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**CADW**  
**WELSH HISTORIC MONUMENTS**

Eich Cyfeirnod  
Your Reference

Ein Cyfeirnod  
Our Reference

Dyddiad  
Date

30 September 1999

Llinell Uniongyrchol 01222 82  
Direct Line 01222 82

Dear Sir/Madam

**WORLD HERITAGE SITES: THE TENTATIVE LIST OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND**

I am enclosing a copy of the new Tentative List of future candidates from the United Kingdom and Overseas Territories for nomination for inclusion on the World Heritage List over the next five to ten years.

The Castles and Town Walls of King Edward in Gwynedd (Harlech and Beaumaris castles and the town walls and castles at Conwy and Caernarfon) are already on the World Heritage List. The Blaenavon Industrial Landscape was nominated by the United Kingdom in June this year and we will know the outcome in December 2000. The other Welsh site on the new Tentative List is the Pont-Cysyllte Aqueduct, one of the world's most spectacular achievements of waterway engineering.

Yours faithfully

**T J CASSIDY**  
**Chief Executive**

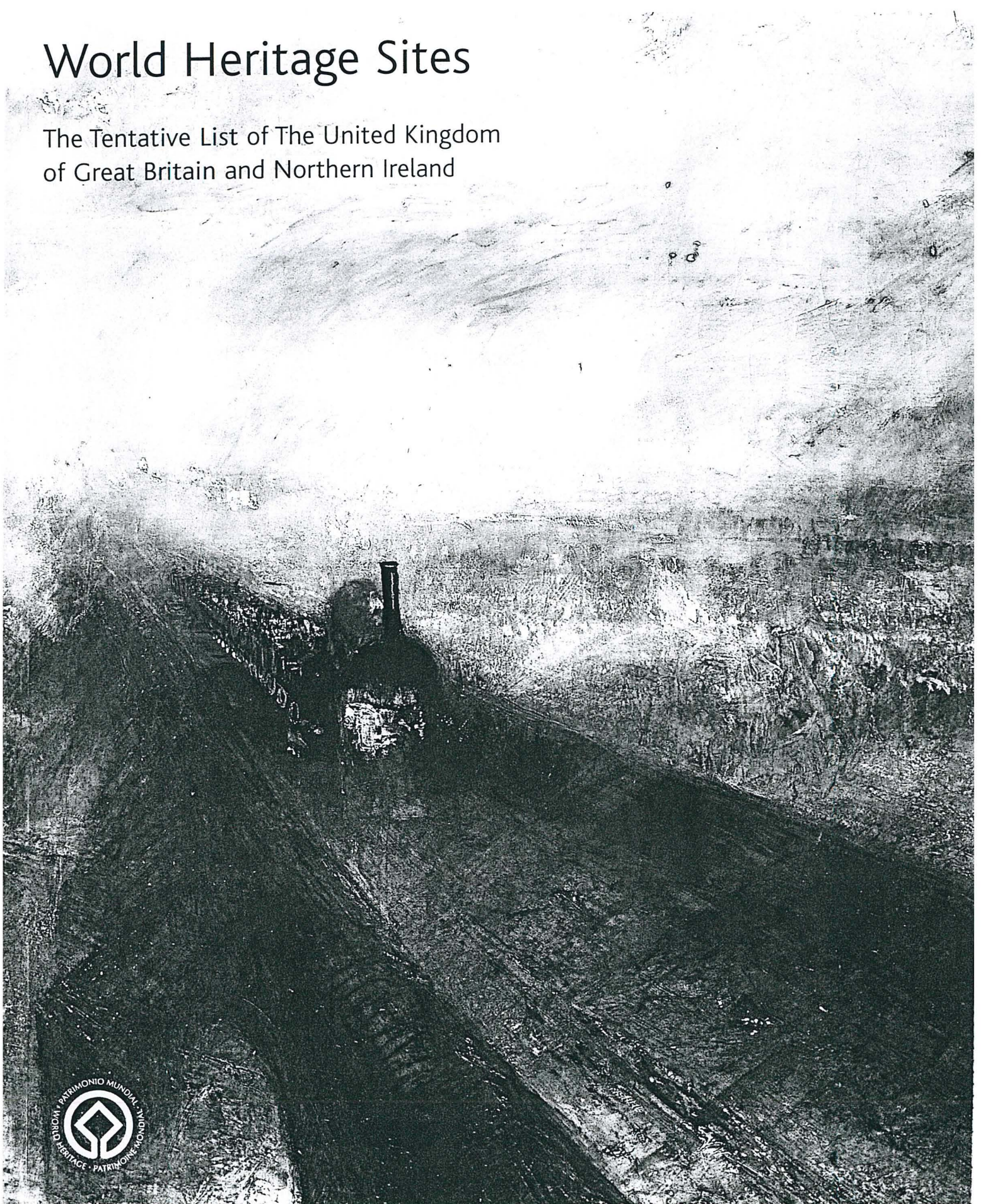
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Asiantaeth Weithredol o fewn y Cynulliad Cenedlaethol Cymru yw Cadw: Welsh Historic Monuments  
Cadw: Welsh Historic Monument is an Executive Agency within the National Assembly for Wales



# World Heritage Sites

The Tentative List of The United Kingdom  
of Great Britain and Northern Ireland



Name of Property:

# **Pont-Cysyllte Aqueduct**

Geographical Location:

## **Denbighshire, Wales**

### **Description**

Pont-Cysyllte Aqueduct is one of the world's most renowned and spectacular achievements of waterways engineering. Built as part of the improvement of transport to provide the arteries of industrialisation, the structure was a pioneer of cast iron construction and was the highest canal aqueduct ever built. As such, it is one of the heroic monuments which symbolise the world's first Industrial Revolution and its transformation of technology.

The aqueduct was built between 1795 and 1805 to carry the Ellesmere Canal over the Dee valley in North Wales. The approaching levels of the canal on either side required a crossing at 38m above the River Dee. An earlier plan to carry the canal lower by incorporating locks on either side of the valley was rejected as impractical in its water consumption, and the decision was taken to build an aqueduct of unprecedented height. The resident surveyor responsible was Thomas Telford, working under William Jessop, the most prolific canal engineer of the period.

The height necessitated the introduction of novel methods to replace the heavy construction of earlier aqueducts which had double skins of masonry and puddled clay fill. The spans were instead made of cast-iron plates bolted together into a trough, with cast-iron arch ribs supporting them from beneath. Altogether, 19 spans were built, comprising an overall length of 313m. The towpath was supported on iron braces above the 3.6m wide trough, allowing water to move freely as boats passed. All the iron members for the aqueduct were cast by William Hazledine, one of the leading iron founders of the Industrial

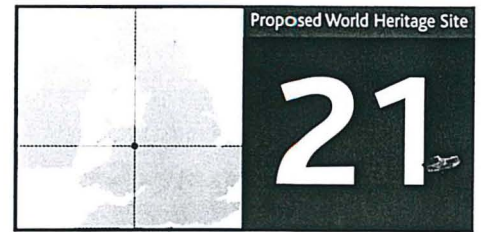
Revolution, at the nearby Plas Kynaston Ironworks, established in order to carry out the contract. The tapering masonry piers were built hollow in their upper sections to reduce their weight.

The embankment to the south is itself one of the largest canal earthworks ever constructed. Three original over-bridges, to the north and south of the aqueduct, are important examples of the composite use of cast-iron and masonry, having shallow segmental masonry arches supported by curved cast-iron ribs. To the north of the aqueduct lies Trevor Basin, where the navigable water feeder from Llangollen meets the terminus of the main line of the Ellesmere Canal as completed. The terminal basin contains a wharf for primitive railways from adjacent coal mines and the Plas Kynaston Ironworks, and there are ancillary buildings including two dry docks, a canal hotel, a former warehouse, and a lengthsman's house.

### **Boundaries**

The Site is defined as a continuous section of the original Ellesmere Canal extending for 1.5km with the aqueduct near its centre. The linear extent of the Site is from the top of the terminal basin at the north to the canal at the village of Froncysyllte in the south, with a further stretch of the Llangollen water feeder as far as the first over-bridge to the west. The Site is bounded by the historical land boundaries of the Ellesmere Canal. These consist of fences along the foot of the embankments at both ends of the aqueduct, walls and fences around the boatyard terminal basin to the north, and fences and hedges on either side of the canal.

Longitude	Latitude
003°10'22"W	52°57'62"N
----- Boundaries	

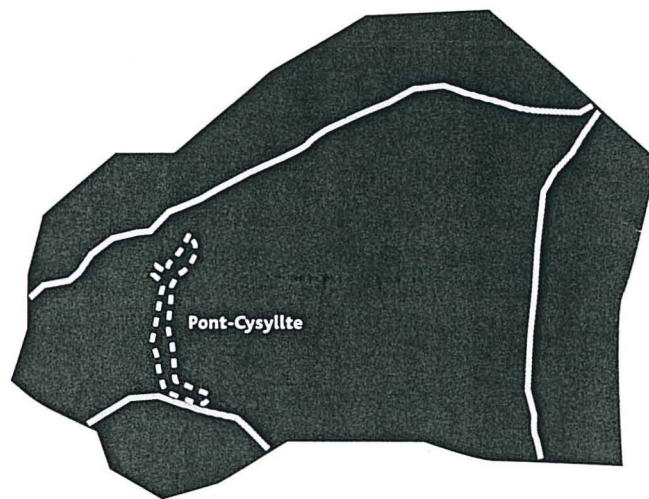


## Justification of Outstanding Universal Value

Criteria met: Cultural Criteria (i), (ii) and (iv)

### Assurances of authenticity or integrity

Pont-Cysyllte Aqueduct has benefitted from statutory protection as a Scheduled Ancient Monument since 1958 and is in the care of The British Waterways Board. It is also a Grade I Listed Building. The aqueduct and Trevor Basin form a Conservation Area. The entire fabric of the structure is as originally built, with the exception only of the towpath deck, which has been replaced. The embankments are wooded but unaltered in form. The canal over-bridges are as originally built. Ancillary buildings which are in use have been continuously adapted, but most retain their original form. The primitive railway wharves are believed to be archaeologically intact.



### Comparison with other similar properties

The TICCIH/ICOMOS International Canal Monuments List identified Pont-Cysyllte Aqueduct as one of the key waterways monuments in the world for potential inscription as a World Heritage Site. Pont-Cysyllte was the world's third iron aqueduct to be completed, but its daring and elegance made it by far the most influential. It became a symbol of technological ingenuity and contributed to the widespread acceptance of cast iron as a structural material. The project brought together an outstanding construction team which was used by Telford subsequently on other important engineering projects such as the Caledonian Canal in Scotland, and the Menai Suspension Bridge in North Wales.