

## Cogan, Penarth Marina and Cardiff Barrage

### Marconi radio transmitter sculpture, Penarth

Located in the middle of the roundabout is [the actual apparatus Macaroni used to transmit his radio signal](#) at the junction of Terra Nova Way and Marconi Avenue. The Oystercatcher is on the left, Tesco on the right.

Guglielmo Marconi aka [Gigalo Macaroni](#), was son of Giuseppe Marconi (an Italian aristocratic landowner from Porretta Terme) and his Irish wife Annie Jameson (daughter of Andrew Jameson of Daphne Castle in County Wexford, Ireland, and granddaughter of John Jameson, the Scottish founder of whiskey distillers Jameson & Sons). Having an Irish mother helped explain Marconi's many activities in Great Britain and Ireland.

He invented wireless in Italy but thought it would be better to patent and develop in UK so come over here. On 13 May 1897, Marconi sent the first ever wireless communication over the open sea – a message was transmitted over the Bristol Channel from Flat Holm Island to Lavernock Point near Cardiff, a distance of 6 kilometres (3.7 mi). The message read "Are you ready". The recording slip for the first message is now kept at the National Museum of Wales.

The morse slip, that read "Are you ready?", was sent on 13 May 1897, and signed by Marconi and his assistant, George Kemp. The next few days were eventful ones in the history of Mr Marconi. On the 11th and 12th his experiments were unsatisfactory - worse still, they were failures - and the fate of his new system trembled in the balance.

An inspiration saved it. On the 13th May the apparatus was carried down to the beach at the foot of the cliff, and connected by another 20 yards (18 m) of wire to the pole above, thus making an aerial height of 50 yards (46 m) in all. Result, The instruments which for two days failed to record anything intelligible, now rang out the signals clear and unmistakable, and all by the addition of a few yards of wire!"

In 1930, Italian dictator Benito Mussolini appointed him President of the Royal Academy of Italy, which made Marconi a member of the Fascist Grand Council.

The steel sculpture is the work of [artist Ray Smith](#) (b.1949 Harrow, London, d.2018), was commissioned by Tesco Stores with Cardiff Bay Arts Trust and unveiled in 1996. It is a representation of the transmitter Marconi used for his first radio transmission from nearby Lavernock Point to Flat Holm island in 1897. The design of the sculpture is based on original drawings of the circuit diagram of the equipment.

Smith's Red Army (1990), a painted steel sculpture of 1,000 pieces was commissioned by, and featured at, the 1990 [Gateshead National Garden Festival](#); it has since been relocated to [Frank Lloyd Wright's Kentuck Knob](#) home in Pennsylvania in the United States. Plus he did album cover design, especially for Heaven 17 (4 albums).

## Slate Sails

Two sail shapes, placed parallel and close but heading in opposite directions, set on a brick base. Date: 2001. Chandlers Way, Cardiff (Caerdydd), CF64 1SL. The sculptor was Howard Bowcott (b.1956).

He also did the Tonypandy Column which we walked past in Tonypandy after lunch on the way back to the station and the Community Seating Area in Chepstow that we saw in Beaufort Square, Chepstow, Monmouthshire.

Untruth: the sculptor Howard Bowcott was known to his friends as Howard Notick as he was always wiping the slates clean.

## "Solar Pavilion," A Belvedere for Penarth Haven Park. South Wales, U.K. 1999.

Belvedere structure which sits on top of Teletubby Hill in Penarth Marina's, Plymouth Park.

Mac Adams is originally from Brynmawr and studied at Cardiff School of Art and Design. He moved to America in the late '60s. His best known public artworks are the [Korean War Memorial](#) in New York and a piece called Meditation which is in Strasbourg. In 1999 he was commissioned to produce some public art for Penarth. He came up with the idea of a Solar Pavilion entitled The Belvedere. The pavilion is designed so that the sun projects an inscription in Welsh, Y Tiroedd Oll Yw Fy Nghorff, on to a large footprint on the floor. It means: All Lands Are My Body. Check it out next time you are in the area.

A belvedere is an architectural structure sited to take advantage of a fine or scenic view. The term has been used both for rooms in the upper part of a building or structures on the roof, or a separate pavilion in a garden or park. The actual structure can be of any form or style, including a turret, a cupola or an open gallery. The term may be also used for a paved terrace or just a place with a good viewpoint, but no actual building

['The Belvedere' by Mac Adams](#) <https://welshicons.org/cymrupedia/artists/mac-adams/>



Mac Adams (b. 1943 Brynmawr, South Wales) is an Internationally renowned sculptor. He studied at Cardiff College of Art before going on to Rutgers University. He is now a Professor at the State University of New York at Old Westbury, New York. He became a US citizen in 1990 but still keeps in touch with his Welsh roots.

Mac Adams' international reputation has grown over the last 30 years. His innovative use of light and shade in his sculptures play elaborate games with shadows and natural light. Recent public projects have even relied on the Sun's position to make fleeting figurative shadow images only visible at certain times of the day. His work is collected by dozens of large institutions, from the Chase Manhattan Bank and Microsoft to London's Victoria and Albert Museum, and the Museum of Modern Art New York.

<https://babylonwales.blogspot.com/2012/03/mac-adams.html>

Untruth: MacAdams wasn't paid for this sculpture for four months as during that time the sun never came out so nobody could tell if it worked as he claimed or not. In the end that paid him and said thanks or rather Ta i.e. Ta Mac Adams

## **Mermaid**

[Sebastien Boyesen \(b.1960\)](#)

Paget Road, Cardiff (Caerdydd)

Facing the sea, a stylised combination of a mermaid and a dolphin, supported on a tailed ring. Created approx 2000

He also did the bull in Newport and the miner with the serrated head which we saw on our visit to Newport.

## **3 Ellipses for 3 Locks**

Felice Varini (born in Locarno in 1952) is a Paris-based, Swiss artist who was nominated for the 2000/2001 Marcel Duchamp Prize. Mostly known for his geometric perspective-localized paintings in rooms and other spaces, using projector-stencil techniques, according to mathematics professor and art critic Joël Koskas, "A work of Varini is an anti-Mona Lisa."

The first work by Varini in the UK, this sculpture was a year in planning and cost £25,000. Commissioned on behalf of the Harbour Authority by CBAT the Arts & Regeneration Agency.

## **Flat Holm Radio Sculpture**

The commission will be made from recycled Jarrah or Hornbeam ironwood railway sleepers. The hardy material was originally imported from Malesia or Southeast Asia during the Victorian era. The sculpture titled 'Radio Flarholm' re-uses the heritage materials, configuring them through the modern CAD/CAM technique of 3D carving into a way mark sculpture for the Cardiff Barrage cycle path, where we hope it will become a lasting commemorative symbol and a great photo opportunity for visitors. The sculpture is to be carved at Boyesen Studios in Llangranog.

The new sculpture which symbolises Flat Holm and aims to link people on the mainland with the island as part of an arts project, has been installed on Cardiff Bay Barrage, just south of the Scott Memorial.

The four-metre-tall hardwood sculpture of a radio is a significant milestone in the National Lottery Heritage Fund Project, "Flat Holm – A Walk Through Time," and is part of a collection of new art content conceived and designed by artist Glenn Davidson. The artwork celebrates the first wireless radio transmission over open water from Lavernock Point to the island in 1897 and not only commemorates a technological achievement but also serves as a landmark that signifies one of the many links between the mainland and the island.

The sculpture is located halfway along the Barrage and its scenic location offers a point of interest for visitors strolling past, where they can see Flat Holm in the distance. Other art associated with this project includes poems, monologues, soundscapes from the island, short films and podcasts, which the public can experience on a website.

"Flat Holm – A Walk Through Time" is transforming the island thanks to a £1.8m award from the National Lottery Heritage Fund, which makes part of a £2.8 million investment to rejuvenate the island. Additional funding includes capital investment from Cardiff Council and contributions including staff resources from partner organisations such as RSPB Cymru and the Flat Holm Society. This investment supports the repair and renovation of historic buildings, habitat improvements for wildlife, and various community and visitor engagement activities, including the new sculpture. Visitors can explore the island's self-guided tour, which highlights its significant past, including the former cholera hospital and thriving wildlife.

Ref:

[https://www.cardiffnewsroom.co.uk/releases/c25/33907.html?utm\\_source=Facebook&utm\\_medium=social&utm\\_campaign=Orlo](https://www.cardiffnewsroom.co.uk/releases/c25/33907.html?utm_source=Facebook&utm_medium=social&utm_campaign=Orlo)

### **Cardiff Barrage:**

For more information on Cardiff Barrage visit: <https://www.cardiffharbour.com/barrage-story/>

Or on Wikipedia at:

[https://en.wikipedia.org/wiki/Cardiff\\_Bay\\_Barrage](https://en.wikipedia.org/wiki/Cardiff_Bay_Barrage)





# Doc PENARTH Dock

ice  
Institution of Civil Engineers

Penarth Dock finally closed as a working dock in 1963. It opened in 1865 despite legal action by the Bute Trustees over the associated lease to the Taff Vale Railway. Isambard Kingdom Brunel with the TVR's agreement to use Bute West Dock in 1846. However growing frustration by the coal the Penarth Harbour, Dock & Railway Company in 1857. Sir John Hawkshaw, the engineer of the earlier Ely Tidal Harbour & Railway, was joint engineer of the new dock with Samuel Dobson. Harrison Hayter was Hawkshaw's chief assistant and both would serve as presidents of the Institution of Civil Engineers. The dock was extended in 1881, again under Hawkshaw, but now working with George Fisher of the TVR. The vast tonnage of shipping coaled here included Brunel's 'Great Britain' which left from number 9 tip in 1886. In 1936 the dock was closed due to the decline in coal demand, it re-opened during the Second World War but was restricted afterwards to the laying up of ships and those undergoing repairs.

## Penarth Dock

Joint Engineers: Sir John Hawkshaw (1811-1891) & Samuel Dobson (1826-1870)  
Assistant Resident Engineer: Henry Marc Brunel (1842-1903) Brunel's second son.  
Contractor: Messrs Smith & Knight  
Opened 10 June 1865, officially by Baroness Windsor, but being delayed en route James Poole (1797-1872), the TVR chairman, stepped in with the remarks  
...time and tide wait for no man...

Dock extension formally opened 9 April 1884 by Lord Windsor  
Resident Engineer: Henry Oakden Fisher (1845-1915)  
Contractor: Thomas Andrew Walker

With the closure of the working dock in 1963 the outer basin was used by leisure craft while the inner basin was in-filled with household refuse. A yacht lock entrance was installed in 1966 and the new marina, consisting of the outer basin and part of the inner basin, opened in 1987. Surrounded by new housing and other developments, the in-filled part of the inner basin became Plymouth Park.

Presented by ICE Wales Cymru in 2013  
on the 50th anniversary of the closure  
of Penarth Dock



Caeodd Doc Penarth yn derfynol fel doc gweithio yn 1963. O'r cynigion cyntaf yn y 1830au, agorodd yn 1865, gan heio Ymddiriedolaeth Bute oherwydd ei les ar gyfer Rheilffordd Cwm Taff (TVR). Cynlluniodd Isambard Kingdom Brunel, peiriannydd TVR, ddod yma ond rhoddwyd y gorau i'r cynlluniau hynny yn dilyn cytundeb i ddefnyddio Doc Gorllewin Bute yn 1846. Oherwydd rhwystrddigaeth gynyddol cludwyr glo gyda Dociau Bute yng Nghaerdydd, sefydlodd John Batchelor a nifer o gyfarnddalliaid TVR Gwmi Harlow. Doc a Rheilffordd Llanw Ely blaenorol, oedd cyd-beiriannydd y doc newydd gyda Samuel Dobson. Harrison Hayter oedd prif gymorthwydd Hawkshaw a byddai'r ddau yn gwasanaethu fel llywyddion y Sellyddiad Peiriannwy Sifil. Cafodd y doc ei ymestyn yn 1881, eto dan Hawkshaw, ond yn awr yn gweithio gyda George Fisher o'r TVR. Ymhlith y nifer enfawr o longau a gludodd lo oddi yma roedd 'Great Britain' Brunel a adawodd o domen rhif 9 yn 1886. Cafodd y doc ei gau yn 1936 oherwydd y gostyngiad yn y galw am lo. Fe'i hail-agorwyd yn ystod yr Ail Ryfel Byd ond ar ôl hynny cafodd ei gyfyngu i ddocio ac atgywio longau.

## Doc Penarth

Cyd Beiriannwyd: Syr John Hawkshaw (1811-1891) a Samuel Dobson (1826-1870)  
Cyd Beiriannydd Preswyl: Henry Marc Brunel (1842-1903), ail fab Brunel.  
Contractwr: Mri. Smith a Knight  
Agorwyd yn swyddogol ar 10 Mehefin 1865 gan y Ffawres Windsor ond oedd yn hwy'r yn cyrraedd felly camodd James Poole (1797-1872), cadeirydd TVR i adeu a dweud  
... time and tide wait for no man ...

Agorwyd estyniad y doc yn ffurfiol ar 9 Ebrill 1884 gan yr Arglwydd Windsor  
Peiriannydd Preswyl: Henry Oakden Fisher (1845-1915)  
Contractwr: Thomas Andrew Walker

Gyda chau'r doc gwaith yn 1963 defnyddiwyd y basin allanol gan gychod hamdden a llenwyd y basin mewnol gyda sbwriel o gartref. Gosodwyd mynedfa loc i longau hysilio yn 1966 ac agorwyd y marina newydd, yn cynnwys y basin allanol a rhan o'r basin mewnol, yn 1987. Wedi'i amgylchynu gan dai newydd datblygiadau eraill, daeth y rhan a lenwyd yn ybasin mewnol yn Bwrdd Plymouth.

Cyflwynwyd gan ICE Wales Cymru yn 2013  
ar 50fed mlyneddiant cau terfynol Doc  
Penarth.

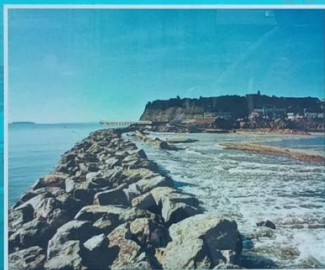
## HANES Y MORGLAWDD THE STORY OF THE BARRAGE

### O'r llanw i'r llyn...

Creodd y Morglawdd, prosiect peiranneg sifil penigamp, y Bae dŵr croyw a welwn heddiw. O ganlyniad i adeiladu'r Morglawdd ac ailddatblygu ardal y dociau, daeth ystod eang o weithgareddau dŵr, digwyddiadau ar y tir, busnesau ac atyniadau i ymwelwyr i Fae Caerdydd.

Mae tirwedd y Bae wedi newid yn ddramatig ers adeiladu'r Morglawdd. Yn wreiddiol, daeth y llanw i mewn ac allan ac roedd yr ardal yn aber. Pan oedd y llanw'n uchel, byddai cychod mawr yn hwylio'r holl ffordd i le mae Ceir Fôr-Fonwyn nawr. Yn ystod llanw isel, fflatiau laid oedd yr ardal gyfan.

Adeiladwyd y Morglawdd rhwng 1994 a 1999 gan gostio £220 miliwn. Ar ôl cwblhau'r Morglawdd, rhoddwyd argae ar afonydd Taff ac Ely, a datblygodd llyn dŵr croyw - genedigaelh Bae Caerdydd.



### Deunyddiau a ddefnyddiwyd wrth adeiladu

Concrt: 135,000m³  
Amddiffyniad creigiau: 250,000m³  
Silt a gorthwyd: 2,000,000m³  
Tywod: 1,700,000m³

### Mewn ffigurau

Cyfanswm hyd: 1,100m  
Hyd yr arglawdd: 800m  
Arwynebedd y llyn  
wed'i gronni: 200 hectar

### From tide to lake...

An award-winning civil engineering project, the Barrage created the freshwater Bay that we can see today. As a result of the construction of the Barrage and the redevelopment of the docks area, a wide range of water activities, land-based events, businesses and visitor attractions located to Cardiff Bay.

The landscape of the Bay has changed dramatically since the construction of the Barrage. Originally, the tide came in and out and the area was estuarine. At high tide, large boats would sail right up to where Mermaid Quay is now. During low tide, the whole area was mud flats.

Barrage construction took place between 1994 and 1999 at a cost of £220 million. Following the completion of the Barrage, the rivers Taff and Ely were dammed, and a freshwater lake developed - the birth of Cardiff Bay.



### Materials used in construction

Concrete: 135,000m³  
Rock armour: 250,000m³  
Silt dredged: 2,000,000m³  
Sand: 1,700,000m³

### In figures

Overall length: 1,100m  
Embankment length: 800m  
Impounded lake area: 200 hectares



# CARTHU YM MAE CAERDYDD DREDGING IN CARDIFF BAY

## Beth yw carthu?

Gwaredu deunyddiau gwaddodol (siltio), a adawyd gan weithredoedd naturiol y môr neu afon o gorff o ddŵr, e.e. porthladd.

## Pam mae'n ofynnol?

Mae Harbwr Allanol Morglawdd Bae Caerdydd wedi'i gynllunio i ganiatáu cychod i mewn ac allan yn ystod pob cam o'r llanw, a darparu hafan ddiogel i longau sy'n mynd i mewn i'r Bae Mewnol. Mae siltio'r harbwr yn dasg cynnal a chadw barhaus a rogiwehwyd pan adeiladwyd y Morglawdd.

Mae gan Awdurdod Harbwr Caerdydd ddyletswydd o dan Ddeddf Morglawdd Bae Caerdydd i gynnal a chadw'r Harbwr Allanol o'r Sianel Ddysu fel llwybr mardwyo i'r Bae Mewnol, a rhaid iddo hefyd gydymffurfio â gofynion y drwydded garthu a gyhoeddwyd gan Gyfoeth Naturiol Cymru.

## Sut mae'n cael ei wneud?

Tim project Boskalis Westminster sy'n gwneud y gwaith gan ddefnyddio Saispan Dau, carchlong ôl-gerbyd sugno, a Tioga B, cych aredig ac arolygu. Yn 72.80m o hyd a chydha throwst 14.30m, Saispan Dau yw'r llong fwyaf posibl a all fynd i mewn a throi yn ddiogel yn yr Harbwr Allanol.

## Pryd mae'n cael ei gynnal?

Mae angen carthu ddwywaith y flwyddyn, yn ystod mis Chwefror i fis Mawrth a mis Awst i fis Medi, fel y cytunwyd gyda Chyfoeth Naturiol Cymru.



Mae pob ymgyrch garthu yn carthu tua 70,000 metr ciwbig, sydd oddeutu 100,000 o dunelli.

Each dredging campaign dredges around 70,000 cubic metres, which is approximately 100,000 tonnes.



## What is dredging?

The removal of sedimented materials (siltation), deposited by the natural actions of the sea or a river from a body of water, e.g. port.

## Why is it required?

The Cardiff Bay Barrage Outer Harbour has been designed to allow boats in and out at all states of tide, and provide a safe haven for vessels entering the Inland Bay. Siltation of the harbour is an ongoing maintenance task that was anticipated when the Barrage was constructed.

Cardiff Harbour Authority has a duty under the Cardiff Bay Barrage Act to maintain the Outer Harbour and Approach Channel as a navigational route to the Inland Bay, and must also comply with the requirements of the dredging licence issued by Natural Resources Wales.

## How is it carried out?

Boskalis Westminster's project team conduct the work using the Saispan Dau, a trailer suction hopper dredger, and Tioga B, a plough and survey vessel. At 72.80m long and with a 14.30m beam, the Saispan Dau is the largest possible vessel which can safely enter and turn within the Outer Harbour.

## When does it take place?

Dredging is needed twice yearly, during February to March and August to September, as agreed with Natural Resources Wales.

# Y LLWYBR PYSGOD THE FISH PASS

## Beth yw e?

Mae'r Morglawdd yn ymgorffori llwybr pysgod wedi'i gynllunio'n benodol i alluogi eogiaid, brithyllod y môr, llyswennod, lampreiod, draenogod y môr a hyrddiaid i ddychwelyd i afonydd Taf ac Ely.

## Sut mae'n gweithio?

Mae dŵr croyw yn llifo drwy'r llwybr pysgod o'r Bae ac i lawr system o byllau a choredi sy'n caniatáu i'r pysgod nofio, waeth beth fo uchder y llanw yn Aber Afon Hafren. I fyny ac i mewn i'r Bae, Mae'r pysgod yn adnabod y dŵr croyw ac yn mynd drwy'r llwybr pysgod; mae'n nhw hyd yn oed yn sylwi'r gwahaniaeth rhwng afonydd Taf a Threlai ac yn dychwelyd i le dechreuon nhw eu bywyd gynt.

Yn ystod llanw'r gwanwyn (uchel), defnyddir ail llwybr sy'n atal dŵr hallt rhag mynd i mewn i'r Bae - mae'r llwybr yma ar lefel uwch. Er mwyn ei ddefnyddio, mae tri phwmp mawr yn pwmpio dŵr drwy'r llwybr ac i'r aber.

## A yw'r pysgod yn cael eu tracio?

Ydyn, mae system fonitro yn cyfrifi pob pysgodyn ac yn cofnodi ei broffil wrth iddo symud trwy'r llwybr. Mae'r wybodaeth hon yn cael ei chofnodi, gan ei gwneud yn bosibl adnabod rhywogaethau.



## Oeddech chi'n gwybod?

Mae rhai eogiaid o afon Taf yn teithio i Gefnfor Gogledd yr Iwerydd, lle mae'n nhw'n treulio'r rhan fwyaf o'u bywydau'n bwydo. Mae gan eogiaid o'r Iwerydd synnwyr aroglïr anhygoel, o'r gred yw bod eu synnwyr aroglïr 1,000 yn gryfach na chwn!

## Did you know?

Some salmon from the river Taff travel to the 'North Atlantic Ocean' where they spend most of their lives feeding.

Atlantic salmon have an extraordinary sense of smell, believed to be 1,000 times greater than that of dogs!

## What is it?

The Barrage incorporates a specially designed fish pass to allow migratory fish, such as salmon, sea trout, eel, lamprey, bass and mullet, to return to the rivers Taff and Ely.

## How does it work?

Freshwater flows into the fish pass from the Bay and down a system of pools and weirs that allow the fish to swim, regardless of the tide height in the Severn Estuary, up and into the Bay. The fish recognise the freshwater and enter the fish pass; they can even differentiate the water from the rivers Taff and Ely, and return to their original spawning grounds.

During spring (high) tides, a second auxiliary pass is used, which prevents saltwater entering the Bay - this pass is at a higher level. In order to operate it, three large pumps enable water to flow through this pass and out into the estuary.

## Are the fish tracked?

Yes, a monitoring system counts each fish and records its profile as it moves through the pass. This information is documented, enabling species to be identified.



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cardiffharbour.com

