

SOUTH WEST WALES INDUSTRIAL ARCHAEOLOGY SOCIETY

N E W S L E T T E R

CYMDEITHAS ARCHAEOLEG DIWYDIANNOL DE ORLLEWIN CYMRU

No.1, June 1972

Editorial Committee: P.C. Coggins, J.L. Griffiths, P.R. Reynolds.

INTRODUCTORY

In presenting this first Newsletter to members of the Society and other readers, the editors would like to say a few words about its purpose. Briefly, the Newsletter is to be the means of passing on various forms of information, and this we hope to do in a number of ways.

We want to provide a worthwhile Newsletter which will be of interest to members, encourage others to join, and show industrial archaeologists in other parts of the country that Swansea once again has a flourishing society. However, to do this we need material from our readers. Have you an interest in a particular site or industry? If so, why not think about writing it up as an article? The Newsletter isn't the place for publishing the results of lengthy original research; rather what is wanted is an article by which one member can share his knowledge and enthusiasm with other readers. Or if you feel you haven't enough for an article, send us a couple of paragraphs on your chosen subject.

And let us know if you pick up any news of IA interest - the closure or development of existing industries, the demolition or alteration of remains, the scrapping of interesting machinery or equipment, and so on. If you can tell us before the site is destroyed, so much the better: it should be possible to take some measurements and photographs. But even if demolition has taken place, still let us know: at least we can put the facts on record.

The Newsletter can also be used as a means of finding out. We have members in all parts of the region, and following a variety of trades and professions. Perhaps the problem that has baffled you is commonplace knowledge to someone else. Let us know what you are trying to find out, and we'll put a note in the next issue.

Articles, news, queries: ~~please send all your contributions to:~~
Paul Reynolds, 12 Beaconsfield Way, Sketty, Swansea, SA2 9JR.
(Telephone 21525). The next issue should appear in October.

SOCIETY NOTES

Committee and Officers. Since we haven't managed to produce a membership card yet, a full list is provided for the benefit of members:

Hon. President: Professor Hugh O'Neill.

Chairman: R.O. Roberts.

Secretary: P.C. Coggins.

Treasurer: J.L. Griffiths.

Committee: F.G. Cowley, J.M. Davies, D.W. Hopkins, C.P. Jones,
W.H. Morris, A. Rees, P.R. Reynolds, W.I. Roberts,
M. Williams.

Record of Meetings. The following meetings have been held so far:

- 20 October 1971: D. Morgan Rees. The industrial archaeology of Swansea and South West Wales.
- 2 December 1971: Clive Trott. Local copper-smelting sites: a vanishing heritage.
- 17 February 1972: J.M. Davies. Some early copper-smelting sites in the Swansea area.
- 23 March 1972: Raymond Bowen. Aspects of South Wales railway history.
- 24 April 1972: Geraint Jenkins. The woolen industry of South-West Wales.
- 12 May 1972: Douglas Hague. Lighthouses.
- 13 May 1972: Douglas Hague gave a specialized lecture on IA techniques, and an excursion arranged by the Society took place to visit Scott Pit, Ynyspenllwch and Ynyscedwyn.

The average attendance was about 50 persons.

Most of these lectures took place at the Royal Institution of South Wales and all have been financed by the Extra-Mural Studies Department. The Society would like to put on record its gratitude to the Department, and especially to Mr G.I. Lewis, for all their help and encouragement. They are required by the Department of Education and Science to make a small charge for any meetings or courses they arrange - hence the 10p admission fee which some of our paid-up members may have been wondering about.

Constitution. The following draft constitution was drawn up by a sub-committee and has been discussed in full Committee. It is proposed to offer it to the Society for ratification at a meeting next autumn. Would any members who wish to make any observations on the draft please contact the Secretary.

1. The name of the Society shall be "The South West Wales Industrial Archaeology Society" - "Cymdeithas Archaeoleg Diwydiannol De Orllewin Cymru".
2. The region covered by the Society shall be the coastal area between Kidwelly and Port Talbot together with its immediate hinterland (as shown in the map on page 205 of K.J. Hilton ed., The Lower Swansea Valley Project, London, 1967).
3. The aims of the Society shall be within its region:
 - (a) the discovery, field study and recording of industrial remains;
 - (b) where appropriate, to institute measures aimed at preserving remains of outstanding importance;
 - (c) to encourage research into the history of industry, transport and technology;
 - (d) to arrange meetings and lectures on subjects relevant to its field of interest;
 - (e) to encourage publication of the results of investigations by members, and to publish reports of the Society's activities periodically in a Newsletter.
4. The business of the Society shall be conducted by a committee comprising four Officers and ten ordinary members, with powers to co-opt extra members when required. At a committee meeting six shall constitute a quorum.

5. The Officers of the Society shall be the President, Chairman, Honorary Secretary and Honorary Treasurer, who are to hold office for two years and to be eligible for re-election at the A.G.M. The ordinary members of the Committee shall be elected annually at an A.G.M. The Annual General Meeting shall be held in March.
6. An Extraordinary General Meeting of the Society may be called by a request in writing to the Secretary by 10 per cent of the membership, submitting a notice of motion. The Extraordinary General Meeting must take place within 28 days of receipt of notice by the Secretary.
7. A minimum of 14 days written notice shall be given of an Annual or an Extraordinary General Meeting. At such a meeting a quorum shall be one-third of the membership of the Society, each member shall have one vote, and a motion shall be deemed to be carried by a majority vote of the members present. In all cases the Chairman shall have the power of a casting vote, should it be required.
8. The subscription to the Society shall be £1 per calendar year, or 50 pence in the case of students and senior citizens.
9. Any amendments or changes to the Constitution must have a two-thirds majority at an Annual or an Extraordinary General Meeting.

NEWS ITEMS

South Wales Narrow Boat Rescue. Readers will be interested to learn of the proposed rescue of a South Wales Narrow Boat by the National Museum of Wales. Very few of these canal boats remain, and all are sunk and rotting. The boat to be salvaged lies just below the Lock House at Tonna, on the Neath Canal.

The rescue operation is being organised by Mr R.G. Keen, a Research Assistant in the Department of Industry. The plan is to pump out the boat, repair the leaks, and float it downstream to a suitable loading site whence it will be transported on a low loader to the new Industrial and Maritime Museum at Cardiff Docks.

The project has been planned for some time, but delay is due to the need to erect a fenced compound at the new Museum site, and construct a storage tank. The boat will have to be immersed in the tank and then slowly dried out prior to permanent preservation of the timbers. It will probably become one of the exterior exhibits.

The boat to be rescued is almost certainly the only South Wales canal boat in a reasonably good state of preservation. It was built about 1880 and was used for maintenance work on the Neath Canal. (From: Sou'Wester, May 1972, published by the Inland Waterways Association: Southwestern Branch.)

Coalface 1900 is the name of an exhibition of old photographs of the coal industry, arranged by the Welsh Arts Council. The exhibition is touring South Wales and may be seen at the following places and dates:

31 May - 7 June <u>and</u> 13 - 17 June	Central Library, Mountain Ash
24 June - 15 July	County Museum, Haverfordwest
19 - 26 August	Atlantic College, Llantwit Major
2 - 23 September	GLYNN VIVIAN ART GALLERY, SWANSEA
28 October - 18 November	University College, Cardiff

Fieldwork in Carmarthenshire. During the summer the Carmarthenshire Antiquarian Society are investigating a late 17th century iron works at Cwmbran, near Llangadog. It is the smallest in the county, but of interest because it is the first ever to be dug. A preliminary dig last year revealed quite substantial remains, and it is hoped to clear up the excavation this summer. The Carms. Antiquarian Society are hoping to arrange a formal visit to the site on August 19, but at the time of writing final arrangements are not known. It is suggested that anyone interested contact Mr W.H. Morris, Sunnymead, Station Road, Kidwelly.

Useful Publicity for the Society has been given by the journal INDUSTRIAL ARCHAEOLOGY. In their latest issue (May 1972) they report the formation of the Society and give an account of the meeting at which Mr Clive Trott spoke.

Found. Did anyone leave a black umbrella on the coach when we visited Ynyscedwyn on May 13? If so, Jeff Griffiths has it, and would like to return it to its rightful owner. Please contact Mr Griffiths at the University Registry. (Telephone: 25678 Extension 364.).

Information Wanted.

1. JONATHAN KENDALL. He was associated with a furnace in Cardigan, and later with copper works in Penclawdd and Neath (? Cheadle Co.). Anyone who knows anything about him is asked to contact Mr D. Morgan Rees, National Museum of Wales, Cardiff, or our Chairman.
2. PETOLITE YARD. What is the origin of this name for what is now a general store in Swansea Docks? Replies please to Professor E.T. Nevin, Dept. of Economics, University College of Swansea.
3. JOHN FREDERICK SPENCER (1825-1915). Known to be the first Managing Director of the North East Marine Engineering Co. Was he the same man who was engaged in marine engineering in Swansea in about 1850 with the Swansea Iron Shipbuilding Co.? It is thought he was related by marriage to Henry Bath.
4. ALFRED STURGE. Any information on him needed. He is thought to have been a Quaker and a shipbuilder at Swansea about 1850. Any information on 3 and 4 to the Chairman, who will pass it on to enquirer, Mr R.S. Craig of University College, London.

MORRIS CASTLE

Morris Castle (SS662968) was built between 1768 and 1775 by John Morris, younger son of Robert Morris (d. 1768) and founder of the township of Morryston. The Morris family played a prominent part in the first phase of the industrialization of the Swansea Valley. Robert Morris, as the active partner in the firm

of Morris, Lockwood and Co. acquired Dr Lane's Llangyfelach Copper Works in 1727 and in 1745 opened up the more extensive Forest Copper Works. The copper smelting process required a regular and abundant supply of cheap coal. To guarantee such a supply Robert Morris had spent considerable sums of money between 1727 and 1768 in acquiring existing coal mines and opening up new ones in the Treboeth, Landore and Plasmarl areas. It was to help house the growing number of colliers engaged in the firm's pits that John Morris built his 'Castle'.

It was a rectangular building consisting of four square corner towers, connected by lower ranges of buildings all of which enclosed an inner courtyard or quadrangle. Each corner tower had a basement and three storeys and the rooms on each floor were supplied with a fireplace which connected with a common flue. The lower ranges of buildings connecting the towers had basements and two storeys.

The building could boast of no costly or artistic refinements. Apart from a limited use of brick, local stone was used throughout. A cheap decorative effect was obtained by the use of blocks of black slag, a by-product of the copper smelting process.* These blocks were used as an exterior string course at floor levels and as coping stones for the battlements. Despite its medieval appearance, the Castle was in fact a block of flats, designed, according to Walter Davies who was writing in 1814, to accomodate "40 families, all colliers excepting one tailor and one shoe-maker who are considered as useful appendages to the fraternity".

The Castle's remote position and the absence of a water supply could not have made it popular with the colliers from the Pentre and Landore pits who had to toil up Graig Trewyddfa after a shift underground. By 1880 the castle was in ruins. Quarrying around the building had brought the frontage with its two southern towers toppling down. Now all that remains are the ruined walls which belonged to the two north towers.

The Castle in its hey-day figures in the work of two famous artists: in J.C. Ibbetson's "Coal staithe at Landore" (now in a private collection) and in John Warwick Smith's charming watercolour "Morris Castle" now in the Glyn Vivian Gallery, Swansea. Both works belong to the year 1792. The two artists may in fact have journeyed into South Wales together.

The Castle has long been a landmark which has puzzled the stranger, and the remains of it form an interesting example of early industrial housing, the sole surviving eighteenth century industrial monument in the Swansea Valley. It was recorded on CBA Record Cards by the previous Swansea IA Society in the 1960s.

References

- W.H. Jones, History of the Port of Swansea (Carmarthen, 1922), p.342.
- Walter Davies, General View of the Agriculture and Domestic Economy of South Wales. (London, 1814), vol.1, p.134.
- J.M. Davies, 'The Morris Family and Swansea', Gower, v, 1952, pp.26-30.
- F.G. Cowley, 'Curiosity Castle', South Wales Evening Post, 10.4.58.

F.G. Cowley

*Editor's Note: Copper slag has been used on a number of

buildings in the Swansea area, e.g. houses on Neath Road, the wall around Singleton Park. Would anyone be interested in producing a list, perhaps with a view to publication in the Newsletter?

NEATH ABBEY COPPER AND IRON WORKS SITES

The construction of a new road in the Neath valley has resulted in the razing of an important site of industrial archaeology at Neath Abbey. The new trunk road from Aberdulais to Llandarcy will pass directly over the sites of former copper and iron works which once stood not far distant from the ruins of the Cistercian Abbey.

Copper smelting was first begun at Neath in 1584 by the Society of Mines Royal. It appears that the original site was at Aberdulais to which the German, Ulrich Frosse, was sent as manager. In 1694 some London merchants founded a copper-mining company which set up a furnace at Neath Abbey (SS734970). About 1710 a mill for the smelting of copper and lead ores was established by John Pollard and the famous Dr John Lane, but it proved an unprofitable venture for these partners. By 1785 the Neath Abbey works had changed to the smelting of iron and it seems that it was last worked by Williams, Foster and Co. in 1881. It is interesting to note that, until quite recently, the whitewashed manager's house still stood among the ivy-covered ruins at Neath Abbey, a reminder of the secrecy which surrounded the smelting processes in the early days and which required these metallurgical wizards to live on the premises.

Adjacent to the Mines Royal site were the remains of the Crown Copper works (SS 732967) erected about 1800 by a Birmingham Company. The company issued a well-known copper token, to the value of one penny, bearing the legend "Birmingham Crown Copper Company Birmingham and Neath 1811". These works too were abandoned in the latter half of the nineteenth century. The plentiful supply of native coal, near to the seaboard and so allowing copper-ores to be shipped from Cornwall, also attracted smelters from Cheadle who came to Neath Abbey about 1750. The Cheadle Copper Works (SS737971) was taken over in the nineteenth century by the Quaker ironmasters who had established their operations on the banks of the nearby Clydach. The site was then employed for ship-building and it was here at Neath Abbey that the first iron boat in Wales was launched.

By next year traffic will be carried over the sites whose now-demolished ruins had testified to more than two hundred years of early industrial enterprise in the Neath locality.

References.

Rees, W., Industry before the Industrial Revolution. 1968.

Neath Antiquarian Society Transactions. 1937-39.

The author has also drawn on the researches of Mr Clive Trott, M.A.

J.L. Griffiths

YNYSCEDWYN IRONWORKS - AN HISTORICAL OUTLINE

Considered one of the oldest ironworks in South Wales, definitive evidence of the site dates from the late 17th century, and it is referred to in several leases, deeds and law suits in the period 1711-1730. There is a possibility that a blast furnace may have existed on the site as early as 1611, but this has yet to be substantiated.

Little is known about the Ironworks during the rest of the 18th century, apart from isolated production figures and occasional names of owners of the site. By 1811 still only one furnace existed on the site. However, its importance was recognised by a branch canal being built to the Ironworks from the Swansea Canal by 1800 - the Canal Bach, which ran alongside what is now the Anglo-Celtic Watch Company cricket field.

David Thomas became Works Manager in 1817, and George Crane the owner of the site in 1823. These two perfected the use of anthracite for smelting iron, using a modification of Nielson's hot blast technique (previously charcoal or bituminous coal from adjoining parishes had been used). Attempts to use anthracite before this date had failed, and their method was first used successfully in 1837, Crane reporting on the method to the British Association meeting held in Swansea in 1838. As a result of this technical development, the number of blast furnaces increased to seven by 1846.

Not only was this the most prosperous period for Ynyscedwyn Ironworks, but it stimulated the industrialisation of the west Wales anthracite valleys - especially the Amman and Gwendraeth. David Thomas went to America in 1839, and became one of the leading industrialists in the Pennsylvania anthracite iron industry.

After 1850 the iron industry of South Wales entered a period of decline, due to competition and the uneconomic location of many ironworks along the Northern Outcrop of the Coalfield - after 1860 never more than two furnaces were in blast at Ynyscedwyn. During this recession the chimney stack (dated 1872), and an accompanying building were built to produce steel, although the building was never completed and all that exists today are two arched walls. The Ironworks finally closed in 1877.

In 1889 a 3-mill tinsplate works was erected at Ynyscedwyn, on the site of the old Ironworks. This tinsplate works, despite various owners and fluctuating fortunes, remained in operation until it closed in 1946. The foundations, and part of the old building can still be seen today. After the last War part of the Works, although in a dilapidated condition, were used as an iron foundry for some years.

These notes were assembled from a variety of sources, some of the more important of these are listed below:-

Brooke, E.H., Chronology of the Tinsplate Works of Great Britain. 1944.

Davies, J.H., History of Pontardawe and District. 1967.

Lloyd, J., The early history of the Old South Wales Ironworks, 1760-1840. 1906.

Minchinton, W.E., The Place of Brecknock in the industrialisation of South Wales, in Brycheiniog, Vol. VII, pp. 1-70, 1961.

Morgan Rees, D., Mines, Mills and Furnaces, 1969.

Williams, D.T. The economic development of Swansea and the Swansea District to 1921. 1940.

P.C. Coggins

LITERATURE

As well as visiting industrial sites, measuring them, photographing them, and generally tramping around them, the good industrial archaeologist needs to spend time with his books. We intend, therefore, to include in the Newsletter notes on recently published books and articles - and also some older books that it is worth drawing attention to.

Remember, if you don't want to buy a particular book, but would like to have a look at it, ask at your local library. Even if they haven't a copy in stock themselves, they will still be able to borrow one for you from another library. And the more requests libraries get for IA books, the more likely they are to buy books on the subject and so build up a stronger collection.

A useful book for those who feel they lack some of the necessary know-how in IA is John Pannell's THE TECHNIQUES OF INDUSTRIAL ARCHAEOLOGY (Newton Abbot, David & Charles, 1966). In less than 200 pages the author explains the use of written, printed and verbal sources, surveying techniques, measurement, the development of industrial design, and the keeping of records. The work is well illustrated and includes a bibliography and glossary. Unfortunately the book is out of print at present but the publishers hope to reprint it later in the year. Meanwhile copies are available in the University Library, and the Central Lending Library.

A valuable source of information on the Swansea area is THE LOWER SWANSEA VALLEY PROJECT: edited by J.K. Hilton (London, Longmans, 1967). Originally published at £4.00, copies are now available at only £1.00 (postage paid) from M.G. Farrington, Highfield, 87 Cimla Road, Neath. The book is mainly concerned with the work of the Project itself, but chapters 2 and 3 contain a wealth of information on the rise and fall of industry in the Lower Swansea Valley.

A general work that has recently been published is INDUSTRIAL ARCHAEOLOGY: AN HISTORICAL SURVEY; by Arthur Raistrick (London, Eyre Methuen, 1972. £5.50.). Chapters cover all aspects of IA from the earliest times (and that means pre-Roman: industry didn't start with the Industrial Revolution) till the present day. As well as surveys of different industries, Dr Raistrick also deals with excavations and field work, the problems of preservation, and the role of museums. The price may seem rather high, but one must be prepared to pay that today for over 300 pages of text and a generous ration of plates.

Two interesting articles have recently appeared in periodicals. One is by W. Gerwyn Thomas, the other by D. Morgan Rees, both of the National Museum of Wales. The references are:

Thomas, W. Gerwyn. Preservation of industrial relics. In Amgueddfa: Bulletin of the National Museum of Wales, no.10, 1972, pp.2-8.

Rees, D. Morgan. Some aspects of industrial archaeology in Wales. In Transactions of the Cymmrodorion Society, session 1969, pt.2, pp.179-194 & session 1970, pt.2, pp.156-176.

Mr Thomas's article is a well-illustrated description of some of the industrial relics that have been preserved either in situ or awaiting the opening of the proposed Industrial and Maritime Museum in Cardiff. Everything described comes from the eastern part of the coalfield, but is none the less interesting for that. Most of our readers will no doubt have pleasant memories of Mr Rees's lecture in October 1971. They will find much of what he said on that occasion in his article, but also a good deal more, especially on the iron industry of West Wales and slate quarrying in the North. A site he pays particular attention to is Gurnos Tinplate Works.

Finally, a preview of a book to be published in the autumn. Dafydd Tomos's MICHAEL FARADAY IN WALES contains the journal Faraday kept during his three visits to Wales in 1819, 1822 and 1848 as well as a biography and some of his letters. Mr Tomos is a retired chartered electrical engineer from Brynaman. The book is due to be published on October 30th at £2.75, but copies may be ordered ~~before that date~~ at the special pre-publication price of £2.25 from the publishers, Gwasg Gee, Chapel Street, Denbigh.

