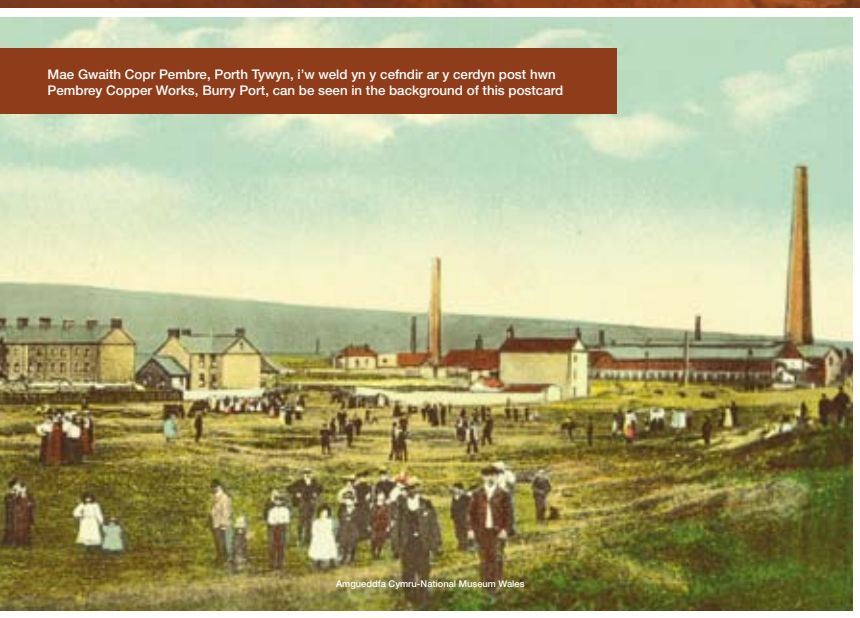
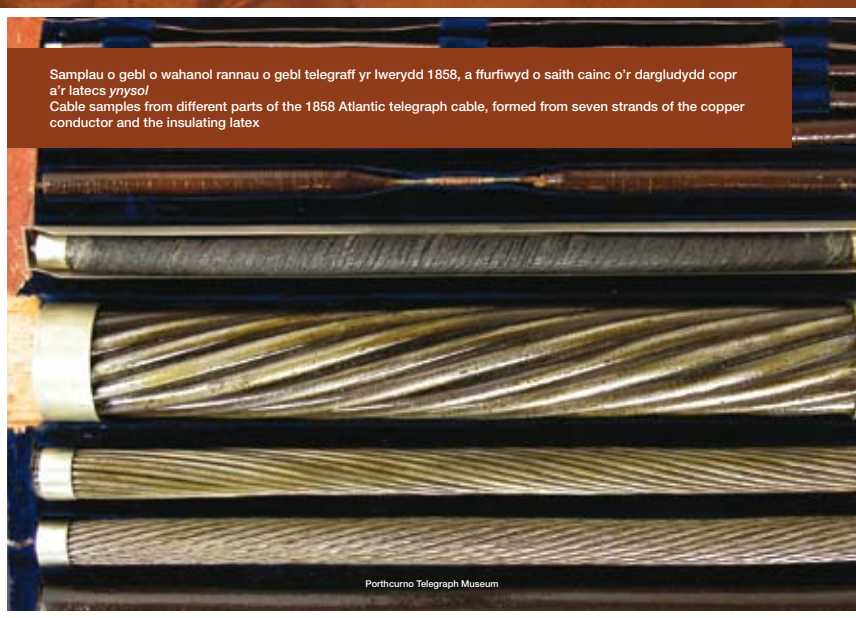
A WORLD OF WELSH COPPER
BYD COPR CYMRU

GWYDDONIAETH COPR
COPPER SCIENCE



Mae Gwaith Copr Pembre, Porth Tywyn, i'w weld yn y cefndir ar y cerdyn post hwn
Pembrey Copper Works, Burry Port, can be seen in the background of this postcard

Amgueddfa Cymru-National Museum Wales



Samplau o gebl o wahanol rannau o gebl telegraff yr Iwerydd 1858, a ffurfiwyd o saith cainc o'r dargludydd copr a'r latecs *ynysol*
Cable samples from different parts of the 1858 Atlantic telegraph cable, formed from seven strands of the copper conductor and the insulating latex

Porthcurno Telegraph Museum

Ym 1865 daeth dull newydd o goethi electrolytig i alluogi cael ffurf lawer mwy pur o gopr. Datblygodd y broses hon o electroplatio cemegol metelau cyffredin ag arian yn y 1840au. Sefydlodd James Elkington o Birmingham waith coethi electrolytig cyntaf y byd yng Ngwaith Copr Pembre, ger Porth Tywyn, Sir Gaerfyrddin ym 1869.

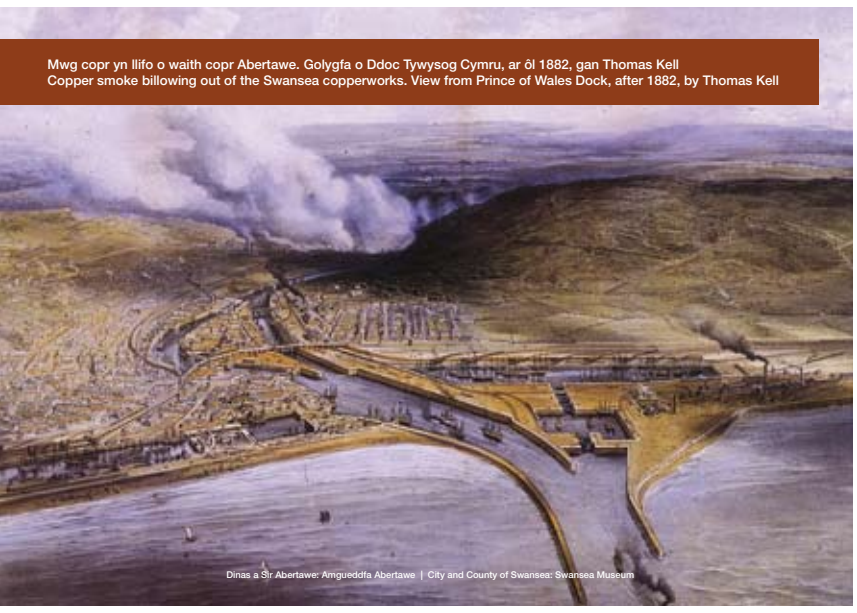
Roedd y galw am gopr pur yn cael ei yrru'n rhannol gan arloesi gwyddonol mewn harneisio trydan a datblygu telegraffiaeth ar gyfer cyfathrebu uniongyrchol dros bellter hir. Ym 1844 cynhaliodd Syr Charles Wheatstone yr arbrawf telegraffiaeth tanddwr cyntaf ym Mae Abertawe. Cafodd copr ar gyfer yr arbrawf cyntaf i osod cebl trawsiwerydd ei gynhyrchu gan waith Williams, Foster a'r Cwmni yn y Morfa ym 1857.

Roedd John Henry Vivian yn feistr copr a gwyddonydd fu'n gweithio gyda phrif wyddonwyr y cyfnod megis Humphrey Davy a Michael Faraday i geisio ganfod dull o leihau'r llygredd gwenwynig oedd yn cael ei achosi gan fwg copr. Cafodd cyfarfod blynyddol Cymdeithas Prydain dros Ddatblygiad Gwyddoniaeth ei gynnal yn Abertawe ym 1848.

In 1865 a new method of electrolytic refining enabled a much purer form of copper to be obtained. This process developed from the chemical electroplating of base metals with silver in the 1840s. James Elkington of Birmingham installed the world's first electrolytic refining plant at Pembrey Copper Works, near Burry Port, Carmarthenshire in 1869.

Demand for very pure copper was partly fuelled by scientific innovations in harnessing electricity and the development of telegraphy for long-distance instant communication. In 1844 Sir Charles Wheatstone conducted the first underwater telegraph experiment in Swansea Bay. Copper for the first experiment of laying transatlantic cable was produced by Williams, Foster and Co.'s Morfa works in 1857.

John Henry Vivian was a copper magnate and scientist who worked with leading scientists of the time such as Humphrey Davy and Michael Faraday to attempt to find a way of reducing the toxic pollution caused by copper smoke. Swansea hosted the British Association for the Advancement of Science's annual meeting in 1848.



Mwg copr yn llifo o waith copr Abertawe. Golygfa o Ddoc Tywysog Cymru, ar ôl 1882, gan Thomas Kell
Copper smoke billowing out of the Swansea copperworks. View from Prince of Wales Dock, after 1882, by Thomas Kell

Dinas a Sir Abertawe: Amgueddfa Abertawe | City and County of Swansea: Swansea Museum

Cerflun pres o John Henry Vivian (1785-1855), gwyddonydd, gwleidydd a meistr copr, Marina Abertawe
Bronze statue of John Henry Vivian (1785-1855), scientist, politician and copper magnate, Swansea Marina

Jory Juglor

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