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Dublin Core

Title

Cable Ties | Ceblau'n Cysylltu

Subject

Telegraph cables

Ceblau telegraff

Communications

Cyfathrebu

Fishguard

Abergwaun

Abermawr

Creator

Natasha de Chroustchhoff

Publisher

Ports, Past and Present Project

Date

2023

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Relation

<https://perma.cc/Q67X-VMPA>

Format

Curatescape story

Language

English

Welsh

Coverage

51.969551903415244, -5.083684509300673

Curatescape Story Item Type Metadata

Lede

How Canada, Ireland and Wales Were Connected Beneath the Sea.

Lede (Welsh)

Stori cysylltu Canada, Iwerddon a Chymru o dan y môr.

Story

In our world of instant communications it's hard to imagine that it once took ten days to send a message from North America to Europe. That was the fastest a ship could go - if the weather was favourable.

All this changed in 1858 when the first transatlantic cable was laid between Valentia Island in southern Ireland and the small settlement of Heart's Content in Newfoundland. It was the brainwave of a wealthy American businessman, Cyrus West Field, to use recently-invented Morse code telegraphy to transmit signals across the Atlantic via a cable laid underwater. The challenge was immense but it was eventually met by two ships paying out coiled cables from each side of the Atlantic and splicing them in the middle. A congratulatory message was sent from Queen Victoria in England to the President of the United States but shortly after the cable broke. Several more attempts were made before a secure connection was achieved in 1866.

The efforts involved in manufacturing, laying and maintaining a viable cable stretching 2000 miles along the sea bed at a depth of up to 2 miles cannot be over-stated. The inner core of the cable consisted of seven strands of copper wire insulated with gutta-percha, tar, pitch, linseed oil, beeswax and more wire. The immensely heavy roll of cable had to be paid out gradually and continuously from on board a ship that was itself subject to the winds and waves of the North Atlantic. The first ships used still relied on sails as well as coal-fired steam engines, and the weight of the cable was an added risk in rough seas. Lives were lost.

The success of the 1866 cable was owed to the iron steam ship *Great Eastern*, designed by Isambard Kingdom Brunel, the engineering genius responsible for Britain's first railway network. After her years as the biggest passenger liner plying between Britain and North America, the *Great Eastern* became a cable-laying ship, her power and stability surpassing the earlier vessels used. She was the only vessel capable of carrying the cable in its entirety and she laid it on the sea bed in just 14 days.

Once a secure telegraphic link had been established across the Atlantic to Ireland, landlines took it north from Cork to Waterford and Wexford. From there an existing cable conveyed it under the Irish Sea to Pembrokeshire – Wales and North America were connected! Onward relay to London followed.

This cable made landfall at Abermawr, a remote bay a few miles west of Fishguard. But it could have been a very different place if Isambard Kingdom Brunel (the very same!) had had his way. Years earlier in 1847, when planning the Great Western Railway route, he lit upon Abermawr as the ideal spot for the rail terminus and port he envisaged. Exploratory earth workings can still be seen behind the bay if you know where to look. As luck would have it, Brunel's plan was stymied by the local geology; the village of Neyland further south was selected to become a transport hub instead. Abermawr, with its long shingle bank and wide wooded valley, remained the peaceful place it is today: a Site of Special Scientific Interest with prehistoric 'drowned forest' visible at the lowest tides.

A single reminder of the transatlantic cable connection can be seen today: above the bay the hut that served as a relay station still stands. It's been a holiday cottage for many years but in 2016, the 150th anniversary of the laying of the telegraphic cable, a commemoration plaque was placed on the wall. It shows the *Great Eastern* connecting those three landfall points across a map: Fortune's Bay, Valentia Island and Abermawr, united beneath the waves.

Story (Welsh)

Yn ein byd ni o gyfathrebu yn y fan a'r lle, mae'n anodd dychmygu ei bod yn arfer cymryd deng niwrnod i anfon neges o Ogledd America i Ewrop. Dyna'r cyflymaf y gallai llong fynd – os byddai'r tywydd yn ffafriol.

Newidiodd hyn i gyd ym 1858 pan gafodd y cebl trawsatlantig cyntaf ei osod rhwng Ynys Valentia yn ne Iwerddon ac anheddiad bach Heart's Content yn Newfoundland. Syniad dyn busnes cyfoethog o America, Cyrus West Field, oedd defnyddio telegraffiaeth cod Morse, a oedd newydd gael ei dyfeisio, i drosglwyddo signalau ar draws Môr Iwerydd ar hyd cebl o dan y dŵr. Roedd yr her yn aruthrol ond fe'i cyflawnwyd yn y pen draw gan ddwy long a fu'n dirwyn ceblau o bob ochr i Fôr Iwerydd a'u huno yn y canol. Anfonwyd neges o longyfarchiadau gan y Frenhines Victoria yn Lloegr at Arlywydd yr Unol Daleithiau ond yn fuan wedyn cafodd y cebl ei dorri. Cafwyd sawl ymgais arall cyn i gysylltiad cadarn gael ei greu ym 1866.

Does dim modd gor-ddweud yr ymdrechion a fu'n gysylltiedig â gweithgynhyrchu, gosod a chynnal cebl hyfyw yn ymestyn 2000 o filltiroedd ar hyd gwely'r môr ar ddyfnder o hyd at 2 filltir. Roedd craidd mewnlol y cebl yn cynnwys saith llinyn o wifrau copr wedi'u hinswleiddio â gutta-percha, pyg, olew had llin, cwrw gwenyn a rhagor o wifren. Bu'n rhaid i'r rholyn eithriadol drwm o gebl gael ei ddirwyn yn raddol ac yn barhaus oddi ar long a oedd ei hun yn agored i wyntoedd a thonnau Gogledd Iwerydd. Roedd y llongau cyntaf a ddefnyddiwyd yn dal i ddefnyddio hwyliâu yn ogystal â pheiriannau stêm yn llosgi glo, ac roedd pwysau'r cebl yn risg ychwanegol mewn moroedd garw. Cafodd bywydau eu colli.

Roedd llwyddiant cebl 1866 yn deillio o ddefnyddio'r llong stêm haearn y *Great Eastern*, a gynlluniwyd gan Isambard Kingdom Brunel, yr athrylith beirianneg a fu'n gyfrifol am rwydwaith rheilffyrdd cyntaf Prydain. Ar ôl ei blynnyddoedd fel y llong fwyaf i deithwyr rhwng Prydain a Gogledd America, daeth y *Great Eastern* yn llong gosod cebl, ac roedd ei phŵer a'i sefydlogrwydd yn well nag unrhyw longau cynharach a ddefnyddiwyd. Hi oedd yr unig long a allai gario'r cebl yn ei gyfanrwydd a llwyddodd i'w ddodi ar wely'r môr mewn 14 diwrnod yn unig.

Ar ôl i'r cysylltiad telegraffig cadarn gael ei sefydlu ar draws Môr Iwerydd i Iwerddon, aeth llinellau tir ymlaen tu'r gogledd o Gorc i Waterford a Wexford. Oddi yno roedd cebl presennol yn cario'r cysylltiad o dan Fôr Iwerddon i Sir Benfro – a dyna Gymru a Gogledd America wedi'u cysylltu! Roedd yna gysylltiad ymlaen i Lundain wedyn.

Daeth y cebl i'r lan yn Aber-mawr, bae anghysbell ychydig filltiroedd i'r gorllewin o Abergwaun. Ond fe allai fod wedi bod yn lle gwahanol iawn pe bai Isambard Kingdom Brunel (yr un un!) wedi cael ei ffordd. Flynyddoedd yn gynharach ym 1847, wrth gynllunio llwybr Rheilffordd y Great Western, penderfynodd Brunel mai Aber-mawr fyddai'r man delfrydol ar gyfer y derfynfa reilffordd a'r porthladd a ragwelai. Gallwch weld y gwaith cloddio arbrolfol y tu ôl i'r bae o hyd os ydych chi'n gwybod ble i chwilio. Wrth lwc, cafodd cynllun Brunel ei atal gan y ddaearreg leol; dewiswyd pentref Neyland ymhellach i'r de i fod yn ganolfan drafnidiaeth yn lle Aber-mawr. Cafodd Aber-mawr, a'i fanc graean hir a'i ddyffryn coediog llydan, aros yn lle heddychlon hyd heddiw: Safle o Ddiddordeb Gwyddonol Arbennig gyda 'choedwig wedi'i boddi' gynhanesyddol i'w gweld ar y llanw isaf.

Mae un peth i'n hatgoffa am y cysylltiad cebl trawsatlantig i'w weld hyd heddiw: uwchben y bae mae'r cwt a fu'n orsaf gyfnewid yn dal i sefyll. Mae wedi bod yn fwthyn gwyliau ers blynyddoedd lawer ond yn 2016, 150 mlynedd ers gosod y cebl telegraffig, cafodd plac coffa ei godi ar y wal. Mae'n dangos y *Great Eastern* yn cysylltu'r tri phwynt ar y glannau ar draws map: Fortune's Bay, Ynys Valentia ac Aber-mawr, wedi'i huno o dan y tonnau.

Factoid

Related Resources

'Abermawr Cable Station', *History of the Atlantic Cable and Undersea Communications*, archived at <https://perma.cc/Y55M-VLA9>

'Transatlantic Cable, Abermawr', *Engineering Timelines*, archived at <https://perma.cc/72G3-EQDS>

'The Story', *Brunel's SS Great Britain*, archived at <https://perma.cc/TF4B-CSZQ>

Becky Hotchin, 'Abermawr's key role in Isambard Kingdom Brunel's Atlantic telegraph cable celebrated by Institution of Civil Engineers Wales Cymr', *Western Telegraph*, 1 August 2016, archived at <https://perma.cc/7B6D-ELKV>

'Magical woods and beach of Abermawr walk', *National Trust*, archived at <https://perma.cc/JD6Y-AHW4>

Official Website