

Ystalyfera

Ystalyfera was one of the new communities or settlements that came into being after the completion of the Swansea Canal in 1798. When the canal was under construction in 1794/96 along the upper Swansea Valley, it passed alongside the two small farms of Stalyfera Uchaf and Stalyfera Isaf, a name that later became associated with the new town of Ystalyfera.

In 1794 a coal level was being driven into the hillside alongside the route of the new canal, which by 1805 had become known as Lefel Harper, after the person of that name who opened the coalmine. The mine was only about 150 yards south of the Twrch Aqueduct and alongside the western side of the canal to facilitate easy loading of coal into the barges. That mine entrance survived as a masonry-lined tunnel extending into the hillside alongside the later Ystalyfera by-pass road constructed on the route of the former Swansea Vale railway, until about 1990 when I photographed the entrance. Earth and other debris were bulldozed into the mine entrance to seal it in the late 1990's and now there is no trace of Ystalyfera's first coalmine. Also, in 1805 a branch canal was excavated off the main line of the canal near lock number 17 and running alongside and below the canal as far as lock 22, possibly to by-pass the flight of Pantyffynnon locks, a busy bottleneck for canal barges. From the head of the branch canal a tramroad ran to a coalmine, a deep pit sunk alongside the bottom of what is currently Clee's Lane, Ystalyfera. That is shown on the Llangiwig Tithe Map of 1838. By 1877 the O/S Map only records an air shaft at that location. That branch canal is at present the main feeder channel for the Swansea Canal and located at the rear of Hodgsons Road, Godre'r Graig. Those early coalmines were to be followed by Pwllbach Colliery in 1812.

The Llanguicke (Llangiwig) Parish Tithe Plan of 1838 shows that there was no settlement of any kind at what is currently Ystalyfera, just a coal yard alongside the canal with a tramroad from the Twrch Valley to the canal.

In 1830 a Deed was granted to Ely, Mercer and Treacher to work the Cyfing Colliery. The Swansea Canal Toll Books (PRO Rail 876/11) show them paying tolls of £299-11-5 in June 1831, £382-18-2 in July, £412-1-5 in August, and in September £131-19-6. Tolls were paid at one penny per ton of cargo carried for each mile of canal travelled, with the average tonnage carried in the barges being twenty to twenty-two tons each. The colliery went bankrupt soon afterwards, and in 1832 the lease was purchased by Evan James.

Treacher and James reputedly sank the first pit at what became Ystalyfera in 1839 and also erected a blast furnace. The Swansea Canal Toll Books for 1839 show them both as paying tolls under their own names. In August that year £147-19-4 was paid, In September a reduced £90-12-9 was paid. October records £87-6-6 in tolls, November £92-11-8 was paid, and December £83-8-4 was paid. Tolls continued to be paid by Treacher and James until February 1840. They only paid wharf rents until December 1843, presumably for their coal interests.

Soon afterwards Brancker and Hegan with Edward Budd of Swansea took over the coal mine and blast furnace. Edward's son James Palmer managed the coal mines and furnace before becoming the Managing Director. Budd worked iron ore at Ystradgynlais, Cwmllynfell, Cwmtwrch and the Patches, the name given to the land around the Twrch River that was open casted for the ores. (Ein Cyngor1962/63, magazine of Pontardawe Urban District Council).

Swansea Canal Toll Books record The Ystalyfera Iron Company paying tolls from June 1838 and continuing to do so until June 1863:

1838 - £140-0-2	1839 - £189-7-9	1840 - £2046-11-11
1841 - £1215-16-9	1842 - £819-12-3	1843 - £891-9-4
1844 - £879-11-3	1845 - £1625-17-3	1846 - £1564-2-0
1847 - £1053-16-4	1848 - £847-9-1	1849 - £870-10-9
1850 - £785-7-1	1851 - £820-14-10	1852 - £1165-15-1
1853 - £2796-1-3	1854 - £4418-11-7	1855 - £3767-9-2
1856 - £5493-18-4	1857 - 35181-2-3	1858 - 34262-19-1
1859 - 35246-0-4	1860 - £4775-5-7	1861 - £2956-8-10
1862 - £1970-18-2	1863 - Jan to June £1148-7-4	

A total of £147,162-13-1d. That was a substantial sum of money for those times.

Ystalyfera Important Dates.

- 1794 – Lefel Harper opened.
- 1795 – Swansea Canal completed to Ystalyfera.
- 1812 – Pwllbach Colliery opened.
- 1838 – Ystalyfera Ironworks commenced.
- 1849 – Ynisgeinon Colliery opened.
- 1854 – Crimea Colliery opened.
- 1860 – Gilwern Drift Mine opened.
- 1865 – Swansea Vale Railway reached Ystalyfera.
- 1866 – Cholera Epidemic in Ystalyfera and district.
- 1870 – Ystalyfera flour mill working.
- 1880 – Gurnos Tinplate Works opened.
- 1886 – Ystalyfera ironworks closes.
- 1906 – Next Week Colliery opened.
- 1920 – Varteg Colliery (the Boot) opened.
- 1927 – Pentwyn Colliery opened.

The National Census of 1861 for Llangiwg Parish that included Godre'r Graig, Cilmaengwyn and the north of Ynysmeudwy, up to the Twrch River and Tawe catchment area listed the following; **Ironworkers and Tinplate Workers – 432. Coal miners – 71, making a total of 503 industrial workers. The Swansea Canal employed 7, railways -7, farms – 26, traders, publicans, clock makers, metal workers – 40, and one harpist.**

Ystalyfera Ironworks and Ystalyfera town – Unearthing the past

This may appear to be an unusual title for an historical article, but this project grew from nothing in 1982 into 131 individual documents by 2010 comprising original 19th century letters, photographs and photograph albums, old postcards, newspaper cuttings, maps, excerpts from published articles, Swansea Canal Company Toll Books, Gilbertson Ironworks archives WGAS, census returns, parish registers, physical artefacts and an archaeological excavation in 2011 that led to the unearthing of the ironworks blast furnace remains, the revolutionary (in iron making) hot air flues and ancillary buildings.

My interest in Ystalyfera Ironworks commenced in 1983 whilst I was involved in a Swansea Canal project to dredge the one and a half section of canal between Ynysmeudwy and Pontardawe. Thousands of tons of silt was removed from the canal in a two-month project and deposited on adjacent farmlands.

Amongst all the silt was the usual canal detritus of scrap metal, oil drums, tree roots and branches,

car tyres, timber, corrugated sheets, glass and pottery, lots of old glass bottles, and much more. I was on site most days to keep a watching brief on the dredging and silt disposal. One day a piece of metal about one yard in length fell out of the dredgers grab. I salvaged it and cleaned it of all the mud. Initials were cast onto the upper face of the iron. They were in capital letters and read as follows "FERA ANTH I", with the last letter on its side. I had gained some local information about Ystalyfera from old postcards that had the address abbreviated. Ystalyfera was shortened to FERA. So the letters cast onto the iron were to be read as Ystalyfera Anthracite Iron, indicating that the iron was manufactured at Ystalyfera Ironworks using anthracite coal in the process. The final letter "I" indicating that the item was iron. Over the following months I salvaged about eight or nine more of the iron pigs, for that is what they were, pig iron. Two were donated to the Ystalyfera Historical Society and the remainder to the National Museum of Wales.

An interesting photograph appeared in the publication "*Mines, Mills and Furnaces*" by the National Museum of Wales that depicted a man standing on a stairway inside a large house. The balustrade of the stairway had iron scroll balusters on either side of the stairs and during my wanderings around Ystalyfera I had seen similar iron scrolls used as chapel railings at Pant-teg Chapel and at Bryn Seion Chapel. They were obviously manufactured at the Ystalyfera Ironworks and could be dated to c1870. The railings at Pant-teg Chapel had been removed and broken many years ago but a painting by T. Chaplin of Pant-teg Chapel with intact railings still hung in the chapel vestry in the early 1980's when I photographed it. A housing developer unfortunately deliberately destroyed the Bryn Seion Chapel railings in the 1990's.

Other uses for Ystalyfera iron were uncovered at the WGAS at Swansea in the Gilbertson Stock ledger D/DX 125-82 1865-74. They recorded that Gilbertson was purchasing pig iron for use in his works at Pontardawe and also old cinders that had been used in the iron making blast furnaces. They were rich in iron and Gilbertson was refining them to abstract the iron for his own works processes. In 1861 he purchased 2107 tons of cinders, in 1865, 162 tons of cinders, 1866, 1962 tons, 1868, 2387 tons, and in 1869 2172 tons. The purchases continue up to the year 1873.

The heavy industries in the mid and upper Swansea Valley were reliant on one and other for the provision of metals and materials. It is only recently that my research into the Gilbertson Archives at WGAS has showed how closely this was.

Gilbertson also purchased box nails from the Ystalyfera Tinplate Works for the Pontardawe Tinplate Works in 1866. The name BOX NAILS does not suggest an interesting item, but they are for those with an interest in the tinplate and iron industries. The Gilbertson Stock Ledgers D/DX are very informative into the purchases of all items required in the manufacture of tinplates, iron from Ystalyfera and Ynyscedwyn Ironworks, tin from Cornwall, coal from Swansea Valley mines, acid from Pontardawe, oil from importers, machinery, and box nails.

Tinplates were sold by and in boxes, and tinplate works output was measured in boxes weekly or annually. The "*Chronology of the Tinplate Works of Great Britain*" by E. H. Brooke published in 1944, but updated on the 1932 publication by his father Charles Berjeu Brooke lists every tinplate works in the UK from the 18th century up to 1944 with details of ownership, foundation, location, number of tinplate mills, blackplate mills, output in boxes, brand names for different types of coatings and thicknesses of sheet metal of output.

Gilbertson's works at Pontardawe, originally established in 1835 by William Parsons, operated nine mills in 1861 that increased to sixteen mills later with an output of 16, 000 boxes of tinplate weekly. The records at the WGAS show that Gilbertson purchased one and half tons of **box nails** in 1865 and one ton in 1867 from the Ystalyfera Iron Works. A wooden box to hold tinplates is approximately 22 inches by 16 inches and made up of four frame timbers with four boards on the top and four the bottom that requires 30 nails to nail the box together. The above purchase is the equivalent to about 50,000 nails.

James Palmer Budd was not just the proprietor of the Ystalyfera Iron Works but also of two works in the Midlands. The Brockmoor Tinsplate Works at Brierley Hill, Staffs, commenced by James Palmer Budd in 1844, four mills working, and the Tivedale Tinsplate Works at Tipton, Staffs, and commenced 1831 but restarted by James Palmer Budd in 1844. Manufacturers of nails and tinned plates, four mills in work. (*Chronology of the Tinsplate Works of GB, Brooke 1944*).

The House of Commons Select Committee on Private Bills, Minutes of Evidence by J. P. Budd into the Newport, Abergavenny and Hereford Railway Extension to Swansea Bill 27 May 1853 gives further clues to Budd's trading. Page 17 of the Minutes state "I send it down to Swansea by the Swansea Canal and land it on our wharf there. I then find a vessel to go to Gloucester and at Gloucester it is put into River boats and taken up somewhere near Worcester then it is transferred again to some canal and reaches the works some time in a fortnight". Budd obviously was a supporter of the faster mode of transport that the railways could offer, and very understandable when one considers the time it took to transport goods from Swansea to the Midlands.

This brings me to the saga of the Buckingham Palace gates. In the early 1980's I was made aware of the local knowledge that those gates were manufactured in the Swansea Valley at Ynyscedwyn Ironworks. No evidence survives for this, but Budd's evidence of transporting iron to the Midlands for use in his works there might add a grain of truth to those stories. I wrote to the Buckingham Palace Archivist in 1996 and received a reply stating that the gates and railings had been replaced over the longevity of the ironwork, and that no evidence exists for the local knowledge that they were manufactured in the Swansea Valley, but Budd's evidence of his Midlands connections to Ystalyfera might have a grain of truth somewhere in this saga.

In 1848, the Ystalyfera Ironworks applied the waste heat from the blast furnace into brick-lined iron Stoves alongside, and that in turn heated the air blast that was blown back into the furnace to smelt the minerals. (*The Chemistry as Applied to Arts and Manufacturing, Muspratt 1850*).

In 1848, Mr Palmer Budd adopted a more successful mode of applying the waste heat of the blast furnace; part of his success lay in not making his apparatus a portion of the furnace, nor burning the gasses; hence the operations did not interfere with any way with those of the blast furnaces. Three or four horizontal flues, of about twelve inches diameter, are constructed about three feet below the top of the furnace, and lead into an adjoining chamber or stove provided with a stalk, which creates the draught. Into this stove, he draws as much of the gaseous escape as he requires, the supply being regulated by means of a damper. The quantity required to heat the blast for a furnace; he considers to be only about one-sixth of that which passes off from the trunnel head. He does not burn the gasses, but allows them to pass hot through the stove or furnace for heating the blast; they enter at a temperature of about 1800 degrees Fahrenheit, and leave it at a temperature of about 600 degrees; and thus the mere passage of these heated gasses through the stoves serves his purpose. Mr Budd says that his plan has several great advantages: it requires no coal or labour, the blast is better and more regularly heated, and the apparatus more durable.

Besides the heating of the blast, the same ingenious manufacturer applied these heated gases to his steam-boilers, and states that the saving effected by the application to one boiler was equal to three hundred and fifty pounds sterling per year. The total saving in his works by doing away with the use of coal in all the boilers, fire-bars, et cetera, would at full worth exceed two thousand pounds sterling per annum.

At the Ebbw Vale, Abersychan, Sirhowy, Aberdare, Ystalyfera, and other establishments using the gas, the number of boilers now in use is nearly twice as many as formerly sufficed with coal fires only.

1848 is of course the year that the British Association for the Advancement of Science met at Swansea, and no doubt, James Palmer Budd was invited to speak to that illustrious gathering.

If the Ystalyfera ironworks did utilise waste furnace gas to heat its boilers, **it must be amongst the first, if not the very first to use this process**, then the excavated remains of the boiler house make it an important

industrial archaeology monument worthy of the highest protection.

Postscript.

During the “excavations” of the Ystalyfera Ironworks site one Sunday I witnessed one of the contractors or excavators carrying out excavation works along the northern side of the site. The man was driving a bulldozer across the site and reducing the overburden of coal waste and rubble and earth. He was working on his own with no other assistant or banksman to advise him on what he might be uncovering etc. As I watched, a man appeared and began shouting at the driver to stop because he was damaging brick tunnels that he had exposed. They turned out to be the important “flues” that James Palmer Budd had constructed for his waste gas heating system in 1848.

Clive Reed Ystalyfera Ironworks Archive

1. Important dates in Ystalyfera history
2. Mineral resources of the Swansea Valley and Ystalyfera Ironworks, notes by CR
3. Historical Map of Ystalyfera by E. L. Williams Ystalyfera 1963
4. "ERIH – European Route of Industrial Heritage", reference to Ystalyfera Ironworks
5. Copy photograph of James Palmer Budd
6. Postcard of Ynysydarren House, Budd's home
7. "Register of Electors" in the parish of Alltgregg 1846, J. P. Budd, Edward Budd, Branker
8. Photograph of a penknife originally owned by James Palmer Budd
9. Photographs of enamelled bronze memorial plaques to James Palmer Budd recovered from Holy Trinity Church on its demolition.
10. Copy of Ystalyfera Ironworks share certificate dated 1840
11. Historical note on James Palmer Budd, "Swansea Valley History Society" 1980
12. 3 pages of historical notes on Ystalyfera by RCAHMW
13. Photograph of Ystalyfera Tinplate Works c1940
14. 4 pages on iron smelting at Ystalyfera Ironworks – "Chemistry as Applied to Arts and Manufacturing" by Dr S. Muspratt c1850
15. Historical notes on Ystalyfera Ironworks from "British Blast Furnace Statistics by P. Ridden"
16. "Cambrian" newspaper 6 August 1969 –loss of 6 boxes of tinplate from Ystalyfera Ironworks in transit
17. The Ystalyfera Tinplate Co Ltd. – "Chronology of the Tinplate Works of GB 1944"
18. 4 pages "House of Commons Committee, Minutes of Evidence by J. P. Budd 1853", from Michael Hale
19. Letter from Buckingham Palace 1996 to C. Reed regarding the manufacture of palace gates
20. Note by C. Reed on the connection between Ystalyfera and the Midlands of England
21. Information on Ystalyfera iron and coal from the "Cyclopaedia of Useful Arts and Manufacturing" 1853
22. Notes on Ystalyfera Ironworks from the "Economic Development of Swansea and of the Swansea District", D. T. Williams 1940
23. Ystalyfera Ironworks and the use of anthracite coal, "Swansea and its Regions" 1971
24. "Stationary Steam Engines at Swansea c1840", South West Wales Industrial Archaeology Society Bulletin No 34. Treacher and James
25. Ystalyfera notes "Ein Cyngor" 1962
26. "Llangiwig Tithe Map 1838", pre Ystalyfera ironworks and town.
27. Ditto
28. "1877 O/S Map" Ystalyfera, showing the ironworks, Swansea Canal and new town
29. 3 photographs of the Swansea Canal at Ystalyfera by Ian Milne c1970
30. 14 pages of the "Swansea Canal Toll Books 1831-60", the Ystalyfera Ironworks trade
31. 9 A3 pages of "1877 O/S Map" depicting the Swansea Canal route in the upper Swansea Valley and of industries along the canal corridor
32. "1921 O/S Map" of the Godre'r Graig – Ystalyfera area
33. Copy of the "Survey of the Farmlands that became Ystalyfera", by Philip Thomas 1838
34. "1960 O/S Map" of Ystalyfera
35. Notes and photograph of the Ystalyfera Ironworks slag waste tip by Clive Reed
36. Notes from "WGAS Gilbertson Stock Ledger D/DX 259-24 1879-83", Cinders from Ystalyfera Ironworks
37. Ditto
38. 5 pages of notes "WGAS Gilbertson Stock Ledger D/DX 125-82 1865-74", Cinders from Ystalyfera Ironworks
39. Notes "WGAS Ystalyfera Letter Books D/D Z319/17" Ystalyfera Tinplate Works
40. Notes "WGAS D/D Yc Agreements and Assignments", Ynyscedwyn Estate"
41. Photograph by Mike Jones of Holy Trinity Church Ystalyfera
42. Notes "WGAS Gilbertson Stock Ledger D/DX 259-23", pig iron from Ystalyfera and

Ynyscedwyn Ironworks

43. Photograph and the recovery of Ystalyfera Anthracite Iron by Clive Reed 1983
44. Notes "WGAS D/DX 259/12" box nails to Pontardawe Tinplate Works 1866 from Ystalyfera Tinplate Works
45. "Ystalyfera Tin Works" by D. G. Evans 1983
46. Notes "1851 Llanguicke Census", iron tinplate and canal workers
47. Notes "Llangiwg Parish Registers, Marriages 1837-59", iron workers
48. Notes "Ystalyfera Ironworks", C. Reed 1997
49. Notes "Ystalyfera Ironworks", "Social and Economic Survey of Swansea and District 1940"
50. Original letter from Ystalyfera Iron Works dated 1865 with transcript by C. Reed
51. Newsletter "Ystalyfera Tinplate Works" by C. Reed 2011
52. Original document from Abernant No 1 Furnace 1856 showing furnace charge
53. Notes from the Swansea Evening Express 1874"
54. Original letter of the Ystalyfera Iron Works dates 1865 with transcript by C. Reed
55. Letter from Paul Reynolds 2011 with information on waste palm oil
56. "The Register of Persons Entitled To Vote 1840 in the Parishes of ALLTGREGG and the Hamlet of BAGLAN LOWER", Budd, Branker, Treacher, Gilbertson
57. Notes from "Poor Rate Books of Llangiwg 1849 and 1871", iron workers, publicans
58. Notes "1841 Census" Graig Arw and Pontardawe, canal and iron workers
59. Notes "1861 Census", iron workers
60. Notes from "Llangiwg St Peters Parish Register Marriages 1863-80", iron and canal workers
61. Notes from "Clydach St Johns Parish Register Marriages 1847-87", iron and canal workers
62. Photograph of Ystalyfera Ironworks Main Office c1965, exterior view from P. Evans
63. Photograph of Ystalyfera Ironworks Main Office c1965, interior view from P. Evans
64. 2 colour photographs of former Ystalyfera ironworks site 1983 by Clive Reed
65. Photograph c1920 "Bont Harri" "Harry's Bridge", from Michael George, Ystalyfera
66. Photocopy of Cyfing Colliery, Ystalyfera c1920, "Swansea Tide Tables"
67. Four photographs c1946 of the abandoned Ystalyfera Tinplate Works, "Mines, Mills and Furnaces-Industrial Archaeology in Wales"
68. Enlargement of one of above
69. "Cwarr Clee", "Clee's Quarry", Ystalyfera, from Noel Watkins, Ynysmeudwy
70. Piling work at the former Ystalyfera Ironworks site c1946, Gareth George, Ystalyfera
71. Postcard view of Ystalyfera, Varteg area c1930
72. Ystalyfera and the Varteg area c1930, from Mrs Eira Gould, Ystalyfera
73. Piling work at the former Ystalyfera Ironworks site c1946, Gareth George, Ystalyfera
74. Archaeological excavations at Ynyscedwyn Ironworks 2011, Clive reed
75. Swansea Canal Society Newsletter c1985, coal to Ystalyfera, by Noel Watkins, Ynysmeudwy
76. "Cambrian" February 1870, Swansea Vale Railway
77. "Cambrian" 11th January 1850, Ystalyfera Ironworks
78. "Cambrian" 23 December 1871, Ystalyfera Ironworks, stealing iron
79. "Cambrian" 8 February 1850, Ystalyfera Ironworks, a tremendous storm
80. Postcard view Lower Ystalyfera c1920
81. "Cambrian" 15 October 1858, The Public Quay
82. "Cambrian" March 1869, The Boiler Explosion at Ystalyfera
83. "Cambrian" notes 1859, Ystalyfera Eisteddfod
84. Photograph of a blast furnace Blowing Engine as used at Ystalyfera Ironworks
85. "Cambrian" 9 December 1870, Stealing Iron
86. "Cambrian" notes 1862, Fancy Fair at Ynisdarren House, Ystalyfera
87. P. R. O References, Mercer, Ely and Treacher 1831
88. WGAS notes "D/D Yc 1048/1, 1048/3", Ystalyfera notes 1859
89. WGAS notes, "D/D Yc 1048/5, Ystalyfera Assignments 1902
90. WGAS notes, "D/D Yc 977, Ystalyfera Assignments between John Newton and Ystalyfera Iron and Tinplate Company 1904"
91. Photograph of Ystalyfera Ironworks slag bank 5 June 1983 by Clive Reed

92. WGAS notes "D/D Yc 979" Ystalyfera Ironworks, Ystalyfera Colliery
93. Brief history "Nineteenth Settlement, the Ystalyfera and Ystradgynlais Region"
94. "Extract from the Register of Deaths from Cholera at Ystalyfera 1866"
95. Two photographs from postcard c1920, view over Ystalyfera with ironworks in foreground
96. Photocopy image of Ystalyfera iron scroll work, "Mines, Mills and Furnaces", Industrial Archaeology in Wales, NMW
97. Two views of Bryn Seion Chapel Ystalyfera 1988 with Ystalyfera Ironworks cast iron scrolls
98. Enlargement photograph of Ystalyfera Ironworks cast iron scrolls at Bryn Seion Chapel Ystalyfera
99. Sketch details of Bryn Seion Chapel cast iron railings by Clive Reed
100. Two colour photographs of Ystalyfera cast iron scrolls at Bryn Seion Chapel
101. Colour postcard c1920 of Cyfing Road at Pant-teg Chapel
102. Copy postcard Pant-teg Chapel Ystalyfera c1920
103. Colour photograph of Pant-teg Chapel Ystalyfera April 1988 by Clive Reed
104. Copy photograph of Pant-teg Chapel Ystalyfera c1900
105. Photograph of painting of Pant-teg Chapel Ystalyfera c1872 by T. Chaplin
106. 1849 gravestone at Pant-teg Chapel to Ystalyfera ironworker
107. 1849 gravestone at Pant-teg Chapel, Ystalyfera to a Block Layer
108. 1857 gravestone at Pant-teg Chapel to Evan Davies, Ystalyfera Arms
109. 1901 gravestone at Pant-teg Chapel to John Williams, Pattern Maker
110. 1835 gravestone at Pant-teg Chapel to John Lewis, Mason
111. 1876 gravestone to Jane, wife of David Thomas of Ystalyfera
112. Photograph, general view of Ystalyfera c 1930 by Will Hughes, Ystalyfera
113. Three colour copies of Ystalyfera postcards c1950
114. Article on Maesydderwen School, undated
115. WGAS Yniscedwyn Estate D/D Yc, list of Leases
116. Information page on colliery output at Ystalyfera, Ystradgynlais and Pontardawe
117. Page from "Swansea Tide Tables", c1916 Tirbach and Pwllbach Collieries
118. Two photographs of Ystalyfera Colliery 1958
119. Page from "Swansea Tide Tables 1916", Ystalyfera collieries
120. "South Wales Voice 23 April 1923" Tirbach coal sold to Sandringham
121. "Ports of the Bristol Channel 1873", Ystalyfera Tinsplate Works
122. "Kelly's Directory 1875" page on Swansea Valley
123. Information note, Ystalyfera Waggon Repair Works, "Ein Cyngor" 1952
124. Railways in Wales, "A History of Wales 1815-1906" by D. G. Evans 1989
125. Photograph, constructing a timber railway bridge at Ystalyfera c1870
126. Information booklet and photographs on Blaenavon Ironworks
127. Pack of correspondence between Clive Reed and Glamorgan-Gwent Archaeological Trust, Neath Port Talbot CBC, Cadw, RCAHMW, Secretary of State for Wales, Welsh Assembly Government, and Mr Peter Hain MP.
128. Report by Dyfed Archaeological Trust 2010 into the Ystalyfera Ironworks excavations
129. Correspondence from Mr Geoff Bryce, Ystalyfera
130. 8 colour photographs of the excavations at Ystalyfera ironworks 2011 by Clive Reed
131. Five photograph albums (136 photographs) of the 2011 Ystalyfera Ironworks archaeological excavations by Clive Reed

Clive Reed 5 November 2018