me know.

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Co. Waterford.  
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## MHSI NEWS

### MHSI on the internet!

A colourful "user-friendly" web page has been compiled by a 14 year old pupil of CBS in Tramore, Co. Waterford. Stephen Daly (along with David Dineen who designed the background) was a member of the team which took a top award in a TCD sponsored competition for web page compilation. They have now set up a company named *NetSurf* to do this commercially. The MHSI page was one of their pilot projects.

At the time of going to press we don't yet have an Internet address but should be in the system by mid-September. However, we can easily be found using one of the search engines by simply typing in the name of the society. Try it - you'll be impressed.

### Items received by the Society:

- 1 South Berehaven Mining Company Limited. Balance sheet (to Dec 1885) and Liquidator's Final Account (1888) [Donated by Rolf von Arx]
- 2 *Mining History Handbook 1991*. Published and presented by NAMHO
- 3 *Bats Underground. A Conservation Code*. [leaflet]
- 4 *Guidelines on Archival Research and Publication* [NAMHO leaflet]
- 5 *Home Office List of Mines in the United Kingdom of Great Britain and Ireland and the Isle of Man for Year 1919, and for Year 1920* [Donated]
- 6 *Gold in Britain*, by R.M. Callender, 1990, published by Goldspear Limited, 64pp booklet, colour cover, ISBN 0 951413422 [Donated by author]
- 7 *Snailbeach*. A video made by I.A. Recordings on this famous lead mine in Shropshire. Donated by Shropshire Caving and Mining Club members.
- 8 *Reports of the Board of Directors to the Mining Company of Ireland 1853-1858* (Photocopy) Donated by Stuart Chester.
- 9 *Notes on Mining in Ireland* by G.H. Kinahan, 1903. Photocopy of paper in the Transactions of the Institution of Mining Engineers, Vol XXVI, 265-293. Donated by Stuart Chester.
- 10 *The Mines of Wicklow*. Anon, London: published by C.H. Law, 131, Fleet Street; and to be had at the Mining Journal Office, 26, Fleet Street. 1856 (2 photocopies, one bound and one loose leaf). Donated by Stuart Chester.

In addition to the above donations Stuart Chester generously donated additional copies of the *Mines of Wicklow* and *Reports to the Board of Directors of the MCI*. These were sold to the highest bidders during the field meet on 27<sup>th</sup> May, and raised £25 for the Society.

Many thanks to Stuart

### Arising from Newsletter I

(i) Old Glengowla: subsequent research has clarified some aspects of the development of this mine which is currently being restored. Landowner G.F. O'Flahertie initiated mining here in 1851 but also started operations at Canrawer and Lemonfield, just west of Oughterard. The only recorded production, however, was from Glengowla's 110 tons in 1851-2. Over twenty years then pass before the three sites were acquired by the ambitiously named Galway Bay Mining Company whose only mines these were. There is no record of any ore having being sold by them.

The restorer of the 1850s mining remains would appreciate any further information or comment on any phase of mining or testing here. Contact Ms Pat Geoghagan, Old Bridge Farm, Oughterard, Co. Galway (Ph. 091-82360)

(ii) William Thomas Mulvaney: Olaf Schmidt of Herne, Germany sent the following amendments to his article:

Par. III. "They used cast iron *tubes* as linings ---" should have read "*tubbings*".

Par. IV. The date 1865 should have been 1860 and the name of the company should have been translated as "The Prussian Mining and Iron *Works* Company" (and again in last paragraph).

(iii) Logo competition: The jury is still deciding! The third entry was from Mr. Donal O'Halloran of Cork, not Michael O'Hanrahan as stated. Sorry Donal!

## RESOURCES AND SOURCES FOR THE STUDY OF IRISH MINING HISTORY

### CORNISH ENGINE HOUSES IN IRELAND

#### 2. Munster

This is the second part of Kenneth Brown's study of Cornish engines in Ireland based partly on fieldwork and measurement with additional material from the unindexed sales of Harvey's of Hayle as well as from the contemporary newspapers indicated. Further references have been added from the Reports of the *Mining Company of Ireland* to its shareholders.

The pattern followed gives extant remains first, then references to them chronologically.

##### County Clare

Ballyhickey - Remains of 20" engine house.

7" engine for sale 1840

20" engine sold to John Taylor & Co. (*Mining Journal* 12 May 1854) "for use overseas"

Kilbricken - Surviving 50" engine house and stack; cinder patch may indicate site of whim or crusher engine.

20" pumping engine for sale (*West Briton* September 1840) and again Sept.

1848 (*Mining Journal*) when described as a single acting draught engine, along with -

66" draught engine and boiler; a 27" double acting rotary pumping and winding engine.

8½ tons of old mine machinery from Godolphin mine shipped by Harveys, 9 July 1847.

October 1854, sale of "an engine and spare materials" for £350 with £300 being paid to Harveys for unspecified purpose (engine refurbishment?)

1853-'54 constant reports in *Mining Journal* from Capt. Paul on two engines.

Feb. 1854 20" from Kilbricken pumping under Crow Hill.

17 March 1855 Large Cornish boiler, engine pieces and pitwork from Harveys.

##### County Cork

Allihies - One surviving pumping and two rotative engine houses complete; bases of four others, count house and ruins of village.

Secondhand 60" pumping engine from Gurlyn mine, 1868 from Harveys.

Second hand 22" winding engine from Hallenbeagle mine, 1868 from Harveys

Second hand 26" double acting rotative, 7' stroke for pumping and winding with flywheel from Harvey's 24th Aug. 1870 (for Coom). At same time -

Second-hand 24" rotary from Great North Downs sent with crusher.

Ballycummisk -

50" pumping engine erected 1857 and a beam crushing and winding engine in 1860 both from the Perran Foundry.

12" horizontal engine, 18" stroke for stamps and dressing floors sent by Harveys 27 Aug. 1867 with boiler and outfit.

Cappagh - surviving stack of 50" pumping engine and captain's/count house.

Valves and nozzles for repairs sold by Harveys 14<sup>th</sup> July 1862. In same year -

50" engine, probably second-hand erected in engine house vacant since 1832.

Later 1862 second hand 24" drawing and crushing engine.

Coosheen (Schull Bay) - surviving crusher house and powder house. Part of bob-wall of 56" pumping engine incorporated in wall around engine shaft. This engine was supplied by

Nicholls, Williams & Co., Tavistock in 1860, engineer W. Matthews.  
 Crookhaven - surviving base of house and stack of 26" engine. Two powder houses.  
 The 26" engine erected in 1852 probably came from Barristown, Co. Wexford.  
 Dhurode - very fine powder house surviving  
 Doneen - The 60" and 22" engines from Allihies were erected here in or after 1885. Much earlier (c. 1850?) there had been a 36" engine here.  
 Glandore - Engine house (size not established).  
 Roaring Water Bay - 70/40" Woolf compound engine in 1826 from Harvey's for the Mining Company of Ireland.

### County Kerry

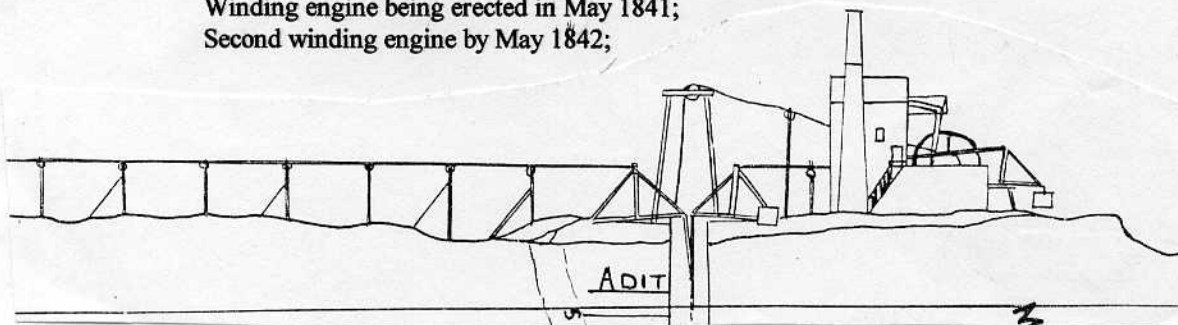
Kenmare - surviving stack of 36" pumping engine. Mentioned as being by "Harvey and West" in *Mining Journal* 8 May 1852.

### County Tipperary

Holyford - surviving stack which served two successive engines; base of stack of whim.  
 Two engines advertised for sale in *Mining Journal* in Oct. 1858/ - a 40", 10'9" stroke and a "nearly new" 20" drawing engine. In 1865 Harveys sold a new 40" pumping engine and secondhand 10"/ 11" pitwork from Gurlyn mine along with 9' lengths of pipe for the pump shaft. The 40" engine was for sale again in Aug. 1868 along with a 12" horizontal engine,  
 Silvermines - A half in-house rotative engine houses at shallee with crusher house adjacent.  
 Slievardagh (collieries) - Surviving house of small rotative engine; square stack in enclosure at Knockalonga (south of Coalbrook); to its south, square chimney of undetermined use.  
 Surviving round stack at Earls Hill along with probable powder house.  
 One enclosed rotative engine house surviving for driving mill and one half in-house rotative engine house  
 Complete 55" engine house surviving at Mardyke erected by William West in 1841; part of engine house and surrounding wall of small winding engine; office block with stone gate post inscribed *Mining Company of Ireland 1826*  
 This company's records indicate that a 40" engine was erected at Mardyke in 1826 (probably the 40" Newcomen engine of 6'-6" stroke advertised for sale from there in October 1836).  
 An engine from Mardyke was moved to Earls Hill by May 1849 and that another one had been moved there from an unspecified location (Commons?) two years earlier.

### County Waterford

Knockmahon - House of 50" pumping engine and part of whim house and stack surviving at Tankardstown (on coast). Moved there in 1851 from Kilduane (further west) where a 50" engine had been built by Harveys and designed by William West in 1837 for Purdy's shaft..  
 Surviving house of all enclosed whim/pumping engine (North Tankardstown).  
 Mining Company of Ireland Reports to shareholders indicate that the following engines were commissioned for Kilduane where no surviving engine house now stands -  
 50" engine started 17<sup>th</sup> June 1837 (West's engine, 9' stroke).  
 Drawing engine, by May 1838 (from Harvey's, 18" rotative engine, 4' stroke)  
 Winding engine being erected in May 1841;  
 Second winding engine by May 1842;



A typical Cornish surface works. This is Keeldrum, county Donegal about 1865. It was worked by the Mining company of Ireland. (GSI file 125/4/3)

# A CHECK LIST OF IRISH MINES BY COUNTY

This listing is based on the published *Mineral Statistics* and therefore only records 19<sup>th</sup> and early 20<sup>th</sup> century workings. The fact that no production is recorded in the *Mineral Statistics* for some sites and for some periods does not necessarily mean that no ore was raised and sometimes the borderline between testing and working a mineral showing is not clear.

Alternative or erroneous spellings are listed alphabetically with bracketed reference (*see -*) to standard Ordnance Survey spelling which is used throughout. Where the variant spelling is very close to the correct version it is merely noted in brackets. Sub-mines are gathered together under the main mining area in which they occur but are also listed alphabetically with a "*-see*" reference to the main area. Thus Cloan and Mountain are part of Allihies; Foxrock and Glendalough come under **Luganure**; Ballynoe and Shallee form part of **Silvermines**.

If any reader knows of omissions or other variant spellings, please let the editor know. This listing was compiled with a view to a joint publishing of the official mineral statistics for Ireland in conjunction with the Northern Mine Research Society.

## Antrim

Agnes Hill (see Shanes Hill)  
Ardclinis (Ardshins)  
Aughalun  
Ballybaley  
Ballycastle  
Ballycloghan  
Ballycraig  
Ballyhaley  
Ballyhartfield  
Ballylagan  
Ballylig  
Ballymartin  
Ballynure (Ballnvre)  
Ballypalady  
Barard  
Belfast (no mine give)  
Broughshane  
Cargan  
Carlaough  
Clegnagh  
Clontrace  
Clough  
Clogheor  
Coree

Craigahullia  
(Craigahulliar)  
Cromellin  
Cullinane  
Duneany  
Dungonnel  
Dunluce  
Elgenany  
Elginny  
Enshnably  
Essathackan/Essathohan  
Evishacrow  
Fair Hill  
Frostem  
Glebe  
Glenariff (Glengariff)  
Glenarm  
Glenravel  
Glentask  
Glore  
Gortnageeragh  
Irish Hill (and Straid)  
Island Magee.  
Kilwaughter  
Knockboy  
Larne

Lemeneagh (Limineagh)  
Libert, West  
Lyle Hill  
Maiden Mount  
Mains  
Mount Cashel  
Newtown Crommellin  
(=Crommellin?)  
Orblereigh  
Parkmore  
Portrush  
Raloo  
Rathkenny (+Dayeye)  
Red Bay  
Red Rock  
Shanes Hill (+Agnes Hill)  
Straid (see Irish Hill)  
Strangford  
Templepatrick  
Trostan  
Tuftarney (=Cromellin?)  
Tunnel  
Urblareigh  
Sundries (barytes, unspecified)  
Sundries (iron, unspecified)

## Armagh

College Mines

Cragganduff

## Clare

Ballyhickey  
Ballyvirgin

Carrahan (Carrohan)  
Castletown

Kilbricken  
Milltown

## Cork

Allihies (including Bearhaven, Cluin/Cloan, Common Moor/Marian,

Dursey Island, Kinahans, Mountain, Tranferla).

Audley (see Cappagh)  
Ballycumisk (Ballycumich)

Ballydehob  
(Ballydehab/Ballydenab )

Coosheen  
Bawnishall (Bannishall)  
Bantry [Bay] (see  
Kilevenogue)  
Bandon (see Durrus)  
Bearhaven [South] (see  
Allihies)  
Boulysalach  
Burlin (? - not identified)  
Brandon (see  
Dereenalomane)  
Browhead  
Burnt (see Glandore)  
Cappagh [Great]  
Carbery West (see  
Boulysalach)  
Cloan/Cluin (see Allihies)  
Common Moor (see  
Allihies)  
Coney (Coony) Island  
Coosheen  
Crookhaven  
Dereenalomane  
Dreenatra

### **Derry**

Ballylaggin  
Cullion

### **Donegal**

Ballyshannon  
Carrick na Horna

### **Down**

Castelward  
Conlig

### **Dublin**

Ballycorus

### **Fermanagh**

Fairtown

### **Galway**

Ballymaquiff  
Breenaun East  
Caheenglassaur  
Clements (see  
Caheenglassaur)  
Clougheor (see  
Caheenglassaur)  
Cloncurry

Derrycarhoon (Derrie  
Cahoonic/Derrycarr/  
Derrcarhown)  
Derryginagh  
Dhurode  
Dunbeacon  
Duneeen [Bay]  
Dunmanus  
Dursey Island (see Allihies)  
Durrus  
Glandore (Glamore)  
Glaun  
Glenaulin (Glenenlin)  
Glen Cove  
Goleen  
Gortacloona  
Gortavallig  
Horse Island  
Irish Consuls (see Spanish  
Cove)  
Kilbarry  
Kilco(e)  
Kileen  
Kilevenogue (Killevenogue)  
Kilmocapogue  
(?=Kilevenogue))  
Kinahans (see Allihies)

Derrynoid  
Islandmore

Glentogher  
Keeldrum

Deehomid  
Newry

Loughshinney

Cloost  
Derrynea  
Errisbeg  
Galway (?-unspecified)  
Glanmore  
Glengowla [& Cregg]  
(Glengola)  
Hodgeson (see Glengowla)

Leamcon  
Letter  
Lisheremig  
Long Island  
Marian (see Allihies)  
Maulagow  
Mizen Head  
Mountain (1 - see Allihies)  
Mountain (2)  
Mount Gabriel  
Muckcross Head  
Namore (see Glandore)  
#Ringabella  
Roaring Water  
Rossbrin  
Roury Glen  
Scart (Scait)  
Shionagree  
Skull ( Schull) [Bay]  
South Cork (see  
Ballydehob)  
Spanish Cove  
Toormore  
Tranferla [East/West] ( -  
see Allihies)  
West Cork ( - see Cappagh)

Slieve Gallion

Kilbrain (see Keeldrum)

Newtownards  
Whitespots (see Conlig)

Oughterard  
Renville  
Ternakill  
Truska  
Tynagh

**Kerry**

Annagh (see Castlemaine)  
 Ardtully (see Kenmare)  
 Castlemaine  
 Clontoo (see Kenmare)

Coad  
 Crow island  
 Kenmare  
 Ross Island

Shanagarry (see Kenmare)  
 Valencia

**Limerick**

Limerick (?-unspecified)

Oola

**Longford**

Cleenragh

**Louth**

Dundalk (see Tassan,  
 county Monaghan)

Lanbrrymuir (? - a Welsh  
 mine?)

**Mayo**

Shrouglaghy

**Meath**

Beaupark

Drumkill

**Monaghan**

Bond (see Tassan)  
 Castleblaney (see Tassan)

Coolarten (see Tassan)  
 Hope (see Tassan)

Tassan

**Sligo**

Gleniff

**Tipperary**

Ballynoe (see Silvermines)  
 Garryard (see Silvermines)  
 Gorteenadiha OR  
   Gortnadyne  
   (Gartadina/Gorteenadib  
   a) (see Silvermines)  
 Hollyford

Killeen [North] (see  
   Lackamore)  
 Kilmore (unidentified)  
 Knockanroe (see  
   Silvermines)  
 Knockanroe (Knockinoe)  
   (see Silvermines)

Lackamore  
 Shallee [East and west] (see  
   Silvermines)  
 Silvermines  
 Tipperary (? - Hollyford?)

**Tyrone**

Barrow

**Waterford**

Ballymoylan (?-see  
   Knockmahon?)  
 Ballynagigla (see  
   Knockmahon)

Bon Ivey (see  
   Knockmahon)  
 Kildowane  
   (Kilduane/Kilduanne)  
   (see Knockmahon)

Knockmahon  
 Tankardstown (see  
   Knockmahon)

**Wexford**

Barristown

Caime

**Wicklow**

Arklow (see Avoca)	Cronbane (see Avoca)	Northern of Ireland (? - in
Avondale (see Avoca)	Glenmalure	Wicklow?)
Avoca	Cullentrappark	Ovoca (see Avoca)
Ballard	(Culleniohpark) (see	Tassan (?-Co. Monaghan?)
Ballinvalley	Glenmalure)	Tigroney (see Avoca)
Ballygahan (see Avoca)	Foxrock (see Luganure)	Wicklow (gold, see
Ballygoneen (see Avoca)	Glendalough (see	Ballinavalley)
Ballymurtagh (see Avoca)	Luganure)	Wicklow (?-unspecified)
Ballynafunshoge (see	Glenmalure	
Glenmalure)	Kilmacoo	Sundries (lead and silver,
Baronets (see Tigroney)	Knockatillan	unspecified)
Barravore (see Glenmalure)	(Knockatillane)	Sundries (zinc, unspecified)
Carahan (?- Co. Clare)	Knockmalure (see	
Clonken	Glenmalure)	
Connarree OR Connary	Luganure (Langanure)	
(see Avoca)	Leinster (see Ballinavalley)	

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Unidentified County  
Hibernian (Wicklow?)

Shrelkald

Sundries, copper

## BOOK REVIEW

William O'Brien, *Bronze Age Copper Mining in Britain and Ireland*, Shire Publications 1996, (£3.95)

It is surely a tribute to MHSI member, Dr. Billy O'Brien's researches on two Bronze Age mines in Ireland that he was asked to write this volume in the prestigious *Shire Archaeology* series. In a generously illustrated 64 pages he condenses current research on the topic with an understandable emphasis on Mount Gabriel and Ross Island. However there are also chapters on the Welsh Bronze Age mines, particularly the Great Orme complex as well as on Alderley Edge near Manchester.

Further context is provided in chapters dealing with the distribution of known BA mining sites and on their likely common technology. There is also an interesting chapter on the history of research on this topic, the dating of such mines having been merely conjectural up to the first carbon date from Mount Gabriel in 1966.

Dr. O'Brien's concluding chapter considers some of the major questions not fully answered. Why has so little evidence of settlement or of smelting sites survived? Why did the mines seemingly cease production around 1400 BC just when the archaeological record shows the beginnings of an expanding metal working industry? However, he finishes by saying, "Important discoveries are confidently predicted within the next decade ---". One hopes that these discoveries will be as competently summarised then, as the current state of knowledge is by this publication.

## Other Books

J.A. Buckley of 25 Carn Brae Lane, Pool, Redruth, Cornwall TR15 3DS writes to say that, following the successful *South Crofty Underground*, two new books of underground photographs are due out this Autumn. These are *Geevor Mine Underground* and *Wheal Jane Underground*. These may be purchased from Mr. Brown at a modest £3.50p each.

Bernard R. Moore of Dolwar House, Dolybound, Borth, Cardiganshire SY24 5LX, Ph/fax 01970 871795 writes to remind members that he has a collection of books on mining history for sale and sometimes has Irish mining certificates.

## COPPER AND LEAD EXPORTS FROM IRELAND 1780 TO 1815

These are compiled from the customs' records of Irish exports which are extant in annual bound volumes in the National Library of Ireland under the title *Dublin Imports and Exports*. The exports are listed under each customs' area. Although no location is given for the ore production, it is usually possible to work out from other sources which mine was probably working at the time. Thus the copper exported from the Arklow customs' area undoubtedly came from Avoca.

Similarly other sources indicate that while the figures are neither comprehensive nor accurate, they do seem to reflect trends in ore production. (For caution on such figures, see Appendix to Cullen, L.M., *Anglo Irish Trade, 1660-1800*, Manchester 1968, p. 216-220). The "copper standard" (the average prices obtained at the auctions of copper ore in Swansea) as compiled by Robert Hunt helps to explain some of the trends. There is no equivalent for lead though its fluctuations usually followed those of copper.

### CUSTOMS' RECORDS OF IRISH COPPER AND LEAD ORE EXPORTS

	Copper ore exported (tons)			Lead ore exported (tons)
	Avoca	Others	(cu. st.)	Tons (and probable source)
1780	34	a) Lough-	£	-
81	36	- shinney?	77	-
82	78		70	-
83	37	b) Killarney?	76	-
84	20	c) Knockmahon	72	-
85	22	a) 10	71	-
86	12	a) 60	75	53 Kenmare?
87	29	a) 80	67	12 Castlemaine
88	131	b) 20	57	-
89	61	a) 12	63	35 Kenmare; ½ Dublin.
1790	993	b) 65 & c) 48	?	244 Kenmare
91	533	c) 37	?	119 Kenmare
92	744	a) 50	?	38 Kenmare
93	717	a) 2	?	53 Kenmare; 14 Caime or Clonmines
94	495		88	10 Kenmare
95	540		87	6 Kenmare
96	767		93	-
97	992		96	-
98	1028	a) 16	?	-
99	1021	a) 16	121	6 Dublin
1800	1219		133	-
01	1248	c) 21	117	25 Bonmahon
02	3763	a) 18	111	-
03	2109		122	70 (?)
04	1304	a) 3	136	37 Barristown
05	1673	b) 10	170	-
06	2225?		138	126 Barristown; 65 Kenmare
07	1812	(4mines) 302	120	269 Barristown; 20 Ballycorus
08	2204	(3 mines) 462	101	320 Barristown; 48 Ballycorus
09	2460	(2 mines) 81	143	283 Barristown; 284 Ballycorus
1810	1174	(3 mines) 132	133	120 Barristown; 250 Ballycorus
11	885	(2 mines) 495	120	80 Barristown; 92 Ballycorus
12	240	(W. Cork) 80	111	140 Barristown; 63 Bc. + 5 & 5*
13	65	(3 mines) 100	115	201 Ballycorus; 21 Ringabella (?)
14	0	(W. Cork) 175	131	30 Ballycorus; 4 Pallas. Or Ballysteen
15	77	(W. Cork) 381	118	50 Ballycorus; 7 Pallas or Ballysteen.
				66 ? - Wicklow; 1¼ Bonmahon.

That the customs' returns might have been understated is indicated by the detailed figures available for the **Associated Irish Mining Company** east side of the Avoca Valley at Cronebane and Tigroney. They were compiled by mine manager Thomas Weaver from the company's own records (NLI ms16309) and there is no reason to doubt them. The copper standard throws light on some of the fluctuations of price and profit although it does not show the instability of price within any one year (at one stage in June 1808 the price dropped as low as £97). The company abandoned mining in Avoca in 1811 though they continued to drive a deep adit over the next nine years, presumably in the hope of an upturn in prices which did not come.

<b>A.I.M.C. Copper returns from Minute Books</b>						
<b>Year to -</b>	<b>Tons Ore Sold</b>	<b>% Copper in Ore</b>	<b>£ Profit</b>	<b>% Dividend</b>	<b>£ Copper Standard</b>	<b>Customs Return (all Avoca) Tons</b>
to 25 March 1801	2156½	5.88	2109	-	133	1219
" " 02	2085¼	5.75	699	2	117	1248
" " 03	1318½	6.06	-255	-	111	3736
" " 04	2033¼	6.06	3542	5	122	2109
" " 05	1952¼	5.83	7351	12	136	1804
" " 06	2225½	5.00	4122	8	170	1673
" " 07	2175½	4.20	-2415	-	138	(not given)
" " 08	2577	4.00	-3375	-	120	1812
" " 09	243	7.00	-66	-	101	2204
" 1810	502½	6.00	-2326	-	144	2670
" 1811	376	5.00			132	885

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