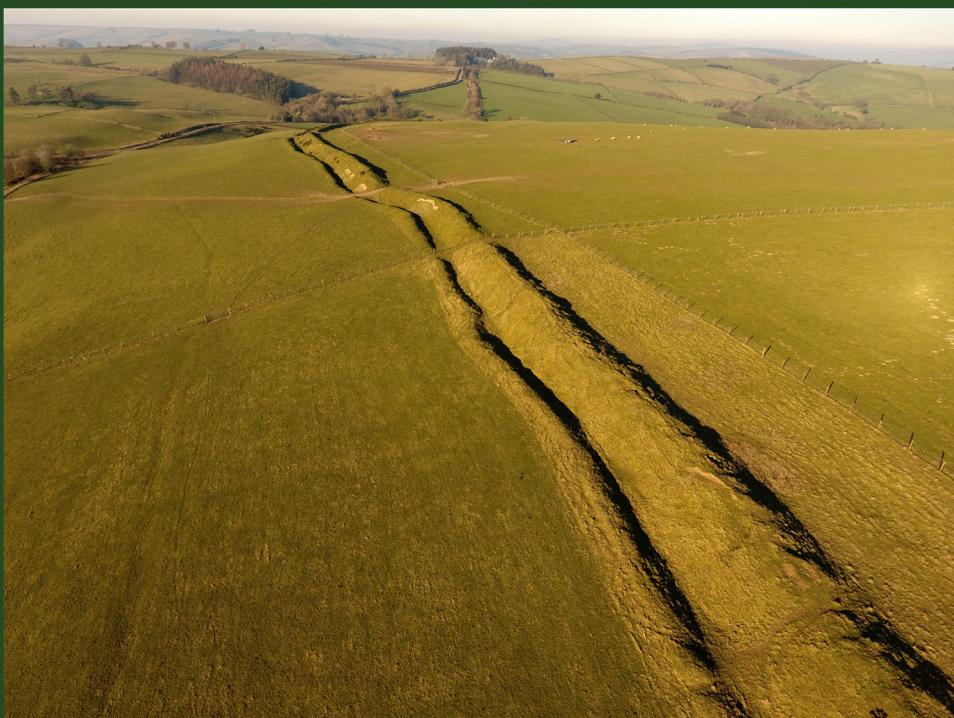


Offa's Dyke Journal



Volume 1

Edited by Howard Williams and Liam Delaney

Aims and Scope

Offa's Dyke Journal is a venue for the publication of high-quality research on the archaeology, history and heritage of frontiers and borderlands focusing on the Anglo-Welsh border. The editors invite submissions that explore dimensions of Offa's Dyke, Wat's Dyke and the 'short dykes' of western Britain, including their life-histories and landscape contexts. *ODJ* will also consider comparative studies on the material culture and monumentality of frontiers and borderlands from elsewhere in Britain, Europe and beyond. We accept:

1. Notes of up to 3,000 words
2. Interim reports on fieldwork of up to 5,000 words
3. Original discussions, syntheses and analyses of up to 10,000 words

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Volume 1 for 2019

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Hidden Earthworks: Excavation and Protection of Offa's and Wat's Dykes

Paul Belford

Concerns over the condition of linear earthworks in north-east Wales have resulted in a series of projects undertaken by the Clwyd-Powys Archaeological Trust (CPAT). These have taken place on both Offa's Dyke and Wat's Dyke, and on parts of those monuments that are both legally protected (scheduled) and those which have no such protection. This article reports on two such projects, jointly funded by Cadw and the National Trust, which looked at Offa's and Wat's Dykes in 2018 and 2019. Excavations took place on unscheduled sections of both monuments where little above-ground evidence survived; in both cases the work revealed well-preserved sections of ditch and bank. Samples were recovered for palaeoenvironmental analysis and dating. The implications of these results for research and protection of the monuments in the future are discussed.

Keywords: Dykes, Chirk, Erddig, excavation, scheduling

Introduction

Large sections of both Offa's Dyke and Wat's Dyke are protected as Scheduled Monuments – which is to say that they are on a list or schedule maintained on behalf of government ministers by the respective state heritage agencies; Cadw in Wales and Historic England in England. However, such scheduled sections are still vulnerable to damage; and unscheduled sections have no legal protection at all. In 2013, unauthorised damage to a scheduled section of Offa's Dyke near Chirk resulted in a programme of emergency recording undertaken by the Clwyd-Powys Archaeological Trust (CPAT) with funding from Cadw (Grant 2014). This work provided the first opportunity for radiocarbon dating on Offa's Dyke: samples of redeposited turf were taken which produced three radiocarbon dates in the period AD 430–651, together with a single later date of AD 887–1019. These dates provided a *terminus post quem* – a date after which the bank was built – although the discrepancies between the dates have not been resolved. This case was particularly prominent as it occurred at the beginning of the gestation of what became the Historic Environment (Wales) Act 2016. Questions around the protection of scheduled and unscheduled sections of linear earthwork monuments were discussed around the development of the 2016 Act, which happily was able to strengthen some of the protections for scheduled monuments (Belford 2017, 2018: 12–14).

During 2016–2017, CPAT surveyed the condition of unscheduled sections of Offa's and Wat's Dykes in Wrexham County Borough (Jones 2017). This work, which was funded by Cadw, revealed that some well-preserved and, in places, substantial lengths of both earthworks survived outside of the scheduled areas. Three separate but related strands of activity subsequently took place, informed by this work:

- CPAT made recommendations to Cadw for designation of those hitherto unscheduled sections of earthworks in Wrexham, in order to enhance protection of the monuments. The original scheduling process had taken place several decades previously, and changes in land use and accessibility meant that in places some well-preserved parts of both dykes were unscheduled.
- A Conservation Management Plan (CMP) for Offa's Dyke was commissioned by the Offa's Dyke Association (ODA) and funded by the ODA, Cadw and Historic England; this was undertaken by Haygarth Berry Associates and launched in 2019. Although the CMP did not include Wat's Dyke, it was an important step forward in developing a consistent approach to conserving linear earthwork monuments which could be applied to both of the monuments described in this article.
- Two excavation projects looking at unscheduled sections of both dykes were undertaken by CPAT, with funding from Cadw and the National Trust, in 2018 and 2019.

This article provides a summary overview of the third of those actions and suggests possible directions for future research and conservation. Whilst describing a specific set of circumstances – the survival, understanding and conservation of these particular monuments on National Trust properties that are also parkland landscapes – there are also broader ramifications regarding how to research and conserve Offa's and Wat's Dykes more generally, and indeed other monuments like them elsewhere in Europe.

Wat's Dyke at Erddig

Wat's Dyke is thought to have been constructed as a territorial boundary, possibly dating to the eighth or early-ninth century AD. It extended for 64km between Basingwerk (Flintshire) and Maesbury (Shropshire), and appears to have originally consisted of a rampart bank and a wide western ditch (Malim and Hayes 2008). Erddig is a stately home and estate which has been owned and managed by the National Trust since 1973. The construction of the house at Erddig began in 1684 but was not completed until the early eighteenth century. From the 1730s the estate was owned and occupied by successive generations of the Yorke family, and from 1768–1780 Philip Yorke contracted the landscape designer William Eames to create an aesthetically attractive and productive estate landscape (Oliver 2006). To do so Eames made use of some existing archaeological features, such as parts of Wat's Dyke and a motte and bailey castle, but also removed parts of Wat's Dyke near the house. Some of the upstanding remains of the dyke to the north and south of the house have been scheduled (Cadw Scheduled Monument DE152); and part of the dyke between the house and the motte and bailey was lost to a landslip in the 1980s. This exposed a section of possible bank at the north end of the scheduled area of DE152.

To the south of the house, along the west side of the drive, there is a low bank 40m long, up to 4.0m wide and 0.5m high. North of this there is no discernible bank, but instead a scarp and terrace suggesting the line of the ditch. In 1982 a section of the ditch in this area, adjacent to a cistern, was excavated under the direction of David Hill and Margaret Worthington as part of their Offa's Dyke Project (Grant and Jones 2019a: 5–6). While the results are unpublished the project archive contains a section drawing and context descriptions.

There were three aspects to the fieldwork at Erddig in 2018 (Figure 1):

- an evaluation trench across an unscheduled section of the dyke (Trench 1);
- cleaning and recording of a scheduled section exposed by recent landslip (Trench 2);
- augering to confirm the line of the dyke in front of the house.

These were undertaken by CPAT staff and volunteers with the support of National Trust staff and volunteers.

Trench 1

The evaluation trench was located approximately 40m south of the 1982 excavation at SJ 3258 4799. The line of Wat's Dyke at this point ran north–south; consequently, the trench was oriented east–west. It measured 20.0m by 1.6m in plan. Neither the bank nor ditch was evident on the surface when the trench was laid out, but substantial evidence for both emerged as the excavation proceeded (Figure 2).

The bank survived to a height of 0.7m above the original ground surface and was 9.0m wide. It had been constructed directly on undisturbed natural clay-gravel subsoil. The bank consisted of three layers. The earliest (112) comprised a dark grey gritty silt up to 0.2m thick and sealed by a thin layer of iron pan. This was overlain by an orange sandy silt (111), which was in turn capped with a clay-cobble deposit (110). Charcoal was evident within the two lower levels, and samples were taken from both of them for radiocarbon dating and Optically Stimulated Luminescence (OSL) dating. The locations of these samples are shown on Figure 3.

A shallow pit (116) was found to lie beneath the centre of the bank. This was 0.25m deep and 1.9m in diameter; it was filled with a brown silty sand which contained a single sherd of undiagnostic pottery and a small flint flake. The function of the pit is not known, but as it clearly stratigraphically pre-dated the construction of Wat's Dyke, samples were taken for radiocarbon and OSL dating.

The ditch, which had been cut through the underlying subsoil, survived to a depth of 1.5m; it was 7m wide with a small counterscarp bank (114) evident to the west which was

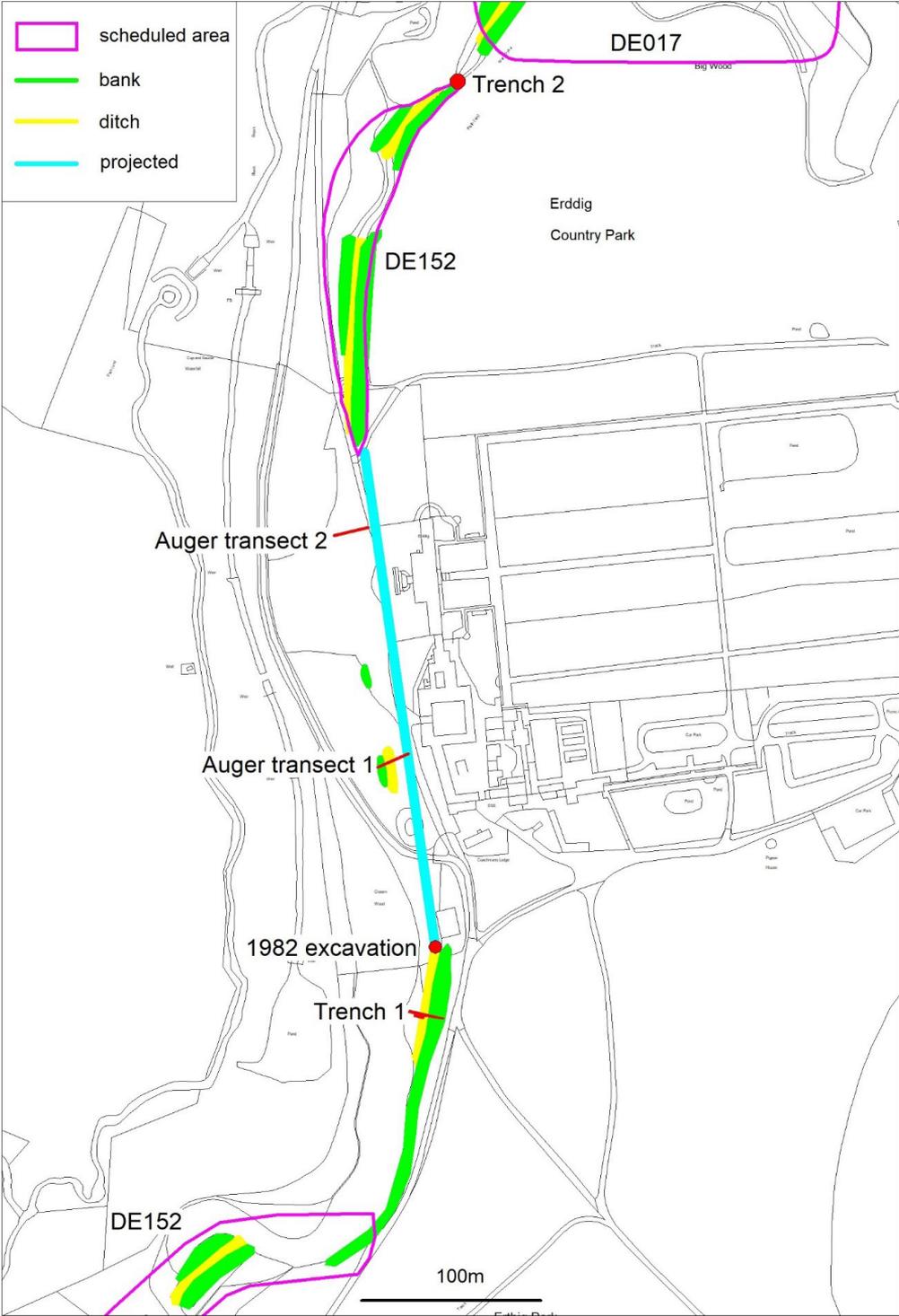


Figure 1: Map of the Erddig estate showing the house, the scheduled area of DE152, the location of the 1982 excavation, and locations of fieldwork described in the text. Original drawing by Nigel Jones © CPAT



Figure 2: Wat's Dyke at Erddig during excavation, looking east with the ditch in the foreground. The figure is kneeling at the western side of the bank. Photograph © CPAT (4526-0077)

itself 3.2m wide. The ditch had been filled by four deposits, all of which appeared to have been derived from the natural weathering of the bank. None of these contained dateable artefacts. However, the earliest ditch fill (107) contained charcoal, and again samples were taken for radiocarbon and OSL dating.

Both the bank and the ditch had been sealed by a silty clay which was similar to that found in the bank. The nature of the deposit suggested deliberate deposition rather than gradual erosion through weathering, suggesting that the upstanding bank had been levelled and used to fill the ditch. This later was in turn overlain with a silty clay containing fragments of stoneware and bottle glass consistent with a late-eighteenth or early-nineteenth century date.

Trench 2

Trench 2 investigated a section of the dyke which had been subject to a landslip, at SJ 3261 4851 (Figure 4). This revealed that the bank survived to a height of 0.8m and had been constructed directly on the original natural subsoil. As before, the extant structure of the bank consisted of three layers. Again, a putative feature was revealed beneath the centre of the bank, cut into the natural subsoil; it was 0.2m deep and 0.3m in diameter. Neither its function nor date were

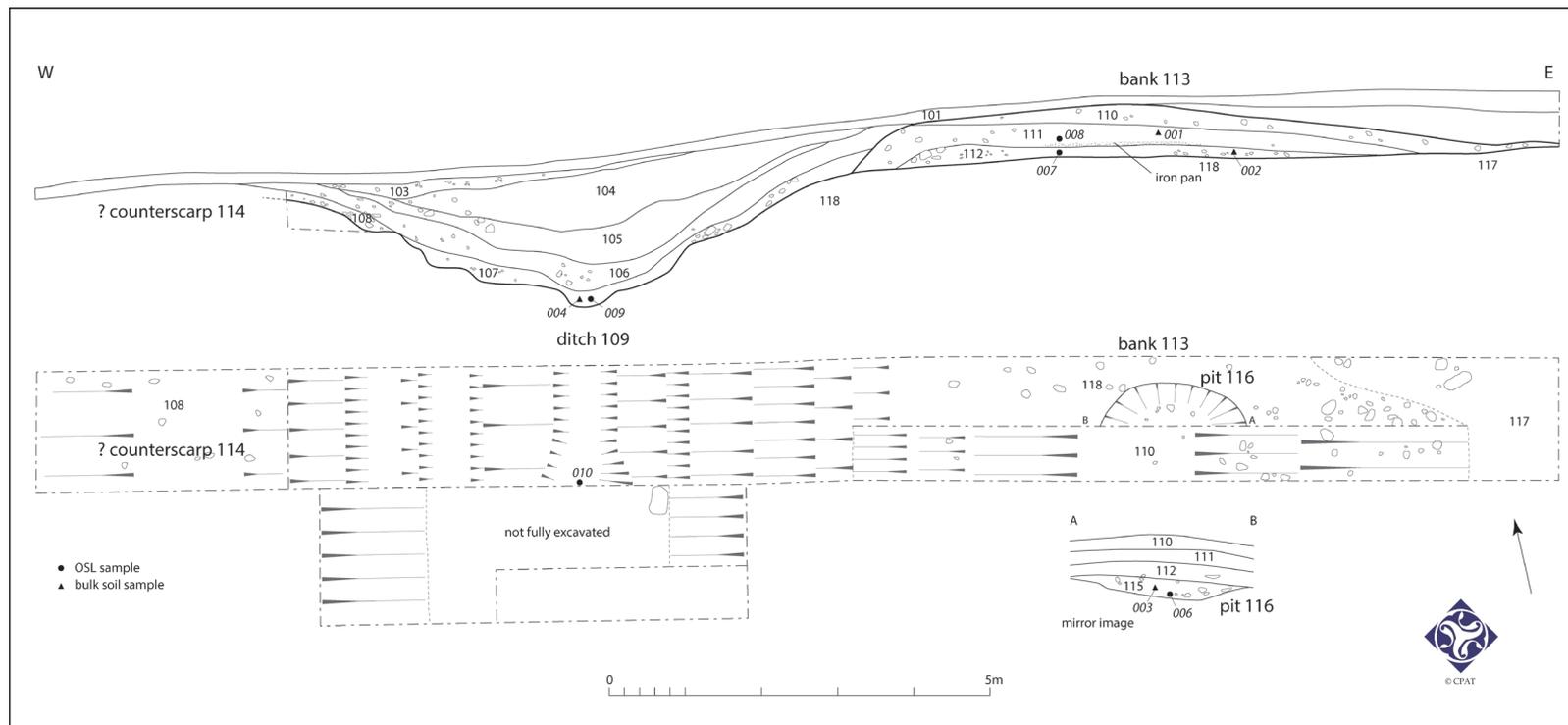


Figure 3: Plan and section of Wat's Dyke at Erddig, showing locations of samples. Original drawing by Ian Grant and Nigel Jones © CPAT



Figure 4: Cross section of Wat's Dyke at Erddig revealed in Trench 2. Photograph © CPAT (4527-0005)

evident. No material suitable for radiocarbon dating was identified in any of the recorded deposits and consequently no bulk samples were retained for further analysis.

Augering

Two auger transects were conducted across the projected line of the Dyke in front of the main house and adjoining stable block. Slight earthworks had been noted here in 2016–2017, but the extent of landscaping in the eighteenth and nineteenth centuries had been considerable. Consequently, there was no trace of the dyke on lidar at this point, even though the slight earthwork is visible to the south and north. Transect 1 consisted of seven samples over a length of 17.2m; Transect 2 consisted of six samples over a length of 17.8m. The locations of both transects are shown in Figure 1. There was a hint of the survival of a counterscarp bank in Transect 1, and the suggestion of part of the infilled ditch in Transect 2. However, in general the results were inconclusive, although it appeared that the bank had been entirely removed.

Offa's Dyke at Chirk Castle

Offa's Dyke is a linear earthwork consisting of a substantial earthen bank with a ditch to the west. Its northern section runs west of, and broadly parallel to Wat's Dyke; it typically

occupies an imposing position in the landscape with commanding views westwards (Belford 2017; Ray and Bapty 2016). The known extent of 129km of earthwork makes Offa's Dyke the longest ancient monument in the United Kingdom and one of the most impressive earthworks in Europe. Traditionally associated with King Offa, who was ruler of the Saxon kingdom of Mercia between AD 757 and 796, the dyke was probably built during the hegemony of the kingdom, but its precise date, function and role have not been determined.

Chirk Castle is owned and managed by the National Trust and the line of Offa's Dyke runs through the length of the park, passing to the west of the castle. The castle was built in 1295 by Roger Mortimer de Chirk, uncle of Roger Mortimer first Earl of March. It is a stone fortress built around a rectangular courtyard with massive round towers at the corners and midway along the northern wall. The castle is situated on elevated ground on the north side of the Ceiriog valley, and commands the entrance to the valley from the west. In 1595, the castle was bought by Thomas Myddleton, and parts of it were demolished and rebuilt during and after the Civil War (Cadw/ICOMOS 1995: 39). The surrounding parkland was originally a deer park; parts of it became gradually more formalised during the seventeenth and eighteenth centuries but most of this baroque landscape was removed by extensive landscaping in the 1760s and 1770s undertaken by William Eames, on behalf of Richard Myddelton (Cadw/ICOMOS 1995: 40). These works are largely responsible for the present-day appearance of the park.

The Dyke runs through the parkland to the north-west of Chirk Castle; most of the upstanding earthwork is a scheduled monument (DE138), but at the north end part of the dyke was removed by landscaping which also created an ornamental lake which submerged a section of the dyke (Figure 5). This area was the location of excavations in 2018 and 2019.

Excavation in 2018 comprised a single trench initially measuring 29m by 1.5m and later widened on the north side for 20.0m of its length to give a full width of 3.0m (Figures 6 and 7). This trench was partly re-excavated and extended to the east in 2019, and a small trench was excavated to the south, measuring 5.0m by 2.0m (Grant and Jones 2019b). The result from both seasons of fieldwork are combined in the account which follows.

Pre-dyke activity

The remains of the bank sealed an earlier feature. This had been encountered in the 2018 excavations and part of the rationale for fieldwork in 2019 was to further elucidate its character, extent and state of preservation. It was revealed to be a large shallow pit (32), measuring at least 1.5 m in diameter and 0.4 m deep. It was filled by four successive deposits of silty clay, the earliest of which contained charcoal remains. A sample was taken from this deposit for radiocarbon dating, and from the deposit above for OSL dating.

The bank

Despite the post-medieval landscaping activities, a firm deposit of silty clay was revealed which appeared to be the very base of the former bank (24). The surviving depth of this feature was up to 0.4m deep and contained shale and cobbles, and was also characterised by mottled patches of pale grey silty clay containing iron panning, which may represent a buried turf; it extended approximately 7.0m across the trench. Beneath it, observed in a sondage, was a firm pale silty clay sealed by a thin crust of iron panning (25). It was not possible to determine whether this was another (older) layer of the bank structure, or a buried former ground surface. Charcoal was evident throughout both of these layers, and two bulk soil samples were taken to provide material suitable for radiocarbon dating.

A sequence of deposits was exposed in 2018 beyond the presumed eastern extent of the bank. This area was re-excavated and extended in 2019, partly in order to determine whether these deposits were dyke-related/to further elucidate their nature. The excavations revealed a sequence of deposits possibly associated with the construction of the bank, and with the later landscaping of the site. Elements of this included re-deposited bank material; this was sealed with a layer of silt containing coal fragments which was in turn overlain with a peaty former ground surface from which the remains of an early-twentieth-century .303 calibre rifle cartridge were recovered. It was therefore clear there had been at least two phases of re-landscaping in the general area, dating from the mid-eighteenth and early-twentieth centuries.

The ditch

The ditch (23) was at least 6m wide and up to 2.8m deep. A deposit obscured the western edge; this (34) was possibly remnant bank material or it could have been part of the fill of the underlying pit. The profile of the ditch at this point was V-shaped, with a vertically-sided trough at the bottom which was itself 0.5m wide and 1.0m deep (Figure 8). Although a V-shaped profile has been recorded in excavations elsewhere on Offa's Dyke, for example at Buttington (Hill and Worthington 2003: 65), the addition of the 'ankle breaker' has not been observed before. Generally, the profile of the ditch along the dyke has been found to be less V-shaped and more of a rounded U-shape. Indeed, Fox's excavations '400 yards north-east of [the] north boundary of Chirk Park' recorded a flat-bottomed ditch that was almost square in profile (Fox 1955: 70).

Most of the ditch fills appeared to have been derived from the weathering of the bank. The lowest (earliest) fill was a fine blue silt with iron panning and rounded cobbles; this was 0.14m deep and partly waterlogged. Above this was a 0.3m-deep silty clay, which was in turn overlain by a deep deposit (0.9m thick) of stiff blue-grey clay. Fragments of bone and an undiagnostic unglazed ceramic sherd were recovered from this latter deposit. All three lower ditch fills contained quantities of charred material likely to be suitable for radiocarbon

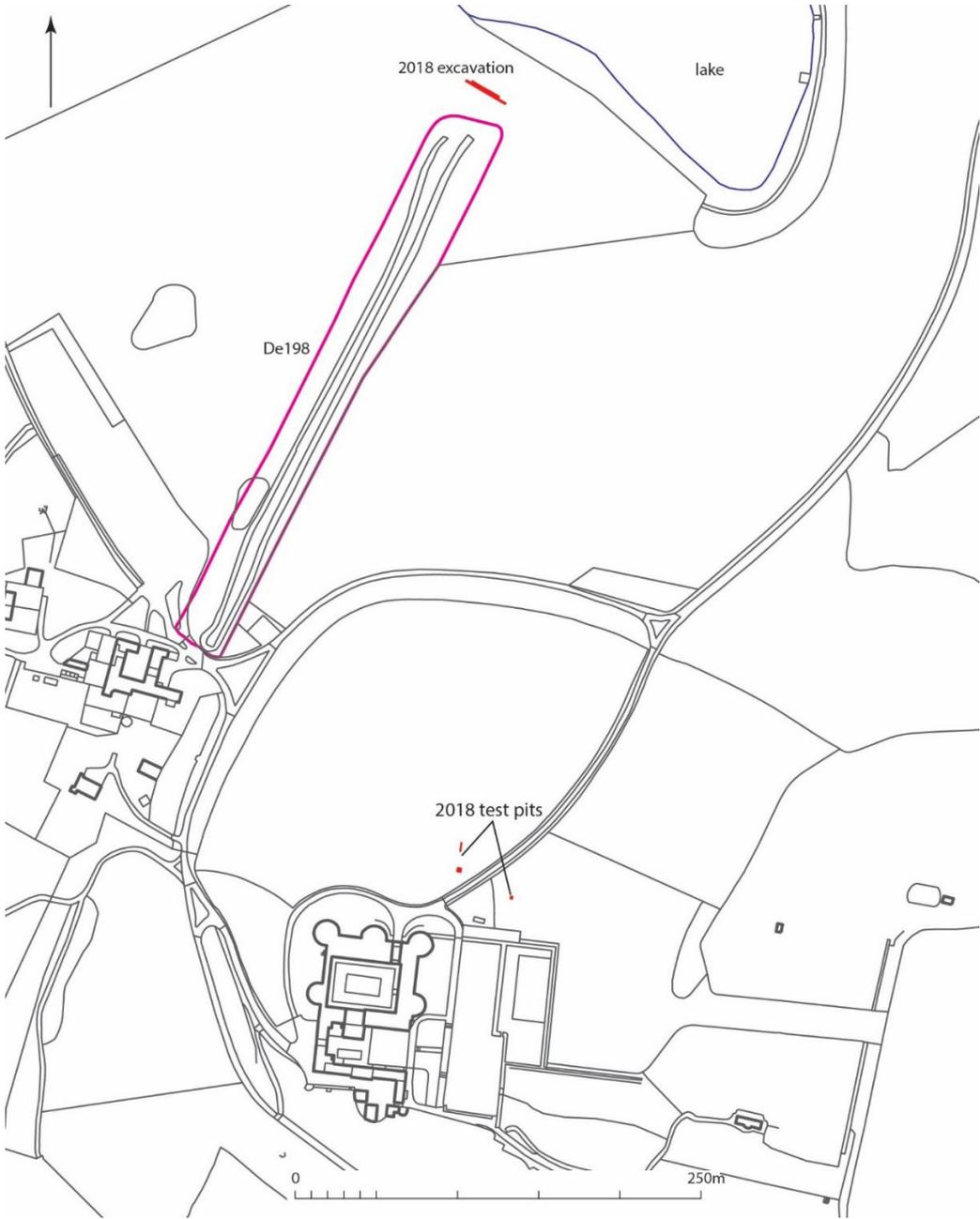


Figure 5: Map of the Chirk estate showing the castle, the lake, the scheduled area of DE198 and the locations of fieldwork described in the text. Original drawing by Nigel Jones © CPAT.

dating; consequently six bulk soil samples were taken for further scientific analysis together with two OSL cores. The locations of these samples are shown on Figure 7.

The three lower fills were sealed by a layer of orange silty clay with iron panning and following the deposition of this layer there appears to have been a long period of



Figure 6: Offa's Dyke at Chirk – a view looking south from the excavation with the scheduled part of the dyke evident beneath the trees, and the castle in the background.

Photograph © CPAT (4565-0183).

stability. The bank eroded slowly into the ditch – leaving a series of lenses of clay and shale – but there were no significant filling events until the deposition of two layers of silty clay and stone containing fragments of eighteenth and nineteenth century glass and ceramics. These clearly represented the demolition of the bank and its re-deposition filling the ditch.

There was no evidence of a counterscarp bank along the western edge of the ditch. The lidar coverage of the area suggests that there had been extensive re-landscaping of the parkland estate adjacent to and south of the lake and therefore it is likely that any remains of a bank were removed at some point in the last two hundred years.

Preservation and protection

At the time of writing the results of the programme of scientific analysis and dating are not known. However even without these results the work by CPAT at Chirk and Erddig is important for two principal reasons.

First, it highlights how both earthworks can survive in a good state of preservation below the ground, despite being virtually invisible above it. In the projects described here, both earthworks are in landscapes that were emparked in the eighteenth century

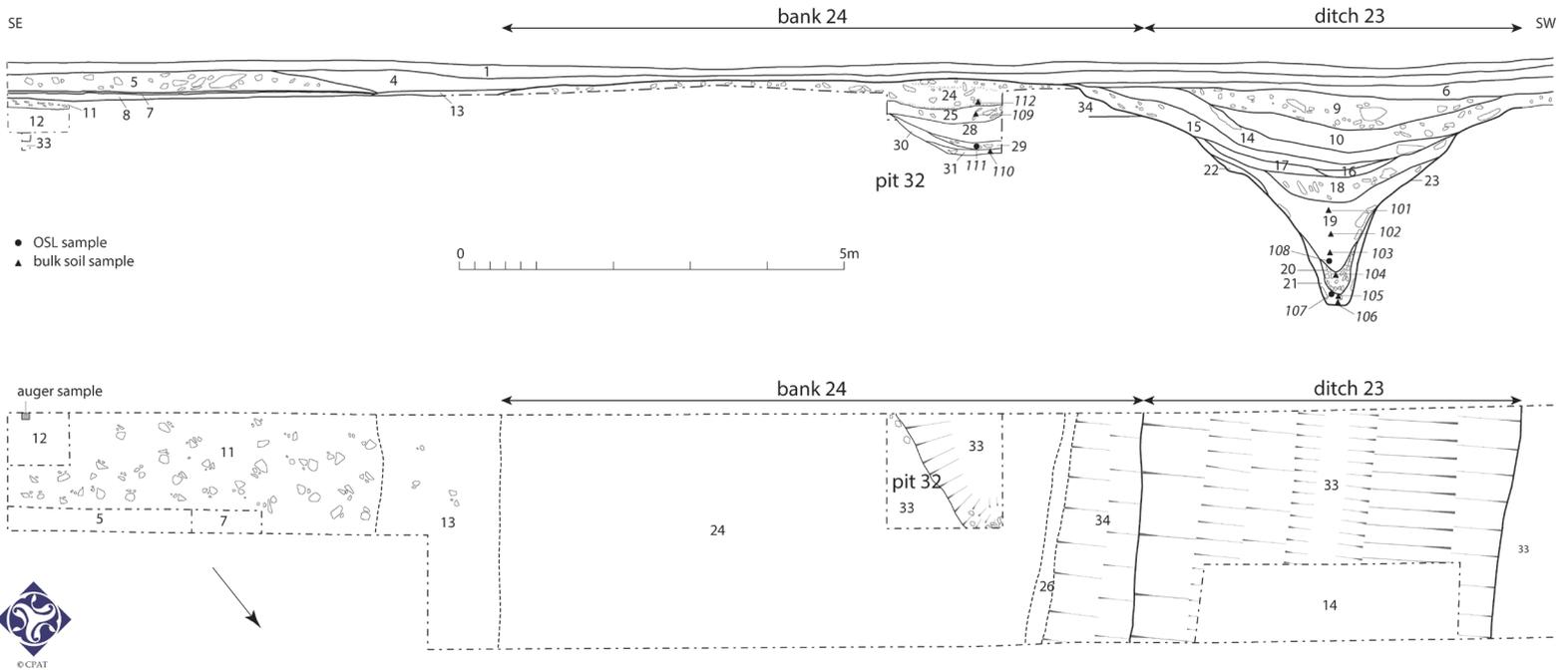


Figure 7: Plan and section of Offa's Dyke at Chirk, showing locations of samples. Original drawing by Ian Grant and Nigel Jones © CPAT



Figure 8.: The excavated section of the ditch at Chirk. Photograph © CPAT (4565-0134)

in a particular way, and this may have had a bearing on their survival. This has broader implications for the study of these and other similar monuments elsewhere. For example there is much discussion in the literature on Offa's Dyke about its original extent in Herefordshire where it is often not visible in the landscape (Fox 1955; Ray and Bapty 2016). The results from Chirk and Errdig mean that the supposed absence of both monuments must be questioned, and new research designed to investigate the possibility of below-ground survival of both banks and ditches.

Second, it shows that the advances in archaeological method and scientific techniques mean that it is possible to recover new and important information from relatively small interventions. This has implications both for research and conservation – two actions which of course go hand-in-hand (Clark 2001). However, conservation is not always as closely aligned with research as it could be. Six 'Conservation Principles' were set out by English Heritage in 2008, and subsequently restated by Historic England as the successor body for managing the historic environment in that country (English Heritage 2008). Very similar principles have also been adopted in Wales (Cadw 2011) (Table 1).

Although differently-worded and differently-ordered, both sets of principles agree that 'understanding ... significance ... is vital'. Assessment and understanding of the significance of an 'historic asset' or 'place' such as the dykes and their landscape requires consideration of four sets of values. These are: evidential value (the physical remains, including the results of previous research as well as the existing upstanding monument), historical value (the association with particular historical events or figures), aesthetic (the contribution of the 'historic asset' to the

physical, cultural and social landscapes which it occupies), and communal value (the social and economic values, and spiritual meanings, that an historic asset has for the people who relate to it). There is no question that both Offa’s Dyke and Wat’s Dyke score highly for their significance against all four values – but it is ongoing archaeological work which contributes most to the evidential value, and indirectly to the historical value too if further dating evidence can refine understanding of the purpose for which the dykes were constructed. Therefore, it is impossible to conserve the dykes without further intrusive investigation.

Table 1: Concordance between ‘Conservation Principles’ issued by the state heritage agencies in England and Wales

Cadw		Historic England	
<i>Wording</i>	<i>No.</i>	<i>Wording</i>	<i>No.</i>
Historic assets will be managed to sustain their values	1	Significant places should be managed to sustain their values	4
Understanding the significance of historic assets is vital	2	Understanding the significance of places is vital	3
The historic environment is a shared resource	3	The historic environment is a shared resource	1
Everyone will be able to participate in sustaining the historic environment	4	Everyone should be able to participate in sustaining the historic environment	2
Decisions about change must be reasonable, transparent and consistent	5	Decisions about change must be reasonable, transparent and consistent	5
Documenting and learning from decisions is essential	6	Documenting and learning from decisions is essential	6

Issues remain with conservation of the monuments, and the risks posed to it by agricultural regimes as well as casual acts of vandalism have not gone away. Although there is a particularly fluid political situation at the time of writing, it is apparent that the coming years will bring changes to the funding arrangements for agriculture in England and Wales, and both the UK government and the Welsh government are actively engaged in consultation on these matters. An important concept that is being addressed during this consultation is the concept of ‘public goods’ – in other words outcomes from agricultural activities that bring wider benefits beyond productivity and economic growth. Such ‘public goods’ have conventionally been seen in natural environment terms, with a focus on habitat- and species-diversity, water management and quality of life. However, there is real potential for new agricultural regimes to benefit the historic environment too. This is highlighted in the Offa’s Dyke Conservation Management Plan, which notes the potential scope for developing positive and active conservation of the monument through a ‘mechanism for future agricultural support that ties payments to the provision of public goods’ (Haygarth Berry Associates 2018: 154). One of the key findings of the Conservation Management Plan was that the greatest threat is posed by ‘benign neglect’, and this stems from a general lack of awareness as much as any particular land-management regime. It

is worth noting that only Offa's Dyke appears to have a sufficiently high public profile to attract funding for a Conservation Management Plan – the significance of Wat's Dyke is consistently overshadowed by its more famous counterpart to the west.

Offa's Dyke and Wat's Dyke clearly have the potential to generate public interest. As noted above Offa's Dyke in particular has a high profile; damage cases such as that in 2013 generate national media attention. The Offa's Dyke Trail is a National Trail, and through it the work of the ODA in maintaining the trail is recognised both nationally and internationally. Thousands of walkers engage with the dyke in some way every year. More specifically in connection with the archaeology, over 1,000 people directly engaged with the projects described here: either through casual visits (on average 35 people a day visited the excavations at Chirk Castle) or more formal guided tours (these attracted 550 people over two days in 2018); these figures exclude the volunteers who worked on site (Grant and Jones 2019a). This is unusual, since neither Wat's nor Offa's Dyke have been integrated into heritage interpretation at either site. Indeed, many significant stretches of both dykes have public access but limited or non-existent interpretation; therefore access and visibility are combined with other challenges to awareness. Nevertheless, a latent public interest in the archaeology of the dykes can translate to a 'public good' for their conservation and management. Any conservation work dealing with the impact of vegetation, burrowing animals, livestock, pinch points or larger-scale damage should also be accompanied by considered archaeological investigation which should where possible include intrusive work to understand the stratigraphy and dating of the dykes.

Conclusion

The results of the fieldwork described in this paper provide further insights into the construction and nature of both Wat's Dyke and Offa's Dyke. They build on previous work and add further information to support subsequent field investigation. They also highlight the need for ongoing investigation in order to deliver properly informed conservation – whether on an *ad hoc* basis or as part of mechanisms for agricultural support. However future work needs to go beyond the Offa's Dyke Conservation Management Plan's recommendations for non-intrusive survey and community engagement in conservation (Haygarth Berry Associates 2018: 157). Only a comprehensive programme of archaeological excavation and public engagement will increase both understanding and awareness of both dykes to benefit their long-term survival and significance.

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Bibliography

- Belford, P. 2017. Offa's Dyke: a line in the landscape, in T. Jenkins and R. Abbiss (eds) *Fortress Salopia*. Solihull: Helion: 60–81.
- Belford, P. 2018. Politics and heritage: developments in historic environment policy and practice in Wales. *The Historic Environment: Policy and Practice* 9(2): 1–25.
- Cadw 2011. Conservation Principles for the Sustainable Management of the Historic Environment in Wales. Cardiff: Cadw.
- Cadw/ICOMOS 1995. Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. Part 1. Parks and Gardens: Clwyd. Cardiff: Cadw.
- Clark, K. 2001. *Informed Conservation: Understanding Historic Buildings and their Landscapes for Conservation*. London: English Heritage.
- English Heritage 2008. *Conservation Principles, Policies and Guidance*. London: English Heritage.
- Fox, C. 1955. *Offa's Dyke*. London: British Academy.
- Gallagher, C. 1996. *Chirk Castle: a Survey of the Landscape*. London: National Trust.
- Grant, I. and Jones, N.W. 2019a. Wat's Dyke, Erddig, Wrexham: Community Excavation. Unpublished report. CPAT Report No. 1600.
- Grant, I. 2014. Offa's Dyke DE138, Chirk, Wrexham: Survey, Excavation and recording. Unpublished report. CPAT Report No. 1224.
- Grant, I. and Jones, N.W. 2019b. Chirk Castle, Wrexham: Community Excavation 2018. Unpublished report. CPAT Report No. 1631.
- Haygarth Berry Associates 2018. Offa's Dyke Conservation Management Plan. Draft 30 November 2018. Offa's Dyke Association.
- Hill, D. and Worthington, M. 2003. *Offa's Dyke*. Stroud: Tempus.
- Jones, N.W. 2017. Offa's and Wat's Dykes in Wrexham: Monument Condition Survey. Unpublished report. CPAT Report No. 1488.
- Malim, T. and Hayes, L. 2008. The date and nature of Wat's Dyke: a reassessment in the light of recent investigations at Gobowen, Shropshire, in S. Crawford and H. Hamerow (eds) *Anglo-Saxon Studies in Archaeology and History* 15. Oxford: Oxbow: 147–79.
- Oliver, G. 2006. *Erddig*. National Trust Guidebook. Stroud: Tempus.
- Ray, K. and Bapty, I. 2016. *Offa's Dyke. Landscape and Hegemony in Eighth-Century Britain*. Oxford: Oxbow.

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