

Historic hydraulic engineering archaeology relating to the lower
Nant Bawddwr/Dyfri watercourse, Llandovery, Carmarthenshire,
Wales: Initial Report

A 2020 Lockdown Archaeological Landscape Investigation Project

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The lower section of the Nant Bawddwr/Dyfri stream, north of Llandovery, Carmarthenshire, is not a natural watercourse – it is artificial, it has been the subject of significant hydraulic engineering activities in the past.



This engineered watercourse might be described as either a leat or an aqueduct. The engineering work has left a substantial – visible –

linear archaeological legacy in the landscape. Lockdown internet searches suggest that the artificial nature of the lower Nant Bawddwr/Dyfri watercourse has not previously been recognised or discussed by archaeologists, historians or interested local people.



It is hypothesised that Nant Bawddwr/the Dyfri originally flowed into the Afon Tywi at a point between the Pont Dolau-hirion bridge and The Tonn. However, from Allt Dolau-herion and Pen-y-banc, the former natural stream enters a substantial, engineered aqueduct/leat system which redirects the Bawddwr/Dyfri away from the Tywi.

The engineered Nant Bawddwr/Dyfri leat has been cut into the foot of the rising ground of Allt-y-Gilfach.



The visible hydraulic engineering resembles the Roman Cothi and Annell leats built to convey water to the Dolaucothi gold mining complex at Pumsaint.ⁱ Unlike the Dolaucothi leats, the Bawddwr/Dyfri leat is ‘in water’ and has been maintained in use as an active, functioning watercourse to the present day.

The outer-banked Bawddwr/Dyfri leat tracks the foot of Allt-y-Gilfach until it makes an abrupt ninety degree turn at Gilfach.



This deliberate turn redirects the embanked leat toward the rising ground of Llanfair-ar-y-bryn and the c.70AD Roman auxiliary fort of Alabum and its bath house. This blatant, geometric deviation in the alignment of the leat is graphically illustrated in historic cartography and air photography.ⁱⁱ Had the leat been designed and built as a medieval, or post-medieval, installation to serve Llandovery alone, it might have followed a more direct, southward alignment, alongside the Cil-y-cwm Road from near Gilfach toward the outskirts of the town.

Copy and paste this number 52.003488, -3.799252 into Google. So doing should provide an impressive Google Maps/Google Earth satellite image of the 90 degree turn in the aqueduct.

The embanked course of the Nant Bawddwr/Dyfri aqueduct approaches and passes beneath the Swansea-Shrewsbury railway.



It then approaches the site of the former Llanfair-ar-y-bryn Vicarage – the probable location of the Roman bath house associated with the Alabum fort.ⁱⁱⁱ It is hypothesised that the original purpose of the engineered section of the Bawddwr/Dyfri was to supply water to the Roman fort and its bath house. Engineered aqueducts and leats were commonly used to supply water to Roman bath houses, *et cetera*.

Two sites have been suggested for the Alabum fort bath house. The first, below the ramparts on the western side of the fort; a location

later occupied by the Llanfair-ar-y-bryn Vicarage.^{iv} The second, a site below the ramparts on the eastern side of the fort near the Afan Brân.^v This engineered Bawddwr/Dyfri aqueduct/leat hypothesis supports the location of a Roman bath house on the western side of the fort.

A civilian vicus was established north of the fort. The vicus would have been occupied by Romanised people who may also have used the leat and the bath house. The Alabum fort was established c.70AD and occupied until c.130AD. Pottery finds suggest continued Roman/Romanised activity on or around the site in the 3rd and 4th centuries.

After the Roman withdrawal from Britain in 410AD, it is assumed that the presumed Roman Bawddwr/Dyfri leat was maintained by whosoever was occupying the land below Allt Dolau-herion in the early medieval period. Where the leat runs along the foot of Allt-y-Gilfach, the water level is above natural ground level. Failure to maintain the banks of the leat would have resulted in wet, flooded pastures. Thus, the leat may have continued to flow from the Roman period into the Medieval.

The Rev. Gruffydd Evans demonstrated (in 1912) that the water-name 'Bawddwr' was known to residents of Llandovery, in the early 14th century, as 'Baudour'.^{vi} Evans suggested that, historically, the name 'Bawddwr/Baudour' was used to identify the watercourse that flowed through and below the town of Llandovery.^{vii} This may further confirm the antiquity of the hydraulic engineering north of Llandovery that directed the watercourse through the town and down to the Brân.

Assuming the original construction of the Bawddwr/Dyfri leat was indeed contemporary with the establishment of the Alabum fort, c.70AD; it seems likely that, with the passage of time, the resulting 'tailrace' watercourse south of/below the fort's bath house would have been interpreted locally as a 'natural' water feature. A watercourse thus accepted - and named - could be cited as a legal boundry marker in official Charters and provide the Dyfri 'water-name' element of the historic place-name, Llanymddyfri/Llandovery.

Circa 1113AD, the Norman, Richard Fitz Pons, began to build a new castle at Llandovery. At the time, this castle was known as the "castle of Cantref Bychan". Fitz Pons selected a site alongside the Afon Brân. He made use of a natural rocky bluff that stood above the Brân, which he re-engineered as a motte and bailey-type castle.

Another useful feature at Fitz Pons' chosen location was the possible, original Roman outfall of the Nant Bawddwr/Dyfri leat into the Afon Brân - midway between the castle mound and the modern Waterloo Street bridge (the course of Nant Bawddwr/the Dyfri is recorded on modern maps crossing Llandovery north-south and entering the Brân at this location). Thus, the Bawddwr/Dyfri took on a military defensive role by filling and maintaining a wet moat/ditch around Llandovery castle.^{viii}

It is tempting to speculate that the very early origins of the locally favoured Cymraig/Welsh water-name 'Bawddwr' (dirty water) may predate the use of the watercourse as an insanitary - urban - open sewer. The early 14th century – pre-urban (?) - water-name 'Baudour' may relate to the use of Welsh water to defend the castle

of the occupying Normans? The Norman castle builders had ‘dirtied’ the water?

Further speculation: In England, the Normans are known to have built/imposed castles over pre-existing Saxon burh fortifications. Might Fitz Pons’ original castle building project have displaced a pre-existing, early medieval church building from the selected site? The Saxon burh at Oxford may provide an example of Norman refortification and the supposed replacement of a pre-existing Saxon church building.^{ix}

c.1113, Richard Fitz Pons granted the church of his new castle at Llandovery, with two carucates of land,^x to the monks of Great Malvern, Worcestershire, to establish a Benedictine Priory.^{xi}

c.1185, Rhys ap Gruffudd of Deheubarth (the Lord Rhys) expelled the brethren from the Llandovery Priory on account of their misconduct.^{xii}

There is an hypothesis that the church provided by Fitz Pons for Llandovery Priory may have been the church built within the ramparts of the Roman fort at Llanfair-ar-y-bryn.^{xiii} Should this have been the case, monks from the Priory may have used water supplied by the Bawddwr/Dyfri leat.

Some water from the Bawddwr/Dyfri appears to have been redirected to the west from a point near the end of Queen Street/Water Street, along what would become Market Street and Broad Street, eventually to flow into the Brân, west of Llandingat Church. Thus, the Bawddwr eventually featured two outfalls into the Brân.

A possible post-medieval addition to the pre-existing historic leat, presumably intended to reduce the risk of flooding in Llandovery, was a roadside spillway - Nant Oer.^{xiv} Nant Oer was built to redirect excess water from the Bawddwr/Dyfri into the Tywi at the Tonn. Historically, the road north of the Tonn was known as Heol Oer.^{xv}

To conclude:

Without the significant historic hydraulic engineering works visible north of Llandovery, it seems unlikely that the Bawddwr/Dyfri watercourse would have had such an intimate relationship with the town named after it. Had the Bawddwr/Dyfri *not* been redirected to pass through the developing medieval settlement, it seems likely that present town of Llanymddyfri/Llandovery might have been known today by a different 'water' place-name? Llanbrân, perhaps?

The Bawddwr/Dyfri watercourse is a very fragile and undervalued historical and archaeological resource. It may yet be identified as one of Llandovery's most visible, tangible links to Roman and medieval military history. Consequently, it is regrettable that so much damage has already been done to the original alignment and fabric of the Bawddwr/Dyfri leat. Most recently, significant changes have been made to the original alignment of this historic watercourse to suit residential developments along the Cil-y-cwm Road.

The Bawddwr's traditional, popular local status as a dirty, former open sewer has made it vulnerable and left it undervalued. Whilst there is little heritage marketing potential for Llandovery in the

presentation of Y Bawddwr as a former open sewer; Y Bawddwr reinterpreted as Y Dyfri (as suggested by the Rev Gruffydd Evans in 1912) and interpreted as a working Roman military and medieval leat associated with the defence of Llandovery castle, may have more heritage potential for the town?

Archaeological investigations might be focused upon analysing and interpreting the Bawddwr/Dyfri watercourse north of Llandovery and its route through the town. The surviving hydraulic engineering might be studied and dated. The phasing of the two Bawddwr/Dyfri outfalls might be studied and dated. The Bawddwr/Dyfri watercourse should be afforded statutory protection to protect it from any future developmental depredations.

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Endnotes

ⁱ https://www.wikiwand.com/en/Dolaucothi_Gold_Mines - accessed 27 July 2020.

ⁱⁱ See Google Earth: 52.003515, -3.799252

ⁱⁱⁱ See Google Earth: 52.001281, -3.795422

^{iv} <http://www.dyfedarchaeology.org.uk/projects/romanmilitary.htm> - accessed 27 July 2020.

^v <https://www.britainexpress.com/attractions.htm?attraction=821> – accessed 27 July 2020.

^{vi} Transactions of the Honourable Society of Cymmrodorion, 1911-1912, Rev. Gruffydd Evans, 'The Story of the Ancient Churches of Llandovery', p.53.

^{vii} Transactions of the Honourable Society of Cymmrodorion, 1911-1912, Rev. Gruffydd Evans, 'The Story of the Ancient Churches of Llandovery', p.53.

^{viii} http://www.darganfodsirgar.com/media/8264/walk_12_llandoverly_english.pdf - accessed 27 July 2020.

^{ix} www.castlesfortsbattles.co.uk › south east › oxford cas... – accessed 27 July 2020.

^x Two carucates of land - approximately 240 acres.

^{xi} <https://www.monasticwales.org/site/16> - accessed 28 July 2020.

^{xii} <https://www.monasticwales.org/site/16> - accessed 28 July 2020.

^{xiii} "LLANDOVERY: BENEDICTINE PRIORY." *Abbeys and Priors: Abbeys and Priors of Medieval Wales*, by JANET BURTON and KAREN STÖBER, 1st ed., University of Wales Press, 2015, pp. 112–113, www.jstor.org/stable/j.ctt9qhdvn.36. - accessed 28 July 2020. <https://britishlistedbuildings.co.uk/300010967-church-of-st-mary-llandoverly#.XyACUlhKjIU> - accessed 28 July 2020.

^{xiv} See Google Earth: 52.003598, -3.802320

^{xv} Transactions of the Honourable Society of Cymmrodorion, 1911-1912, Rev. Gruffydd Evans, 'The Story of the Ancient Churches of Llandovery', p.53, note 2.

<https://www.asbriplanning.co.uk/uploads/Cilycwm%20Road%2C%20Llandovery/Archaeology%20Desk%20Based%20Assessment.pdf>

<https://www.asbriplanning.co.uk/uploads/Cilycwm%20Road%2C%20Llandovery/Archaeology%20Geophysical%20Survey.pdf>