

CPAT Report No. 1309

Whitford Dyke, Pentre-ffyddion, Flintshire

ARCHAEOLOGICAL EXCAVATIONS 2014



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41 Broad Street, Welshpool, Powys, SY21 7RR, United Kingdom


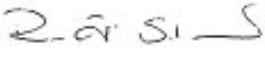
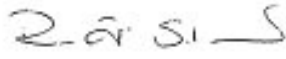
+44 (0) 1938 553 670

trust@cpat.org.uk

www.cpat.org.uk

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Prepared by:	Checked by:	Approved by:
Nigel Jones Senior Project Archaeologist 	Bob Silvester Head of Field Services 	Bob Silvester Head of Field Services 
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Summary

As part of a Cadw-funded programme the Clwyd-Powys Archaeological Trust (CPAT) has been re-examining the evidence for the Whitford Dyke in Flintshire, a linear earthwork which to date has been traced intermittently for around 9km, from a presumed northern end to the east of Trelawnyd (SJ 0834 7988) to its southern terminal (SJ 1531 7466) beyond the Holywell Earth Circle, a prehistoric hengiform monument.

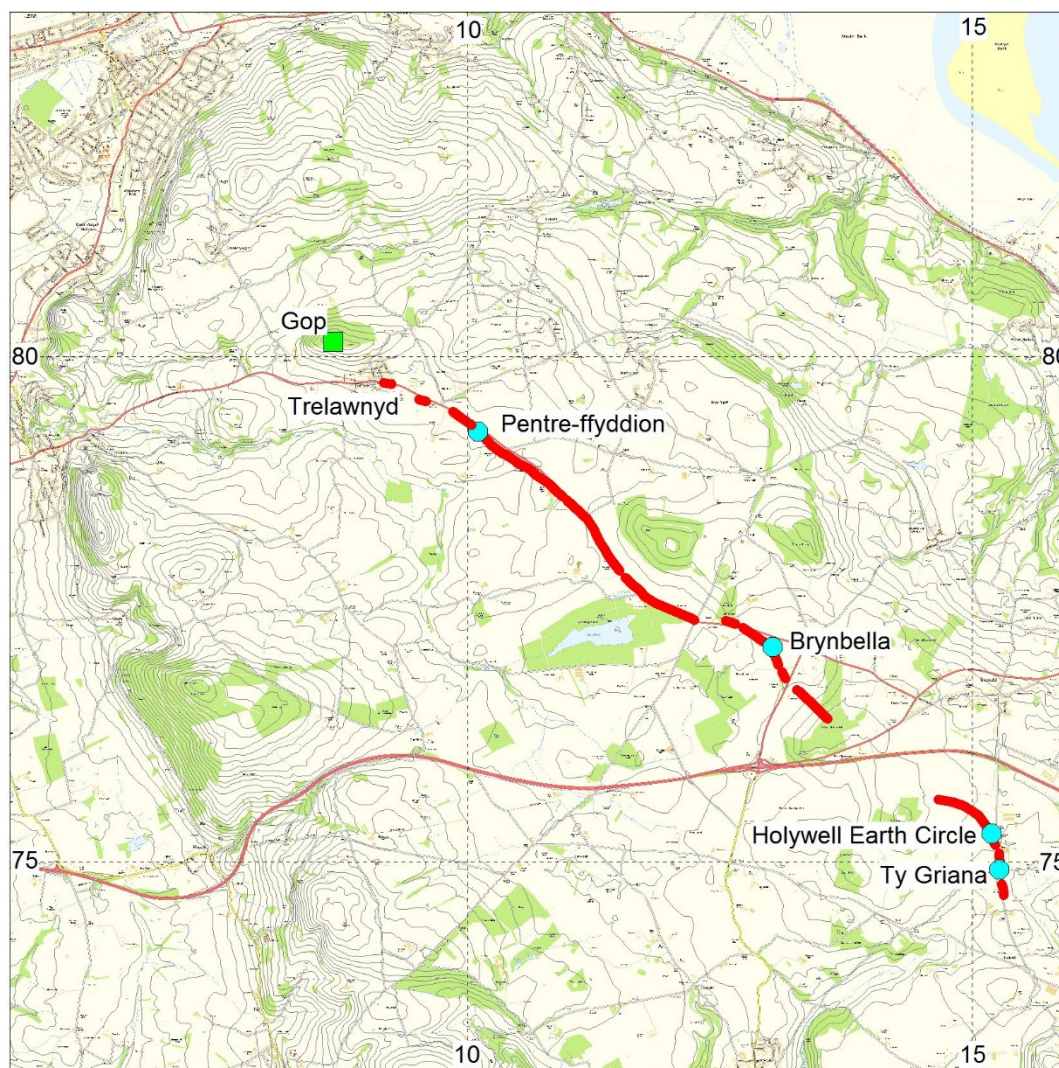
The recent excavations were conducted to investigate a relatively well-preserved, scheduled section of the dyke near Pentre-ffyddion, to the east of Trelawnyd (SAM Fl 122). The visible bank is around 16.5m wide and 0.7m high, but with no obvious surface traces of flanking ditches.

The excavation confirmed that the base of the bank survives beneath the ploughsoil, although only to a height of around 0.2m and with no evidence for a buried soil beneath the monument. The bank is in fact flanked by two ditches, separated by 10.45m, although it is uncertain as to whether the bank originally filled this space completely, or whether there was a slight berm to either side, the surviving width of the bank being only 8.7m. Both ditches were broad, but relatively shallow and were partly rock-cut into the underlying limestone bedrock. The north-eastern ditch measured 4.8m by 0.85m, while the south-western ditch was slightly narrower at 4.2m across, but with a comparable depth. The upper fills of both ditches contained 18th/19th-century ceramics, but no dating evidence was recovered from the lower fills, which also failed to provide any material suitable for radiocarbon dating.

The results have demonstrated that this section of the dyke has the same overall form as other sections of the monument recorded by Sir Cyril Fox in the 1920s, and more recently by the Offa's Dyke Project and CPAT. Although there is some variation in the dimensions of the monument it is not unreasonable to assume that the upstanding sections of the dyke form part of a single boundary earthwork, which may have been discontinuous, and is assumed to date from the early medieval period.

1. Introduction

- 1.1 The linear earthwork known as the Whitford Dyke (PRNs 28097 and 28099) has been traced intermittently for around 9km, from a presumed northern end to the east of Trelawnyd (SJ 0916 7973) to its southern terminal (SJ 1531 7466) beyond the Holywell Earth Circle, a prehistoric hengiform monument (Fig. 1). The majority of the upstanding sections have been scheduled in the belief that they were originally part of Offa's Dyke, although this has now been discounted and the monument is instead seen as a completely separate boundary earthwork or short dyke which has been termed the Whitford Dyke, and is assumed to belong to the early medieval period.



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Fig. 1 The course of the Whitford Dyke through Flintshire

- 1.2 As part of a Cadw-funded project the Clwyd-Powys Archaeological Trust has been re-examining the evidence for the Whitford Dyke. The recent excavations were conducted to investigate a relatively well-preserved section of the dyke to the east of Trelawnyd, which is a scheduled ancient monument (SAM Fl122; PRN 106707). Scheduled monument consent for the work was initially granted in July 2013, with the intention of conducting the work in the autumn of that year. However, a spell of poor weather

prevented access and the work was subsequently postponed until the following year, eventually being undertaken in August 2014.

2 Excavations at Pentre-ffyddion

- 2.1 The excavations consisted of a single trench measuring 28.3m in length and 1.5m wide, positioned across a prominent section of the Dyke (Fig. 2) which survives as a broad bank aligned north-west to south-east and measuring up to 16.5m wide and 0.7m high; there were no surface indication of flanking ditches, although these had been noted by Fox in the 1920s (Fox 1955, 8-9). The topsoil was removed by machine, together with the upper fill of both ditches which, on the basis of artefactual evidence, had been deposited during the 19th century.

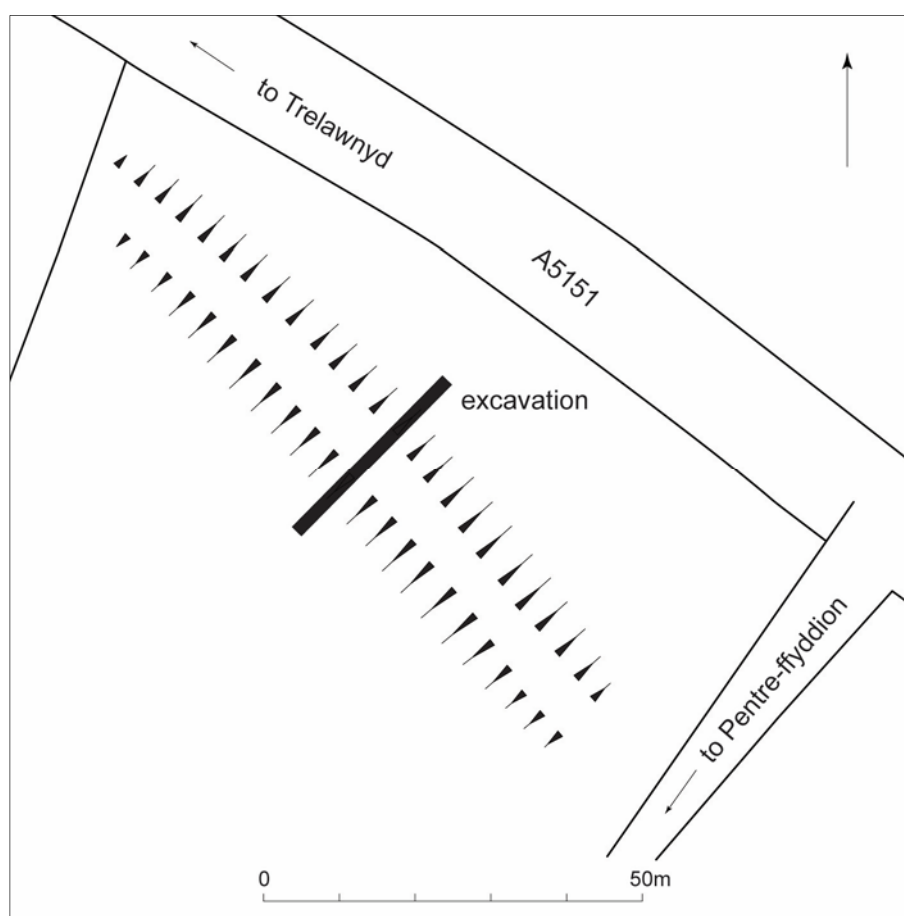


Fig. 2 The location of the 2014 excavation

- 2.2 The trench was cleaned by hand and following initial investigations it was determined that further excavation would focus on a 0.9m-wide sondage along the south-eastern side of the trench in order to ensure that the research objectives were achieved within the allotted time. At the north-eastern end of the trench the topsoil was removed to reveal the underlying limestone bedrock (27), the upper surface of which (03) had evidently been disturbed by ploughing. This had been cut by a broad ditch (10), the inner edge of which had been dug through a natural deposit of pink clay (25) which overlay the bedrock throughout the remainder of the trench and had also been removed by the south-western ditch (12).



Fig. 3 The section excavated through the bank, viewed from the north.
Photo CPAT 3877-0048.

The Bank

- 2.3 The bank appears to have been relatively broad, occupying the 10.45m-wide space between the flanking ditches, but now surviving to a width of around 8.7m. Although the visible earthwork gives the impression of a substantial surviving bank the excavations have demonstrated that a maximum of only 0.2m of undisturbed bank material survives beneath a similar depth of ploughsoil (o1).
- 2.4 There was no evidence for a buried soil beneath the bank, with the basal deposit, an orange-brown sandy clay (15), up to 0.18m thick, lying directly above the natural clay subsoil (13 and 25). This was sealed beneath a layer of limestone rubble and rounded stones, the average size of which was around 100mm, with the largest measuring up to 180mm across. The action of the plough had evidently spread the stony material to either side of the bank, although this was more evident on the south-western side where a thin layer of stone (19) extended down the side of the bank and across the inner edge of the ditch. A similar spread (o8) on the north-eastern side of the bank was far less extensive.
- 2.5 The varying spreads of plough-dispersed material to either side of the bank may reflect the former presence of a field boundary on the north-eastern side, the only surviving evidence for which consisted of two course of stones (o7) which appeared to be embedded within the upper ditch fills (o2 and 16). The stones were not substantial enough to constitute a free-standing wall and as they do not appear to have formed a revetment against the bank it is perhaps possible that they had been deposited at the base of, or against, a hedge for which there is no other evidence.



Fig. 4 Part of the stony make-up (o4) for the bank, with the possible boundary indicated by the line of stones (o7) to the left. Photo CPAT 3877-0010



Fig. 5 The south-western side of the bank after the removal of the plough-spread stone (19), viewed from the north-west. Photo CPAT 3877-0025.



Fig. 6 The possible boundary on the north-eastern side of the bank, indicated by the line of stones (o7). Photo CPAT 3877-0008

The North-eastern Ditch

- 2.6 The north-eastern ditch (10) was partly rock-cut, measuring 4.8m wide and up to 0.85m deep, with a flat base. The outer edge had been cut through the limestone bedrock and was relatively steep, while the inner edge was less clearly defined, having been cut through the clay subsoil (25) which overlay the bedrock across most of the trench.
- 2.7 The thin basal fill, a yellow-brown sandy silt (17), was sealed by a 0.4m-thick layer of reddish-brown sandy silt (16), neither deposit producing any artefactual evidence or material suitable for radiocarbon dating, and with evidence of bioturbation being present at the lowest levels. The ditch is likely to have stabilised after the deposition of layer 16 and the upper fill, a brown sandy silt (o2), up to 0.46m thick, could be the result of much later cultivation since it contained several sherds of 18th/19th-century pottery.



Fig. 7 The north-eastern ditch (10), viewed from the north-west.
Photo CPAT 3877-0029

The South-western Ditch

- 2.8 The corresponding ditch on the south-western side of the bank was similarly broad and shallow, being around 4.2m wide and up to 0.85m deep, and also had a flat base. At its lowest levels the ditch had been cut through the bedrock, although for the majority of the depth the ditch had been dug through the natural clay subsoil (25 and 26).
- 2.9 The basal fill consisted of loose grey-brown sand (24), which was sealed by a layer of pinkish-brown clay (23) against the inner edge. Secondary infilling consisted of a 0.28m-thick layer of orange-brown silt sand (21) across the north-eastern half of the ditch, which was partly sealed by a mottled clay (22) which lay against the outer edge of the ditch. A period of stabilisation is then indicated by the spread of stone (19) which was redeposited from the bank across the inner edge of the ditch, partly sealing layer 21. The upper fill consisted of a reddish-brown silty sand (20), up to 0.5m thick. None of the ditch deposits produced any artefactual evidence or material suitable for radiocarbon dating. The ditch silts were sealed by a layer of brown silty sand (18) which lay directly below the topsoil and contained a range of 18/19th-century artefacts, probably representing a former ploughsoil.



Fig. 8 The south-western ditch (12), viewed from the north.
Photo CPAT 3877-0030



Fig. 9 The south-western side of the bank after the removal of the plough-spread stone (19), viewed from the north-west. Photo CPAT 3877-0025.

3 Discussion

- 3.1 As presently understood there are three distinct lengths of linear earthwork, the form and courses of which suggest that they may have been part of the same, discontinuous monument known as the Whitford Dyke, extending for at least 9km in overall length. The long held belief that this was the northern end of Offa's Dyke has been challenged since the 1980s and it is now generally accepted that the earthworks are not related to Offa's great earthwork, lying around 20km from the most northerly extent of the Dyke near Treuddyn.
- 3.2 Excavations by CPAT near Gop Farm in 2012 demonstrated beyond all doubt that what had previously been seen as the northern end of the dyke is no more than a trackway and its associated embankment (Jones *et al.* 2013). This also brings into question the other sections in the village of Trelawnyd, where a low bank along the north side of the A5151 had been suggested as a continuation of the dyke and scheduled as such. However, none of the investigations which have been conducted within the village over the years has provided any evidence to confirm the presence of the dyke and it now seems reasonable to assume that the most north-westerly point to which it can be traced is some 250m east of Trelawnyd, adjacent to Pwll Gwyn (SJ 0834 7988).
- 3.3 The upstanding section at Pwll Gwyn survives as a low bank less than 1m high and perhaps 10m wide, extending for only 75m across a pasture field, beyond which Fox recorded traces in what were then a meadow and an arable field (Fox 1955, 8-9), confirming a section around 270m in length. There is then no evidence for the dyke for a further 75m, until it was mapped by the Ordnance Survey in 1834-5 (Surveyors' Drawing No. 343), recording a continuous stretch of 1.4km as far as Tre Abbot-fawr, of which perhaps 600m can still be recognised as an earthwork. Until recently the only excavation conducted along this section was undertaken in 1976 as part of the University of Manchester's Offa's Dyke Project, and consisted of a single trench within a scheduled section (SJ 104 790). The excavators concluded that the upstanding earthwork was perhaps a trackway rather than part of the dyke and no flanking ditches were identified (Hill and Worthington 2003, 160; Site 28). This appears to be at odds with both the Ordnance Survey's observations in the early 19th century and also with earlier documentary records for the Talacre Estate, which refer to the dyke forming part of the parish boundary in this area, which indeed it does, being marked by a series of boundary stones. The 2014 excavations near Pentre-ffyddion were located in a field to the west of the 1976 investigations and have confirmed the presence of a broad, low bank, flanked on either side by shallow, rock-cut ditches. Here the bank survives to a height of 0.7m and has been spread by ploughing to a width of around 16.5m wide, although it would originally have been between 8.7m and 10.45m in width. The ditches were between 4.2m and 4.5m wide and 0.85m deep.
- 3.4 Beyond Tre Abbot-fawr the line of the dyke is crossed by the road from Trelawnyd to Holywell, and for the next 1.8km, as far as Tan-yr-allt, one has to rely on the Surveyors' Drawing for the course of the monument, as no visible traces are now apparent. As with the previous section the only excavated evidence is negative, the result of two trenches 200m south-east of Tre Abbot-bach, again undertaken by the Offa's Dyke Project in 1976. The hedgebank, which Fox (1955, 9) had interpreted as the remains of the dyke, proved to be post-medieval in date, while excavations to the bedrock failed to identify any ditch (Hill and Worthington 2003, 159; Site 18).

- 3.5 The best preserved lengths of the dyke are those which stretch intermittently for 1.2km, extending to either side of the Bronze Age barrow at Brynbella, which was incorporated into the dyke where it shows a distinct change in alignment. To the north-west of the barrow the dyke survives for around 340m as far as the main road, with a short section beyond in Coed y Cornel-cae which was mapped by the Ordnance Survey but discounted as being too slight following investigations by the Offa's Dyke Project (Hill and Worthington 2003, 159; Site 88).
- 3.6 Fox had excavated a section north-west of Brynbella in 1925, and this was reopened in 1979 by the Offa's Dyke Project. Both excavations confirmed this to be the most impressive part of the dyke, both in terms of its scale and its survival. The central bank, preserved in part as hedgebank, stands to at least 2m in height, while the flanking ditches are both rock-cut, measuring 3.7m across and 1.4m to 1.8m deep and separated by 20m between the internal ditch edges. It is interesting to note that this length was included on the 1st edition of the 25" mapping of 1872, but not on the 2nd and 3rd editions, perhaps indicating its denudation by ploughing during this period.
- 3.7 Heading south-south-east from Brynbella the dyke changes angle again at Rhydwen Farm, continuing in a south-easterly direction to Coed Pen-y-gelli. Excavations in the early 1980s confirmed its presence in an arable field, revealing the remains of a stone bank 12m wide flanked by shallow ditches 4.5m wide and 0.5m deep. Other investigations around the same time concluded that the dyke did not continue into Coed Pen-y-gelli beyond its visible extent (Hill and Worthington 2003, 158).
- 3.8 There is no evidence for a continuation of the dyke in a south-easterly direction for around 1.3km, until its course is revealed as cropmarks in the area of the old Holywell Racecourse. Observations during the construction of the A55 failed to identify the dyke and recent geophysical surveys conducted as part of the present project have similarly failed to produce any evidence of its presence. A further 1.3km of dyke are currently known heading south from the racecourse, although the form and overall survival are slighter. As at Brynbella the dyke again incorporates a prehistoric earthwork, with the Neolithic hengiform monument and later barrow known as the Holywell Earth Circle marking another change in alignment. Excavations by Fox in 1926 and by CPAT in 2009 have demonstrated that to the north-east of the Earth Circle the ditches were between 3.7-4.2m wide and 0.55-0.75m deep, being separated by no more than 6.5m, while to the south the dimensions of the ditches could not be confirmed, although their separation was seen to be slightly greater (Fox 1955, 25; Jones 2008 and 2009). The recent excavations near Ty Griana, 300m south of the Earth Circle, produced no evidence for a surviving bank, although this could originally have been up to 8m wide, but demonstrated that the ditches were between 4.9m and 5.7m wide and up to 0.7m deep. Radiocarbon dating of samples from the lower fills of the eastern ditch unexpectedly produced dates of between AD 1665-1950, presumably revealing a degree of later disturbance by later activity, perhaps related to nearby quarrying, as was more evident in the section through the western ditch and was also suggested by the limited range of charred plant remains (Grant 2012). That the origins of the earthwork belong to an earlier period can only be deduced from its relationship with the late enclosure landscape through which it runs. It clearly predates the present roads and land divisions which are likely to date from the later 18th century, the area previously having been unenclosed commonland, and also predates the 18th-century Holywell Racecourse.

- 3.10 The most southerly point to which the dyke may be traced is opposite Llyn Du, 250m south of the excavated section near Ty Griana, where the slight earthwork merges with the Babell road which may then have adopted its course.
- 3.11 As a boundary feature the earthwork runs more or less along the spine of the Flintshire plateau, dividing the hinterland of the Dee Estuary from the Vale of Clwyd. This is not to imply, however, that the entire monument is of the same date. The limited excavations undertaken so far have demonstrated considerable variation in both the dimensions and the level of preservation of the dyke (Fig. 10), perhaps indicating that it was not all constructed at the same time. There is a considerable difference between the size and separation of the ditches at Brynbella and the dimensions of the section close to the Holywell Earth Circle. Arguably then, the association between the three main sections of the dyke as proposed here has yet to be established with certainty. Hill and Worthington favoured only the more impressive earthworks either side of Brynbella as being part of the Whitford Dyke, although the morphology of the earthwork adjacent to the Holywell Earth Circle is undoubtedly similar, with a central bank and flanking ditches, and this is perhaps unlikely to be coincidental. Towards Trelawnyd, however, further work is clearly required to establish the form of the earthwork and in particular to determine with certainty the presence or absence of any associated ditches.

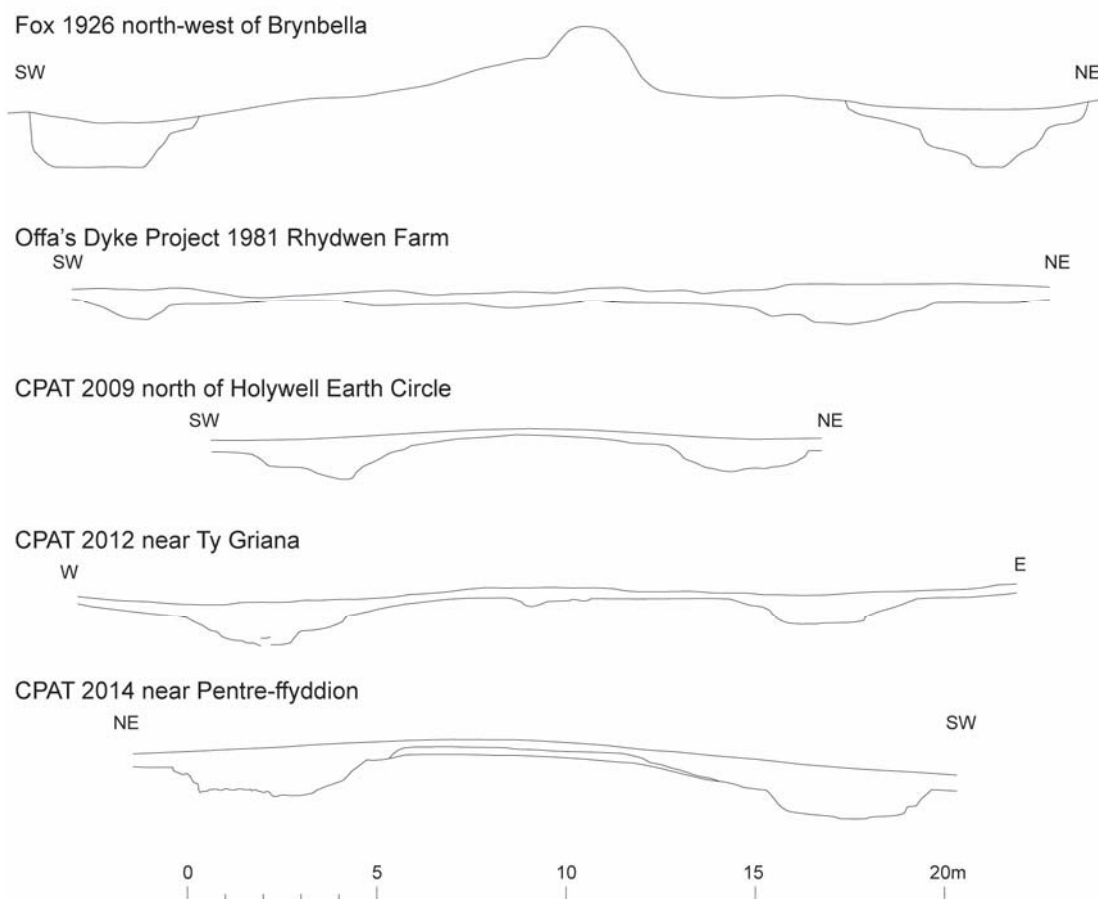


Fig. 10 Comparative profiles from four sections excavated across the Dyke

4 Acknowledgements

- 4.1 The writer would like to thank the owners, Ed and Rob Lloyd-Ellis for facilitating the work, and Ian Grant and Wendy Owen, CPAT, for their assistance with the excavations.

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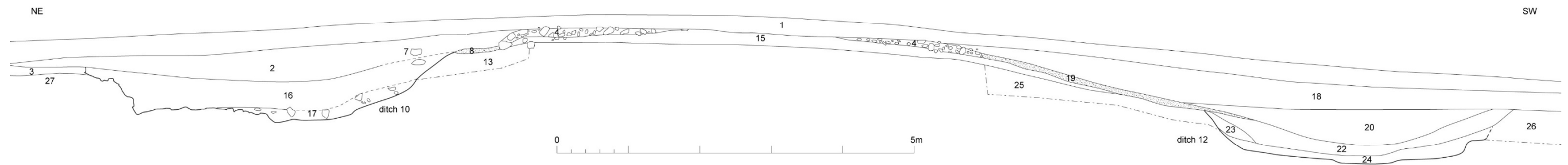


Fig. 11 The north-west-facing section of the excavation across the Whitford Dyke at Pentre-ffyddion