

SOUTH WEST WALES INDUSTRIAL ARCHAEOLOGY SOCIETY

NEWSLETTER

CYLCHLYTHYR

CYMRITHAS ARCHAEOLEG DIWYDIANNOL DE ORLLEWIN CYMRU

No. 23, November 1979

Editorial Committee: F.G.Cowley, P.R.Reynolds, W.I.Roberts

Price to non-members: 15p

FORTHCOMING EVENTS

THURSDAY
NOVEMBER 15

Professor T.R.Owen
Geology of the Swansea Valley section of the South Wales Coalfield

Two Lectures on the Port of Swansea

THURSDAY
DECEMBER 20

Col. Ll. Bevan

THURSDAY
JANUARY 10

Mr D.G.P. Chatfield

Two lectures which look at the history of the port of Swansea, the development of the docks and the shipping which has used the port. The two speakers will each approach the subject in a different way and shed light on differing aspects of the subject.

All these meetings will be held in the Royal Institution of South Wales (Swansea Museum) and will start at 7 p.m. Admission will be free. Please note these events, come along, and bring a friend.

NEWS AND ANNOUNCEMENTS

Industrial Archaeology Magazine is a new magazine on IA. The first issue is reviewed on the back page of this Newsletter. The normal price is 65p per copy (published quarterly) but members of the society may take advantage of our having obtained a bulk supply and obtain copies at 55p each.

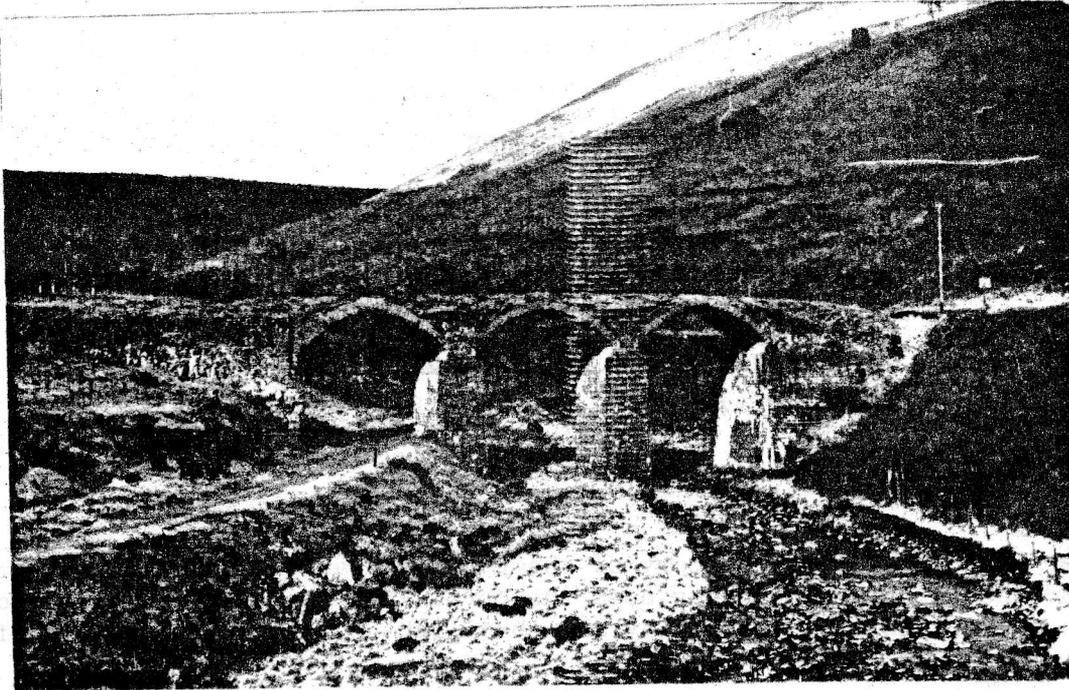
Railway Books. We have received an extensive list of books on railways, trams, canals, industrial archaeology etc. for sale from the Mumbles Railway Company, Gower House, Eldon Road, Cheltenham Spa. Well worth browsing through - it could help solve a few Christmas present problems.

Scott's Pit. The first phase of the project for the investigation and restoration of this scheduled monument came to an end in September. The site has now been made safe for the winter, but steps are actively being taken to open the second front, i.e. phase II. It is hoped to include a fuller report on progress in recent months in our next issue. In the mean time, Cliff Alden and Jim Lerwell deserve the warmest thanks of the society for the work they have put into keeping the project moving these last few months.

Mr R.P.Roberts. We were sorry to read of the death last June of Mr R.P. Roberts, formerly Headmaster of Pontardawe Grammar School. His thesis 'The history of coal mining in Gower from 1700 to 1832' was awarded the degree of M.A. by University College, Cardiff in 1953 and is a fruitful source of information on the subject.

PELENA BRIDGE

It was announced in May that Neath Borough Council had invited the army to demolish a fine tramroad bridge which formerly carried Parsons' Tramroad across the River Pelena near Tonmawr. The structure had become dangerous, and despite warning notices, people were continuing to walk across it. As will be seen in the photograph reproduced below, the arches had taken on a distinctly triangular appearance which meant that they had started to spring: in time this would have led to their collapse in any case. The piers of the bridge appeared to be strong enough, but even so, their condition has not been improved by the fact that the occupier of a nearby house has been using stone from them to construct a rockery. The hard winter of 1978/79 accelerated the deterioration of the bridge and by this spring it was in a worse condition than in the photograph which was taken some years ago. It had proved impossible to trace the owner of the bridge, and so the Borough Council claimed that demolition was a course of action necessary for public safety.



As can be seen, the bridge was a handsome piece of work and opposition to its demolition was soon aroused. However, the cost of making it safe was stated to be in the region of £10,000, feeling in Tonmawr was divided over whether or not the bridge should be preserved, and West Glamorgan County Council refused to become involved. Consequently, on Saturday 14 July the Royal Monmouthshire Engineers moved in and blew up the bridge. That should have been the end of it, but in fact only the arches were demolished and the piers are still standing. Neath B.C. is still concerned about them and is investigating the possibility of destroying them as well.

The Pelena Bridge (map reference SS 816969) formed part of Parsons' Folly, an early railway built to carry coal from Glynccorrwg to the Neath Canal at Aberdulais. Its story has been told authoritatively by Mr Harry Green, 'Parsons' Folly - the Glynccorrwg Mineral Railway' (Transactions of the Neath Antiquarian Society, 1977, 78-88). It was built by Robert Parsons and Charles Strange in 1839-1843 and first carried coal in 1840. The engineer of the railway - and, presumably, the designer of the bridge - was William Kirkhouse. Construction of the bridge must have been completed by 1841 for at the end of that year an engineer from Croydon inspected the line in connection with an attempt by Strange and Parsons to raise a mortgage on it, and reported that the bridges at Tonmawr and Fforchdwm (the Pelena bridge) were "creditable in design and execution". In 1852 the section of the railway from Blaen Cregan near Glynccorrwg to Fforchdwm was dismantled, and this would mean that the remainder of the line would probably have terminated just short of the Pelena bridge. The rest of Parsons' Folly closed in 1861 with the opening of the South Wales Mineral Railway. In other words, the Pelena bridge only carried coal for 11, or at most, 20 years and then stood abandoned for about 125 years. No wonder it was showing signs of decay by 1979.

P.R.R.

A Story Told in Maps

By S. R. Hughes

Introduction to the Landore chronological maps

The following maps and commentary are from the forthcoming Royal Commission on Ancient and Historic Monuments in Wales inventory of the Swansea Canal and its associated tramroads. The evolving industrial landscape at Landore was a concentrated microcosm of the development of transport and water-usage in the south Wales industrial area generally. The canals of the Landore area, firstly Morris's and then the Trewyddfa and Swansea Canals, made a major impact on this complex landscape pattern and deeply influenced the transport network and water economy of this closely inter-dependent economic area at Landore. Water for transport and power (used both directly to drive water wheels and indirectly as condensing water for steam-engines) was the predominant catalyst to industrial development in the area from the early 18th century well into the railway age of the late 19th century.

Notes

1. The map captions. The transport, water-supply and industrial installations noted on the following maps may be assumed to have continued in use throughout the period covered by the industrial map unless stated otherwise in the accompanying caption. Changes occurring to installations between the periods covered by individual maps are noted in the captions if the dates of such changes are known. The installations are listed as closely as possible in chronological order for each date range under three headings. Transport features are grouped firstly under railed-ways and then as water transport features in chronological sequence.
2. Map sources. All sources are listed in chronological order at the end of the maps. The few secondary sources are not placed by date of publication, but are placed within this chronological sequence as near as possible to the period at which they bear the greatest relevance to their use in the compilation of the accompanying maps. The sources are numbered in chronological sequence and the reference numbers in the text of the map captions each refer to this list and indicate that a particular point of topographical interest was inferred from the source referred to.
3. Installation titles. All the titles used to describe water, transport or industrial installations are taken from contemporary usage whenever possible. When it is not possible to use a completely contemporary usage any intrusive elements will be enclosed in inverted commas.
"Tramroad" was a term first used in south Wales after 1798 and "waggonway" was commonly used to describe a railed-way in this area before this date. In the titles of this article all pre-Swansea Canal railed-ways (i.e. those in use before 1796 when the arterial canal at Landore was opened) are called waggonways and all later lines to the advent of the locomotive-operated trunk railway in 1850-52 (the South Wales Railway) are called tramroads. Railed-ways originating after this date are called tramways and are likely to have been laid with light conventional edge-rails.
4. General. All installations known to be out of use but still standing are not shown on the maps except for installations on map I which would otherwise take no apparent part in the evolution of this industrial landscape. There are one or two other exceptions which are commented on in the text.

Points of interest noted from the Landore chronological maps

One surprising point of interest is the scale of work undertaken to provide the later 18th century steam-engines with water. The second engine at Plas-y-Marl had a very elaborate contour leat (described as a contour leat to differentiate it from the simpler linear leats which merely followed a single stream or river valley and did not cross minor waterfalls or intercept secondary sources of supply by weired intersections made on the level). Calland's Pit had a second, smaller water-feed of this type, as did Cwm Pit when it utilised the truncated plas-y-Marl feed in the early 19th century. Other, even more sophisticated arrangements of this kind existed elsewhere in the Swansea Valley and will be noted in the forthcoming inventories on the Swansea and West Glamorgan canals.

The main formative influence on the development of local transport in Landore was the succession of arterial transport connections, firstly the navigable river, then the trunk canal from 1796, and finally the trunk railway opened in 1850-52.

Industrial archaeological remains surviving at Landore

1. Morris Castle. Ruins of the multi-storey workers' flats for forty families built in castellated style, 1768-1775. (40) /and 1826 (28)
2. Pont-y-Shoot. Built as part of the Nant Cwm-gelli Level Tramroad between 1806 (21)
3. Calland's Pit. Lower part of engine-house of 1851.
4. Parts of Landore Forge/Millbrook Ironworks remain in the modern Millbrook Steelworks (1822 onwards (27)).
5. Landore Viaduct. West abutment and four piers of Brunel's viaduct remain supporting a tertiary deck (1850).
6. Siemens' laboratory, probably of 1869.(40)
7. Landore Tinplate Works. The original buildings remain of this first steam-powered works in the valley. They are incorporated into the modern works on the site. (39)
8. Traces of the leat from the Nant Cwm-gelli to the Cwm Pit remain, c. 1793. (11)
9. The alignments of parts of many of the tramroads survive as footpaths, tracks or roads as outlined in the inventory text (c.1790 onwards).
10. The capped shaft-head of Tir Glandwr coal pit remains (pre-1826 (28)).
11. Disused quarries on Cnap Llwyd (pre-1826 onwards (28)).

Captions to Map I, c. 1770

Water economy

1. Landore corn mill / Melin fach / The Little Mill (2). A successor to the medieval Trewyddfa manorial mill.
2. "Penyfilia corn mill", called "old mill" in 1761 and probably made inoperative by the construction of the Llangyfelach Copper Works in 1717. (6, 15)
3. Llangyfelach Copper, Lead & Silver Works, 1717-1748 (1). A stone-arched aqueduct shown on a contemporary print (4) drove furnace bellows (3) (probably in the "great work house" at 3,i (5,6)) with its elevated tailrace feeding a copper rodmill (probably at 3,ii (5)) before returning all of its water to the Duke of Beaufort's Landore corn mill as it was compelled to do by litigation settled in 1832 (2). Works disused at the time of the map, but still standing (7).
4. Calland's Coal Pit Engine. By 1770 this probably had a small pond for condensing water supplied via a contour leat from two feeder streams of the Nant Rhyd-y-filais, one probably being tapped by a weired crossing on the level
5. Plas-y-Marl Coal Pits / Graig Coal Pit Engine (6). The condensing water for the pre-1761 engine was probably obtained from the adjoining stream.

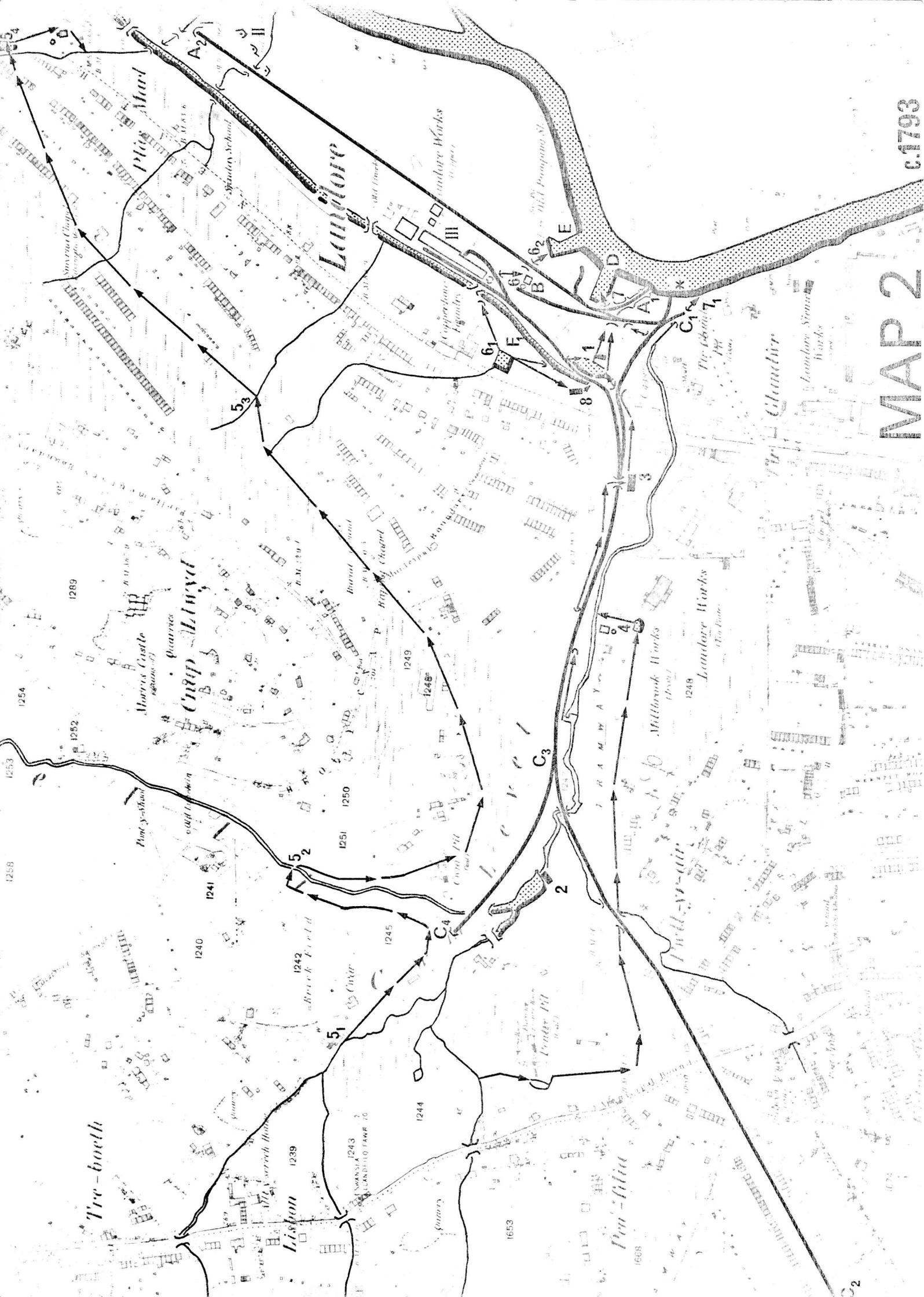
Transport development

The main transport artery before 1796 was of course the navigable River Tawe and further transport developments until the coming of the canals centred on this.

- A. Pwll-yr-Aur (Golden Pit) Waggonway. Operative by c.1770 (9) from a coal pit at A2 (28) to a river wharf on the Tawe at A1 (7,9).
- B. "Plas-y-Marl Level Waggonway". Probably operative by 1771 from a coal level (B2) to what was likely to have been a timber-framed rubble-stone wharf at Landore (B1) (8). This area was known as Copper-House Wharf and the wharf itself may have been built to serve the Llangyfelach Copperworks of 1717.
- C. River Dock on the Tawe at Landore. Operative by 1770 (7) and probably capable of accommodating the 200-ton sailing ships that could reach the Landore Coal and Copper-ore wharfs.
- D. A second river dock on the Tawe at Landore, also operative by 1770 (7).

Other industrial installations (probably not using water)

- I. Pwll-yr-Aur (Golden Pit).
- II. Llangyfelach Copperworks Round House (3) or Red House. Disused at this date, but still standing.
- III. Plas-y-Marl Level. Operative before 1761 (6) with coal originally being shipped from an adjoining wharf.
- IV. "Plas-y-Marl Lime-Kilns", at least two of which were in operation prior to 1761 (6).



c.1793

MAP 2

Captions to Map 2, c. 1793

Water economy

1. Landore corn mill / Melin fach / The Little Mill.
2. Penyffylia "Chaff Mill" built some time between 1748 (3) and 1802 (19) to utilise the redundant mill-pond of Llangyfelach Copperworks.
3. Landore Copper Works Stamping Rolling Mill, c. 1790 (3,11). The Penyffylia Chaff Mill was already utilising part of the Llangyfelach Copperworks water system so that the Landore Copperworks proprietors had to construct a new weir and leat below the Penyffylia mill to obtain sufficient head of water to drive their Stamping and Rolling Mill and then to return the water to the headrace of the ancient Trewyddfa manorial mill.
4. Calland's Coal Pit Engine condensing-water leat.
5. Plas-y-Marl Coal Pits engine pond "feeder". A contour-leat tapping the water of three streams (at 5,i, 5,ii and 5,iii) and feeding Plas-y-Marl New Engine pond (north of 5,iv). One of two such leats existing in 1793 (11) which between them tapped all the streams on Craig Trewyddfa (the hillside between Landore and Morryston).
6. Landore Colliery Engine. Built before 1776 (10) and probably obtaining its water from a leat off a small stream (6j) which also scoured river dock E (6,ii)
7. The main flow of the Nant Rhyd-y-Filias had been culverted southwards at its outlet (7,i) to avoid the expanded Landore quays and a secondary course built northwards (7,ii) to scour out the river dock D (19).
8. Landore Forge. A probable precursor of the later forge on site 3. Buildings are shown on this site in 1793 (11) and in 1844 (35) the one remaining structure is labelled "Old Forge" with a square pond situated to its north.

Transport development

- A. Plas-y-Marl Level "Waggonway". Probably operative from 1771 (8) and by 1793 (11,12, 17) terminating on an elevated timber trestle at Landore Quay (A,i) of a type known elsewhere (e.g. Swansea Canal Upper River Wharves and Morwellham Quay, Devon).
- B. Landore Coal-pit "Waggonway". A short line probably built down to Landwr Quay by c.1793 and connecting with the Pentre-geghyn coal pits and Plas-y-Marl Level waggonways (12).
- C. "Pentre-geghyn Coal Pits (Landore) Waggonway". Probably constructed c.1790 (22). This line from the Pentre-geghyn pits (south west of C,ii) was probably built primarily to supply coal to Landore Copperworks but had a spur down onto Landore Quay (C,i). Likely to have been used to take surplus coal from Cwm-Gelli levels (C,iv) down to the river for transshipment. The line at C4 may have entered a "Penyffylia" level or carried on north along the later line of Cwm Pit Road to levels in upper Cwm-gelli.
- D. River dock built prior to 1770.
- E. A second river dock built prior to 1770.
- F. Morris's Canal. Built from Clyndu Navigation Level (north of F2) at Morryston to Landor (F1) between 1787 and 1791 (10b).

Other industrial installations (probably not using water)

- I. Plas-y-Marl Level. Operative before 1761 with coal originally being shipped from an adjoining wharf.
- II. "Plas-y-Marl Lime-Kilns"
- III. Landore Copperworks. Morris, Lockwood & Co's operations probably moved back to here from Fforest Copperworks, Morryston in 1790 (1) to take advantage of new coal supplies (22) made available by the Pentre-geghyn Coal Pits (Landore) Waggonway. Morryston coal was also made available via the Morris's Canal and could be brought direct by water from the Clyndu coal-face. (11)

Captions to Map 3, c.1796-1806

Water economy

1. Landore corn mill / Melin fach. A successor to the medieval Trewyddfa manorial mill. It may have had a secondary feed (20) made from the Trewyddfa Canal of which the mill owner, the Duke of Beaufort, was first co-owner and then full owner.
2. Penyfilia "Chaff Mill". Built some time between 1748 and 1802 to utilise the redundant mill-pond of Llangyfelach Copperworks.
3. Landore Copper Works Stamping and Rolling Mill of c. 1790 (1,11).
4. Calland's Coal Pit Engine condensing-water leat.
5. Plas-y-Marl Coal Pits Engine. During the early 19th century the elaborate contour leat over Craig Trewyddfa to the Plas-y-Marl engine-pond was abandoned (31) and the earlier feed from the adjacent stream was probably re-instated.
6. Landore Colliery Engine. Built before 1776 and probably obtaining its water from a leat off a small stream (6,i) which also scoured river dock E (6,ii).
7. 7,ii dock F scouring leat. 7,i diverted outlet of the Nant Rhyd-y-Filias.
8. Landore Forge. Probably pre-1793.
9. Cwm Pit Engine. Probably built about 1794 and making use of part of the water-channel and weirs of the Plas-y-Marl Coal Pits contour leat. (31)

Transport development

- A. "Pentre-gethyn Coal Pits (Landore) Waggonway". By 1802 (19) this line was no longer serving Landore Copperworks but only using Landore as a shipping outlet (A1). The Trewyddfa Canal crossed the waggonway incline down to the wharves on an aqueduct (A2) (16). The incline had three lines of rail (30) and therefore must have had a passing loop half way (A3). It would have been self-acting. Pentre-gethyn Coal Pits already had a second outlet down Cwm Burlais to the shipping wharves at Swansea and therefore did not require a connection to the Swansea Canal.
- B. Cwm Pit Railway. A tramroad probably built in c.1794 (14) down from Cwm Pit (B1) to Landore wharf (B2) alongside river-dock B. The inclined bridge over the canal (15) would have been built by the Trewyddfa Canal as stipulated in the Swansea Canal Act. The narrowness of the formation of the unsurfaced road built on the line of the tramroad when disused (42) probably indicated that this was also a three-line incline with a passing loop.
- C. Trewyddfa Canal Inclined Plane. This cost around £50 to build (15), the cost of a contemporary canal bridge on the Trewyddfa Canal and so the incline was probably a conventional tramroad line and not a more elaborate tub boat-carrying installation. This was a double-tracked self-acting inclined plane, the third down to the main wharfage at Landore at this date. It would have enabled all collieries situated on the Trewyddfa Canal to have avoided the Swansea Canal tolls by shipping their coal at Landore directly into two-hundred ton sailing ships and smaller river barges that could transfer their cargoes onto larger sailing vessels (up to 600 tons) downstream.
- D. Landore Copperworks Inclined Plane. A fourth inclined tramroad at Landore that fed refined copper directly onto ships and boats berthed in river dock E. It was constructed in the early 19th century (33) possibly after the period covered in this map. In form it was a double-tracked plane (42), possibly powered as a considerable amount of copper ore came up the river to the works.
- E. River dock built prior to 1770.
- F. A second river dock built prior to 1770 and filled in some time after 1803.
- G. Trewyddfa Canal, consisting of reconstructed Morris's Canal doubled in width on its uphill side to form part of the Swansea Canal main line. Built 1794-96.
- H. Swansea Canal southern section led down to the river wharves at Swansea which were accessible to 600-ton sailing vessels. A double mitred gate at the junction (31) of this part of the Swansea Canal and the Trewyddfa Canal was presumably to guard each canal against bursts on the other's section and to allow draining of each to be carried out independently. The gates did not function as a stop lock: the Swansea Canal's southern section had no independent supply of water, a factor which led to much concern over the Trewyddfa Canal's sale of water to industrial concerns for water power and steam condensing purposes (25).

Other industrial installations (probably not using water)

- I. "Plas-y-Marl Lime Kilns", at least two of which were in operation before 1761.
- II. Landore Copperworks, c.1790
- III. "Landore Lime-Kiln", in operation by 1802.



MAP 3

1796-1806

Sources

1. 1717 R.O.Roberts, 'A chronology of the copper, silver and lead smelting works in the Lower Swansea Valley', in K.J. Hilton, The Lower Swansea Valley Project (London, 1967), 21-22.
2. 1732 N.L.W. Badminton Collection, group II, 1496. 99-year lease and agreement on a bridge, forge and little mill by Beaufort and Thomas Popkins of Fforest. Part of the dispute between the two parties concerned the "diverting (of) the water belonging to an antient mill of the said Duke's called the little mill which the said Thomas Popkins holds by lease from the said Duke for the use and service of a copper work lately erected upon the estate or lands of the said Thomas Popkins." Popkins was given permission to "turn the water belonging to the said mill called the little mill for the use of the said works provided the same be permitted to come from the said copperworks to the said Mill and not be diverted for any other use or purpose."
3. 1723 D.E. Cribbs and R.O.Roberts, 'The copper industry of Neath and Swansea' in the Publications of the South Wales and Monmouth Record Society, 4, 1957, 123-164.
4. 1745 G.Grant Francis, The smelting of copper in the Swansea district (London and Manchester, 1881), p. 106, plate VI (The Llangyvelach Copper Works).
5. 1761. R.I.S.W. 'Part of Trewyddfa Fee, shewing the site of the Old Copper Works, at Landore, in the parish of Llangefelach, from a Plan, dated 1761. Copied for me from a Plan in the Duke of Beaufort's possession, March 1862' (G.Grant Francis).
6. 1761 J.M.Davies, 'The growth of settlement in the Swansea Valley' (unpublished M.A. dissertation, University College of Wales, 1942), map 12,ii: "A map of the Fee of Trewyddfa in the Parish of Clace within the Parish of Llangefelach in the County of Glamorgan Belonging to His Grace the Duke of Beaufort by Lewis Thomas. Copied by William Davies, 1857. This map was drawn by Lewis Thomas in 1761 from a survey made by Whitterley some years before, with some additions thereto made by Lewis Thomas in 1761."
7. 1770 N.L.W. Badminton Collection, group II, 1290. Untitled plan of Landore in 1770 by John Williams with additions in red by Edward Thomas, 1842.
8. 1771 R.I.S.W. Small maps and prints, 463A, 'A plan of River Swansea in Glamorganshire. Taken in 1771 by B. Jones.'
9. c. 1770-1780 R.I.S.W. Small maps and prints, 356. A turnpike road map of the Neath/Swansea/Pontardawe area.
10. 1776 F.G. Cowley, 'Coal mining fatalities in the eighteenth century: the Courts of Great Sessions and industrial archaeology', SWWIAS Newsletter, 12, 1976, 5. Mention of the new Fire Engine Pit of Lockwood & Co. situated at Landore.
- 10b. 1787-1791. N.L.W. Badminton Collection, group II, 2134.
11. c. 1793 Swansea Reference Library. Plan of the upper line of the canal through the Landore/Morryston area in the broadsheet entitled 'Case of the Duke of Beaufort and the other noblemen and gentlemen on the proposed Swansea Canal'.
12. c. 1793 N.L.W. Badminton Collection, group II, 1295
13. 1793 G.R.O. Q/DP 4. 'Plan of an intended Navigable Canal from Swansea to Hen-noyadd; in the Counties of Glamorgan and Brecon, by T.Sheasby Engineer.'
14. 1794 House of Lords Record Office, 'An Act for Making and Maintaining a Navigable Canal from the Town of Swansea, in the County of Glamorgan; into the parish of Ystradgunlais in the County of Brecon' (23 May 1794). Para.V, p. 2056 reads "Provided also, and be it further enacted, That nothing herein contained shall extend, or be construed, deemed, or taken to extend, to authorize or empower the said Company of Proprietors to destroy, hinder or interrupt, a certain Railed Way intended to be made by John Smith and John Oliver Willimas Esquires, for the Carriage of Coals from certain Coal Pits in Lands at or near Landoor aforesaid, on the Western Side of the said intended Canal, down to the River Tawy, but the said Canal shall be cut and made with a bridge over the same in such Manner as that the said Railed Way may run without Interruption in a regular Descent over the said intended Canal."
15. 1795 N.L.W. Badminton Collection, group II, 1685. 'Expences laid out on the Trewyddfa Canal, to the 31st December 1795, extracted by Wm. Bevan' Includes "Part of the Canal unfinished ... Inclined Plane at Landore about ... £50".

(MAPS 4,5 and 6 and SOURCE NOTES 16-45 will appear in the next issue of this Newsletter)

FIELD VISITS, 1979

During the summer of 1979 members of the Society and their guests have enjoyed four excursions, two by 'bus and two on foot and by car. We seem at last to have learnt the knack of choosing our dates properly, for on three of these days the weather was ideal, and on the fourth it was at least dry, if a little cloudy.

The first outing of the season was on 19 May when a disappointingly small party led by Dr Graham Humphrys set off to visit Maesteg. Any who may have doubted the capacity of Maesteg to keep us interested for a whole day were soon proved wrong. Dr Humphrys showed us a great many interesting sites associated with the iron and coal industries and their associated transport infrastructure. He also explained the physical setting of the town, why it was built just where it was, and described its growth. There are three main phases in its history - the period of iron smelting, 1828-1900, the period of dependence on coal mining, 1860-1945, and the years since the war when a variety of manufacturing industries have been introduced. One of the finest industrial monuments in the town, and a rare survivor from the first period, is the so-called Corn Stores, originally the engine house of the Llynfi Ironworks, which is unfortunately under threat of demolition. It is a large and imposing building of Pennant sandstone which probably belongs to the 1840s.

On 2 June Dr Fred Cowley and Mr Paul Reynolds showed members some of the sites associated with the coal mining industry in the Landore and Llangyfelach districts of Swansea. Among these were the Mynydd Newydd Colliery railway incline (c.1843), still surviving in part as a public footpath; the site of the Pentre Colliery of 1807 which is in the process of being landscaped; and the engine house of Calland's Pit, the top of which is just visible on Landore playing fields. The party also walked along part of the Tirdonkin Colliery mineral railway and inspected the site of Cefngyfelach colliery. The afternoon concluded with a visit to Scott's Pit to look at the progress of the restoration scheme.

The idea of a summer evening walk proved popular and there was a good attendance on 12 July when Mr David Morgan led a walk round some of the former coal mines in the Dunvant area. Partly because of the size of the party, and partly because we did not feel inclined to hurry on a warm evening it proved possible only to complete half of the proposed walk, so the group re-assembled a week later to complete the tour. Although the district is now reverting to nature, a discerning eye can soon pick out the signs of past industrial activity. It is hard to imagine now that this residential and agricultural suburb of Swansea was once the scene of so much industry.

The final excursion of the season was to a few sites in the Forest of Dean on 22 September. Our guide on this occasion was Mr Gordon Rattenbury. There cannot be many visitors to Tintern who resolutely turn away from the abbey in favour of some other attraction, but that is what we did. The valley of the Anghidy, which falls into the Wye at Tintern, was once the scene of considerable industrial activity. The main manufacture was of iron wire which took place from the 16th century to the end of the 19th century. To serve this, transport facilities by river and rail were provided and the water of the Anghidy was harnessed as a source of power. Also at Tintern a visit was paid to the attractively restored station with its collection of railwayana. In the afternoon the party continued to Redbrook with its copperworks and tramroad incline. The final call was at Monmouth to see the terminus of the Monmouth Railway of 1810.

P.R.R.

M.V. SYMONS. Coal mining in the Llanelli area. Vol. 1: 16th century to 1829.

The publication of Dr Symons' history of coal mining in Llanelli is an event which has been looked forward to eagerly by anyone with an interest in the history of our region. Now it has appeared it has proved to be every bit as good as was expected. Indeed, it must be one of the finest books of local history to have been published in south Wales for many years. The amount of research that has gone into this work is formidable: for instance, there are 384 footnotes citing sources for chapter 3 alone, and 434 for chapter 4. Altogether 231 distinct sites of mining activity have been identified in the district covered. It is this solid foundation of thorough research and meticulous attention to providing authority for all his statements that make Dr Symons' book such an impressive achievement. Yet for all its learning the book remains readable. The story starts in the 16th century with the first recorded mining in the area in Leland's Itinerary. Evidence for this early period is scanty, but with the 18th century it becomes greater. In 70 pages the land-owning families of the 18th century and the individuals who were concerned with coal-mining are discussed, and then a further 70 pages deal with the period 1800-1829. There then follow two chapters which look at the canals, tramways and shipping places. As well as being a work of historical research, this book is also likely to become valued as a guide, something which should add to its appeal to the industrial archaeologist. Dr Symons has obviously engaged in extensive fieldwork and knows the area about which he writes. One of its strong features are the illustrations, both contemporary and photographs showing the present-day appearance of some of the sites described. There are many clear and detailed maps which will make it easy for anyone interested to identify the sites of the coal mines or to follow the canals and tramways.

As well as offering our warmest congratulations to Dr Symons we should also express our appreciation of the public spirited attitude of Llanelli Borough Council in undertaking the publication of this book, especially since it has been priced at what can be no more than cost. For a well-produced volume of 370 pages with profuse illustrations, £3-25 is ludicrously cheap.

(Published by Llanelli Borough Council, Public Library, Llanelli. £3-25 + 95p postage.)

INDUSTRIAL ARCHAEOLOGY MAGAZINE, no. 1

Existing journals devoted to the subject of industrial archaeology fall roughly into two categories. On the one hand there are Industrial Archaeology Review, with a distinctly academic approach, and the slightly less academic, but longer established Industrial Archaeology. The other type of journal is the more specialised one, often produced by a society or special interest group. Some of these are produced to a high standard, but they tend to have restricted circulations because of the limited readership to which they appeal. So far there has been no journal covering a variety of topics in a fairly popular style. The publishers of this new magazine have spotted this gap in the existing range of publications, and this is their attempt to fill it. In the introduction to the first issue, IAM is described as "a new magazine for those who, while perhaps having a special interest in one branch of industrial archaeology, want to keep in touch with other areas of the subject". But one cannot help wondering whether enough readers of this description exist to sustain the sort of publication that IAM aims to be. Probably a lot of those "having a special interest in one branch of industrial archaeology" are quite happy to concentrate on that one interest without much regard for the wider scene. IA has probably not reached that stage of popularity where it can claim a large number of supporters interested in a general sort of way, which is necessary for the success of a magazine such as this.

Certainly IAM deserves to succeed. The first issue has been produced to a high standard with many illustrations, some of them well reproduced in colour. It includes articles on the S.S. Great Britain, the Festiniog Railway, steam ploughing and a variety of smaller topics. It is perhaps a little annoying to see misprints of the kind that ought not to appear in an IA journal, such as "Tan-y-Bwlck" for Tan-y-Bwlch (twice), or that old chestnut, "guage" for gauge. The contents appear to lean rather heavily towards transport, judging by this issue and the material promised for the next, which might put off some potential readers. The magazine is to appear quarterly and costs 65p per issue from Armour Publications, Tilehurst, Reading. Copies are also available from the editor of this newsletter.

Published for the South West Wales Industrial Archaeology Society by P.R.Reynolds, 12 Beaconsfield Way, Sketty, Swansea SA2 9JR.