Offa's Dyke Journal

A Journal for Linear Monuments, Frontiers & Borderlands Research

Volume 5

Edited by Howard Williams

Aims and Scope

Offa's Dyke Journal is a peer-reviewed venue for the publication of high-quality research on the archaeology, history and heritage of linear monuments, frontiers and borderlands. 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 land divisions, boundaries, frontiers and borderlands from elsewhere in Britain, Europe and beyond from prehistory to the present day. We accept:

1. Notes and Reviews 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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Front cover: Reconstruction of the Olger Dyke at Gårdeby Mark (Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev). Cover and logo design by Howard Williams and Liam Delaney.

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Rhwydwaith Clawdd Offa's Dyke Collaboratory

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Linear Pasts and Presents: Researching Dykes, Frontiers and Borderlands

Howard Williams

This editorial essay introduces the fifth volume of the Offa's Dyke Journal *(ODJ)* by presenting *a review of the contents, recent related research published elsewhere, and the Offa's Dyke Collaboratory's activities during 2022 and early 2023.*

Keywords: borderlands, dykes, frontiers, identity, linear earthworks, memory.

Introduction

> The Dyke is a strangely living thing. Farmhouses along its course are much in evidence, for it provided a natural track through wild and hilly country. Even if the Dyke were not there to see, raising up its bulky, primitive bank in the farmyard or across the pastures, the farm names would tell you. With a Plas Offa here, a Bryn Offa there, and sometimes a Tan-y-clawdd – Under the Dyke. There was not a person I spoke to, asked directions from, along the line of the Dyke, who did not know what Offa's Dyke was, where it was found (Bradley 1967: 14)

Writing before the creation of the Offa's Dyke Path in *The Geographical Magazine* for May 1967, Peter Bradley's essay on Offa's Dyke states 'The old frontier has life in it yet'. His sense of the ancient linear earthwork is influenced heavily by the writings of Sir Cyril Fox (1955) and Bradley explains that the monument marked an 'agreed frontier' between the Welsh and the Anglo-Saxons. Bradley also articulated how the monument possessed a legacy in the contemporary landscape from hill farms to steel-works and collieries. It was still 'boldly traversing' the landscape and affords the visitor with an:

> ...unforgettable excitement in finding it for yourself in discovering the hump of it rising out of an inn yard, swelling the lawn of a cottage-hospital garden, or sweeping up as a hedge-bank to either side of a narrow Welsh lane. The Dyke is suddenly astonishingly *there.* (Bradley 1967: 17)

While inevitably dated in its conception and detail, Bradley affords us a sense of the wonder and mystery that wraps around Offa's Dyke and other ancient linear earthworks. Why, when, where, how were such monumental projects enacted; who commissioned and raised them (see Hill 2020)? The same set of questions might apply to their duration of use, reuse and abandonment. Similar questions apply to their

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significance in today's world; this 'wall' metaphorically and physically inscribes a sense of division and nationhood as it is situated between England and Wales. Equally, Offa's Dyke constitutes a sense of a borderland or 'Marcher' identities for those that live in its shadow and recognise its monumentality and legacy in both the earthwork, place-names and other references and stories linked to its presence and/or former-presence (Williams 2020a and b). Bradley only briefly and casually mentions Wat's Dyke but here too we gain a sense of an early medieval monument with a legacy in its contemporary landscape of town and country in the Anglo-Welsh borderlands, considered by Fox a precursor to Offa's Dyke (Bradley 1967: 16–17). Bradley insightfully notes that local people and visitors together might secure the future of these monuments as meaningful elements of the cultural heritage of the Welsh Marches.

What better way to introduce this fifth volume of the *Offa's Dyke Journal* that seeks to promote investigations and understanding of dykes and borders past and present. The journal provides a platform for original interdisciplinary and transdisciplinary research on linear monuments, frontiers and borderlands, including the linear monuments of the Welsh Marches. Bradley's essay serves to remind us that these monuments remain a challenge and enigmatic to this day. Yet, they have so much to tell us about past societies and their relationship to the landscape. Furthermore, while they might be long moribund and the focus of considerable neglect, misinformation, speculation, legend and myth, dykes and walls remain active components of both tangible and intangible cultural heritage. These monuments can afford senses of identity and harbour complex, often ambivalent, associations and meanings in relation to their landscape settings (cf. Mullin 2011: 102).

By way of introduction to *Offa's Dyke Journal* 5, this editorial sets out to present rationale for this open-access publication and present the 'story so far'. Next, I review the context of volume 5 before reviewing select recent other publications on linear monuments, frontiers and borderlands. The final section provides a review of the Offa's Dyke Collaboratory's principal endeavours during 2022 and early 2023.

Rationale and review

The *Offa's Dyke Journal* is an open-access peer-reviewed academic publication venue for interdisciplinary research on linear monuments, frontiers and borderlands. Since 2019, it has been edited and produced under the auspices of the the Offa's Dyke Collaboratory supported by funding by the University of Chester and the Offa's Dyke Association. The journal is published online by JAS Arqueología and paperback copies are distributed by Archaeopress. *ODJ*'s editorial board supports the work of the editor and the journal's quality and character is enhanced by the hard work of multiple expert anonymous referees assigned to each article considered for publication.

Volumes 1–3 for 2019–2021 were co-edited by Howard Williams and Liam Delaney. Each was introduced by an editorial essay and together they contained fifteen original peer-

reviewed research articles as well as five 'classics revisited' pieces (re-edited, formatted and re-published with permission, often with revised and augmented maps and images). Volume 4 for 2022 comprised an Introduction, review essay and seven peer-reviewed articles; it was co-edited by Ben Guy, Howard Williams and Liam Delaney and tackled the special issue theme of 'Borders in Early Medieval Britain'.

Volume 5 extends and enriches the scope and character of the journal and comprises this Introduction, ten peer-reviewed articles and an art project with commentaries. The first half tackles global themes and European case studies. Gideon Shelach-Lavi, Tal Ulus and Gideon Avni provide a transdisciplinary overview of the 'Walls, Border, and Frontier Zones in the Ancient and Contemporary World' workshop. They identify cross-period themes for current and future research throughout Eurasia. Next, Lisbeth Christensen provides an invaluable synthesis of fieldwork on, new scientific dating for, and interpretation of, Denmark's Olger Dyke; this includes Jørgen Andersen's artist's reconstruction that, with permission, provides the volume's front cover. A pair of exceptional syntheses by Florin Curta next consider the dates and functions of early medieaval dykes of east-central and southeastern Europe and Ukraine.

For the second half of volume 5, we turn to new research on the linear earthworks and frontiers of Britain in the first millennium AD. The archaeology of Roman Wales is insightfully evaluated by Roger White in relation to popular and academic misconceptions of it as a 'frontier'. Stemming from a broader study of linear earthworks across Britain, Erik Grigg presents the hypothesis that some dykes in Cornwall might be early medieval in date. The companion article to his earlier research on Wat's Dyke, the relationship of Offa's Dyke with water courses is explored by Howard Williams. Next, the early medieval small-finds recorded by the Portable Antiquities Scheme for the Welsh Marches are evaluated by Pauline Clarke. The fluctuating nature of Mercia's borderlands before and during the Viking period, situating those delineated by physical barriers and natural features and those with more porous or imprecise dimensions, is the focus of Morn Capper's interdisciplinary contribution. The volume is concluded by the innovative 'Walking with Offa' art project by painter Dan Llywelyn Hall in collaboration with a series of poets; reflective commentaries on this initiative are provided by artist Diane Bauer, archaeological illustrator John G. Swogger, and Howard Williams.

New research on linear earthworks

Each introduction article for volumes 1–3 aspired to survey key themes of recent research on linear earthworks (Williams and Delaney 2019; Williams 2020a; Williams 2021a). While making no claims at being exhaustive, I want to use the introduction to survey six relatively recent studies not covered by previous reviews, as well as four outputs that were published just before or since the last review in *Offa's Dyke Journal* 3. Each is worth consideraing because of their broader implications for the theory and method of investigating linear monuments, frontiers and borderlands.

Comparing frontiers

Florin Curta (2011) introduced the challenge of comparative investigations of linear frontiers across early medieval Europe. Were practical and conceived frontiers in existence, and in what specific circumstances, across early medieval Europe? The comparison is presented between two ninth-century frontiers – between Bulgaria and Byzantium during the Thirty Year Peace from AD 816 and between the West Saxons and the Danes in the late ninth century, arguing that these frontiers were precise and not zones, and relate to precise and practical roles. The Great Fence of Thrace or Erkesiya Dike is considered the 131km-long frontier established by the Bulgars as a dramatical gesture without military installations, the building of which occupied the bodies and minds of the inhabitants. Curta compares this with the linear frontier boundary established between Guthrum and King Alfred the Great in the 880s, mainly following rivers. In both instances, they served to configure loyalties along ethnic grounds and prevent movement without permission including the activities of raiders, defectors and spies in addition to regulating trade. Establishing a 'peace', each were considered by Curta as not 'segregating' but 'converging directions of political action'. This comparative approach might be extended by integrating detailed landscape analyses. Specifically, it has potential for considering the multi-functionality of linear frontiers and how different kinds of natural and human-made constructions were selected and integrated into frontiers and borderlands. Equally significant, Curta's study prompts us to pose the additional comparative question: when and why frontiers were established and when and why they were not?

Swaledale dykes

A particular focus of debate regarding the date and interpretation in the last decade has focused on the four linear earthworks known as the Grimton-Fremington dykes. Specifically, work has explored their relationship with a proposed early medieval kingdom in Upper Swaledale by Andrew Fleming who regarded them as demcarcating their eastern borders (Fleming 1998: 18–32). Ainsworth *et al.* (2015) countered this argument through a field-based and lidar mapping revaluation of the dykes. Focusing on the south-western dyke around Dykehouse Close, they propose a late Bronze Age/early–middle Iron Age date because the dyke here is cut into by medieval settlement and also post-dated by a late Iron Age or Romano-British settlement.

Fleming (2015) conceded to Ainsworth *et al.* (2015) on the dating. However, he noted that the Grinton-Fremington dykes became a boundary zone in the Anglo-Saxon period and that Upper Swaledale and Arkle Beck might have become a discrete territorial entity defined by the prehistoric linear earthworks. Furthermore, he noted that the Rue Dyke and How Dyke remain undated and need not be contemporary with the section re-dated by Ainsworth *et al.* (2015). Fleming even postulated that these dykes may have defended a prehistoric predecessor to his postulated early medieval polity, the dykes serving as boundaries for each successively, with or without refurbishment. In a broader context, drawing on the work of (among others)

Melanie Giles (2012), he identified the complex lives and afterlives of later prehistoric linear earthworks in which linear earthworks relate to 'congealed history' involving encounter, confrontation and surveillance. Significantly, he identified the contrasting interpretative frameworks within which first millennium BC and first millennium AD earthworks are approached and considered – the former as constitutive of long-term social identities, the latter in regards to elite agency, territoriality and military strategy. Fleming (2015: 24) warned that interpreting monumental linear earthworks as constituting social identity risk perpetuating a 'truism' and 'not a sufficient condition for explaining phenomena such as linear earthworks'.

Building on both Ainsworth *et al.* and Fleming's works, Swales (2019) conducted a first full place-name survey of the dykes and argued that they might represent land divisions rather than political/territorial boundaries. He points the way to future work including the need for the scientific dating of the monuments.

Together, this triad of articles have broader lessons for considering the theoretical frameworks. In addition, they show the need for careful and critical applications of survey methods and techniques. The importance of integrating systematic place-name studies is also made clear. Yet, only through sustained survey and excavation incorporating a programme of scientific dating can the chronology, functions and significances of linear earthworks be discerned.

Agential earthworks

Considering the relationship between materiality, movement and memory, Chadwick (2016) adopted a relational approach to considering the agency of later prehistoric linear earthworks focusing on Yorkshire. Such linears were perhaps intended to demarcate claims to territorial spaces and access to grazing and water, and in other cases more to do with channelling movement along agreed or designated pathways. Focusing on the Aberford Dykes comprising of Grim's Ditch, South Dyke, Becca Banks and Woodhouse Moor Rein, Chadwick identifies their 'attentive attunement to topography' (Chadwick 2016: 257), whether as 'guides to movement, and/or statements of tenure'. Chadwick also considers how assemblies and ceremonies might have taken place in ' buffer zones' between communities existing where linears intersect, while overlapping earthworks might suggest the 'politics of contestation and appropriation' (Chadwick 2016: 259). For Roman Rig, the impression is of a multi-phased late prehistoric monument whose 'meanings and purpose might have changed over time, together with the flux and flow of the meshworks of agencies and affordances' (Chadwick 2016: 262). They may have been accretive monuments persisting and being augmented over multiple generations, acquiring significance in social memories and some passing into associations with legends and myths (Chadwick 2016: 264).

Rather than presuming a singular intended outcome in building linear earthworks, Chadwick's approach considered intended and unintended consequences – 'agential presences' on mobility and memory and thus in constructing power relationships and social

identities (Chadwick 2016: 267). From this perspective, linear earthworks might result from a wide range of 'choices, improvisations and aleatory engagements' (Chadwick 2016: 263).

Chadwick's insights require further consideration and application. Perhaps most significant of all, this approach aids in considering the temporalities and mnemonics of linear monuments by understanding their biographies beyond the initial intentions of their creators and their intended impact and efficacy (Chadwick 2016: 251). Unfortunately, with the brief exceptions of discussions of the long-term use and reuse of the Sledmere Green Lane (Yorkshire), Bokerley Dyke (Dorset/Wiltshire), Portway, Andover (Hampshire), and Aves Ditch (Oxfordshire), Chadwick focuses on late Bronze Age, Iron Age and Romano-British linears. As a result, while recognising the need to consider linear monuments' biographies (Chadwick 2016: 266–267, 269), there remains much untapped potential for considering this approach over the longue durée of monumental land divisions (cf. Seaman 2019). Despite Fleming's (2015) aforementioned concerns regarding the 'truisms' of explaining later prehistoric linear earthworks in terms of social identity, there is potential for developing this approach to include moving beyond map-based two-dimensional perspectives. Furthermore, it is important to combine tackling the material agencies of earthworks upon channelling and curtailing mobility with attention to their role in surveillance and communication, and doing so in relation to both movement along and across both land and water features (cf. Williams 2021b).

Dating the Clawdd Mawr cross-ridge dyke

Returning to the Welsh Marches, Mason (2019) reported on excavations ahead of a windfarm's construction of the Clawdd Mawr cross-ridge dyke, Glyncorrwg, Aberwynfi, North Port Talbot. The dyke is one of twenty-three known from the Glamorgan/Monmouthshire uplands. The work did not provide conclusive dates: the monument was confirmed as dating to before c. AD 800 but might have been far older, dating back to the Late Neolithic/Early Bronze Age: matching the OSL date provided by the buried soil layer. However, the base of the secondary ditch fill indicate that this 200m-long monument had largely silted up during the first to eighth centuries AD, so a Romano-British or early medieval date for the earthwork remains a possibility. This fieldwork provides another example of the importance of excavation combined with scientific dating using Optically Stimulated Luminescence (OSL): the first attempted for the short dykes of south-east Wales (cf. Seaman 2019).

Understanding the Black Pig's Dyke

The monograph presenting the results of the excavations and analysis of the Black Pig's Dyke or Worm Ditch, Co. Monaghan, was released just before the publication of *Offa's Dyke Journal* volume 3 and so has not been reviewed in this journal (O'Drisceoil and Walsh 2021). The monument comprises two parallel banks with respective northern ditches, together with a palisade to their north, running for 9.85km between wetlands, loughs and rivers. The

excavations and geophysical survey are placed in wider context and the project has multiple implications of wider importance in the study of linear earthworks.

The first key implication from the fieldwork on the Black Pig's Dyke is how careful excavation and survey combined with radiocarbon dating can together enrich our understanding of the date, extent, character and context of the monument. Black Pig's Dyke is now understood to be a multi-phased earthwork starting life as the southern bank-and-ditch during the second millennium BC (early and middle Bronze Age) and being augmented by a northern bank-and-ditch in the in the early Iron Age (between the sixth–second century BC) with the palisade added in the first century BC and falling into disrepair by AD 80. The wider context of a largely neglected category of later prehistoric monument is fully explored and their diversity recognised and addressed (O'Drisceoil and Walsh 2021: 111–128); the possible military, territorial and ritual interpretations are outlined as well as limitations identified with each explanation (O'Drisceoil and Walsh 2021: 98–108). The argument is proposed that Black Pig's Dyke, and other larger linear earthworks, might constitute elements of Iron Age territorial oppida equivalent to British sites like Stanwick (North Yorkshire) and Bagendon (Gloucestershire) to 'delineate extensive tracts of strategically situated landscape' (O'Drisceoil and Walsh 2021: 155). As well as controlling strategic routes, the Black Pig's Dyke was one component of broader Iron Age 'powerscapes' (O'Drisceoil and Walsh 2021: 142–157)

The second broader implication for the investigations of the Black Pig's Dyke is the problematic desire in both academia and popular culture to tie together archaeology and mythology. Certainly, it represents yet another example where linear earthworks attract folklore (the nineteenth-century story of a schoolteacher who transforms into a pig and gores the landscape; O'Drisceoil and Walsh 2021: 161–168). Yet for the Black Pig's Dyke the temptation has long been present to match the archaeology to far-older mythology had has had overt political aims and contexts in recent times. The dyke was first identified by 'ardent Unionist' William De Vismes Kane from 1909 as an 'ancient boundary fortification of the Uladh'. The monument's proximity to the Northern Ireland border following partition in 1921, and especially since the 'Troubles' from 1969, encouraged both popular and academic attitudes to consider the Black Pig's Dyke to be an Irish earthwork imitation of Roman frontiers 'borders'. This conception fostered considerable interest from both nationalist and loyalist standpoints (O'Drisceoil and Walsh 2021: 40–42, 102; cf. Williams 2020a).

Dating land divisions

Griffiths *et al.* (2022) provided a deep-time perspective on land division focusing on the English north-east Midlands and Yorkshire. They explored the timing and tempo of the emergence of different categories of linear monument and feature, thus exploring their shifting economic, social and political significance. Using scientific dating and deploying Bayesian chronological modelling of the radiocarbon dates, both site-specific and broader long-term patterns of scale and frequency of divisions were discerned.

Specifically, linear earthwork construction was dated from the first millennium BC and considered as part of a broader trend in articulating tenure, inheritance and relatedness as components of social identity (Griffiths *et al.* 2022: 229).

Mapping Fisi Tea, Tongatapu

New research from the Pacific island of Tongatapu analysed the Fisi Tea earthwork at the elite centre of Lapaha using lidar technology in combination with targeted excavations. The research revealed its method of construction, labour organisation and workforce size as well as its significance as a potential indicator of warfare in Tonga's political system. One of seven newly identified linear fortifications, its rampart and ditch were mapped and five radiocarbon dates obtained from two interventions. The monument was dated to the fifteenth or sixteenth centuries AD and comprised of consistent form although sections might have been heightened at specific intervals to afford viewing platforms and may have continued to the sea made of perishable materials. The monument is considered a territorial boundary that was both militarily functional and conveyed prestige and symbolic association with the Lapaha leaders. The study not only showed the global importance of investigating linear earthworks, but also the potential for parallels in considering political organisation and military defence alongside their other functions, significances and agencies.

Drowned dykes

Geophysical and geoarchaeological investigations were conducted into submerged medieval dyke systems in the Wadden Sea off the coast of the Rungholt area of North Frisia. A landscape of reclaimed marsh and fenlands had been developed between the eighth and eleventh centuries AD but larger dykes were constructed in the twelfth and thirteenth centuries. This landscape was submerged by storms of the later medieval and early modern periods, specifically the retreat of the coastline by c. 25km inland by the AD 1362 event. This landscape was identified and mapped using magnetic gradiometry, marine reflection seismics, coring and aerial photographs. The drowned landscape was revised from older records and not only comprised the Niedam dyke but also two tidal gates and several terps. Their location and morphology were shown to differ from expectations and older records (Wilken *et al.* 2022: 18). While different in function from terrestrial linears, there are lessons from this work in regards to the battery of methods and techniques used to investigate them as part of a landscape. Furthermore, the study considered the building, maintenance and significance of dykes as well as their landscape context in terms of long-term development and abandonment.

Together, and alongside studies reviewed in the editorials for volumes 1, 2 and 3, these studies afford a sense of the varied approaches adopted towards, and the developing global reach of, theoretical debates, interdisciplinary approaches and methodological applications for linear monuments. As such, they set the scene for future work.

Collaboratory activities, 2022–early 2023

The mainstay of the Collaboratory activities has been the production of this journal and the maintenance of the Collaboratory website and blog. Picking up on annual surveys of the Offa's Dyke Collaboratory's activities reported in volumes 1–3, I here review the principal endeavour which took place during 2022 and early 2023.

Early medieval Wales: research priorities for frontiers and contested landscapes

A critical development for the Collaboratory has been the new 'Research Framework for the Archaeology of Early Medieval Wales c. AD 400–1070' (Comeau and Seaman 2023). Due recognition is given to this journal as a venue for open access research alongside other recent publications and theses. The 'development of understanding of dyke systems' is recognised as a key priority for future research for not only the development and transformation of frontiers but the concept of 'contested landscapes' more broadly. The importance of community engagement and research impact for linear earthworks is recognised as integral to early medieval archaeological research in Wales.

Offa's Dyke: encounters and explanations[1]

A key Collaboratory development has been the 'Encounters and Explanations' walk by Professor Keith Ray which involved 23 days' continuous walking (day by day without a day's break), and eigtheen 'co-walkers', covering 336.64km (209.178 miles). It was designed to establish in the public eye that the Dyke and the long-distance Path are not coterminous, given only around 50% of the length of the Dyke is followed directly by the Path. The Walk was also designed to 'foreground' the ongoing reconnaissance work being done (especially in the far south and in the far north of its route) which indicates that Offa's Dyke might have originally run 'from sea to sea' and that Asser's late ninth-century statement to this effect was not mere hyperbole (Ray *et al.* 2021). As such, it was the first walk to follow the whole course of the designed and built linear earthwork. The Walk had two other purposes. The first was to garner further material for Professor Ray's forthcoming guidebook *Offa's Dyke: Encounters and Explanations* which aims to complement walking guides by focusing on how to understand the linear earthwork. The second further purpose was to be able to research both route and Dyke while doing a full 'traverse' of the border landscapes. This will inform the writing of an entirely new version of the 2016 book (Ray and Bapty 2016), provisional re-titled *Offa's Dyke: Structures, Landscapes and Hegemony in 8th-Century Britain* to include fresh discoveries and insights. The walk was shared online via a detailed and informative series of videos by Professor Ray.

[1] https://twitter.com/digitalself4

Borderland events [2]

During 2022 and early 2023, a series of other public events and interdisciplinary meeting took place related to the Collaboratory. These included Howard Williams presenting on 'After Rome: Chester and the Dark Ages' at the Chester Heritage Festival, 27 June 2022.[3] Organised by Ray Bailey, the Offa's Dyke Collaboratory North 'The Enigma of the Flintshire Dykes' workshop was held at the Greenfield Valley Heritage Park on 17 August 2022 and included talks and discussion by Ray Bailey and Howard Williams. Meanwhile, the *What's Wat's Dyke?* comic was belatedly launched at the Northop History Day on 1 October 2022 (see Swogger and Williams 2021; Williams and Swogger 2021). The Trefonen Rural Protection Group hosted talks by Howard Williams and Dan Llywelyn Hall on the 'Walking with Offa' project on 11 November 2022. Next, Howard Williams attended and presented in the 'Walls, Borders and Frontier Zones' workshop reviewed in this volume by Shelach-Lavi *et al* as well as participating in the associated two-day study tour, 17–22 December 2022.

Digital dykes

The Offa's Dyke Collaboratory's digital engagement has continued apace. In addition to the aforementioned Encounters and Explanations walk being shared by Keith Ray using videos posted on Twitter, the Offa's Dyke Collaboratory blog has provided a platform for critiques of existing heritage interpretations panels and signs for Offa's Dyke, both along its line (as at Coed Talon) and elsewhere (as for Criccieth Castle). Also, Williams has composed a critical review of past attempts to envision Offa's Dyke as well as reporting on encounters with brand-new heritage interpretation panels for Wat's Dyke at Soughton and Offa's Dyke near Bronygarth. Considering heritage interpretation in new fashions, he presented new initiatives for potential 'London tube map'-style heritage trails along both Offa's Dyke and Wat's Dyke and connecting other sites, monuments and landscape along the border.

Conclusion

This open-access academic venture has established itself as a distinctive venue fostering new research and public understanding regarding the complex global story of walls, barriers and frontier zones from prehistoric and ancient societies to the medieval and modern world. In doing so, the *Offa's Dyke Journal* does not only present reliable peer-reviewed academic research in an accessible venue, it also critiques and combats both misinformation and disinformation shared about this aspect of the human past in popular culture and political discourse in today's world. Promoting an informed and nuanced conversation about their stories and legacies and the positive dimensions of linear monuments is thus a key aspiration of the *Offa's Dyke Journal* as both an academic and open-access resource. In doing so, we can learn about the human past, recognise how

2 As reviewed on the Offa's Dyke Collaboratory blog: https://offaswatsdyke.wordpress.com/

3 https://www.youtube.com/watch?v=Ush52CK_oKo&t=59s

these material traces inform contemporary identities and society, and both recognise their legacies as well as celebrate their redundancies.

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Insights from a Recent Workshop on Walls, Borders, and Frontier Zones in the Ancient and the Contemporary World

Gideon Shelach-Lavi, Tal Ulus and Gideon Avni

This article reports on the 'Walls, Borders, and Frontier Zones in the Ancient and Contemporary World' workshop and its implications of transdisciplinary research for building comparative insights into the uses, meanings and experiences of border and wall constructions in the past and present.

Keywords: borders, dykes, frontier zones, migration, walls, historical analogies.

The workshop titled 'Walls, Borders, and Frontier Zones in the Ancient and the Contemporary World' was held at the Hebrew University of Jerusalem, 18–22 December 2022.[1] In recent years, borders, the crossing of borders by immigrants, refugees and asylum seekers, and the construction of walls and fences to stop or control their movement, have become contested issues and the focus of popular and academic debates. Nevertheless, we organised this workshop with the underline understanding that those issues are not new; they have deep roots in world history and are reflected in the archaeology and history of different cultures and communities affecting many different parts of the world. We argue that comparing past and present phenomenon, and case studies from different parts of the world can generate novel insights and fruitful discussions.

The workshop brought together more than twenty scholars, from Israel and abroad, including archaeologists, historians, geographers, sociologists, anthropologists, and political scientists who work in diverse periods and in (seemingly) dissimilar regions. The aim was to focus on thematic issues which were addressed from comparative perspectives. Part of the workshop was conducted in the field, in relevant sites located in Israel's modern and ancient frontier zone, the Negev. We organised the workshop as part of *The Wall: People and Ecology in Medieval Mongolia and China*, an ERC funded project that focuses on what is, perhaps, the most enigmatic episode of 'Great Wall' construction in China and Mongolia. The wall system in question is roughly dated to the tenth to thirteenth centuries AD and is located in present-day northern China and Mongolia. It covers a distance of over 4,000km, including walls and ditches, camps and other auxiliary structures (Shelach-Lavi *et al.* 2020a and 2020b). The project combines archaeological, historical and palaeo-climatic research aiming at a better understanding

[1] The workshop was sponsored by the Israel Academy of Sciences and Humanities; The Wall (ERC grant agreement No 882894); The Hebrew University; The Confucius Center of the Hebrew University. For details of the workshop and papers' abstracts see: https://thewall.huji.ac.il/conferences

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of the purposes for the construction of this wall-system, how it functioned, why it was abandoned (Storozum *et al.* 2021).[2]

We invited participants in the conference to address two main themes: The first focused on walls and border demarcations and addressed such questions as: Why walls were built in the past and are being built today? Can we compare past wall-building episodes (such as the Roman Limes, the Chinese 'great walls', Iranian walls) to walls currently being built in different parts of the world? Where are border walls and fences usually located and why do states, in the past and present, willingly invest large amounts of resources in their construction? Is there a single universal purpose for building walls and border barriers, or do they perform many different functions? Should we see walls as military installations or should they be associated with social, economic, and even cultural functions? Are walls and other types of border barriers associated, for example, with the movement of refugees? Can specific conditions, such as climatic changes, be associated with wall construction in the past and present? Are walls typical of the dynamics of frontier zones between settled and nomadic communities and political entities? And finally, regarding the longevity of walls; how did they function and what happened when they fell out of use?

The second theme focused on the concept of borders through the ages: How did people and societies in the past and present conceive ideas such as 'border", 'borderline', 'frontier zone', 'buffer zone'? Has there been one clear definition for those concepts, or are they contested? Do political borders necessarily overlap with other types of boundaries such as ethnic, cultural, linguistic, and economic divisions? How do borders shape the identity of people within them and their attitudes towards those outside the borders? How do internal politics and propaganda affect the concept of borders? What was the role of borderlands in the formation of nomadic tribes, chiefdoms, kingdoms, and states? How did laws and political realities shape the concept of borders/walls, and how do immigration and asylum policies of modern nation-states shape a new understanding of borders?

The comparison between the current construction of walls and fenced borders and the construction of linear barriers in the past yielded interesting insights. The place of political negotiation and rhetoric in the construction of border 'walls' is well known from recent events. For example, Massimiliano Demata (University of Turin) presented the discourse in the USA surrounding the so-called 'Trump Wall' and how different sides of this debate used images and rhetoric (rather than facts) to push forwards policies for and against the construction of border walls and the way they should be used (Demata 2022). Tal Ulus (The Hebrew University) examined public and official discourses about African asylum seekers around the globe, and how these discourses relate to climate migration. She demonstrated the change of this discourse in Israel, from a positive one,

[2] To learn more, see The Wall project's web site at https://thewall.huji.ac.il/

focused on the hardship and suffer of the refugees, to a negative one where they were called 'infiltrators' and stereotyped as 'security threat'. These discourses, in the USA and Israel have great affect on policy makers and on the construction of border fences. Very similar processes, including political disagreements and the use of rhetorical and historical analogies, were described by Johannes Lotze and Zhidong Zhang (members of The Wall project, the Hebrew University) in their analysis of debates in the Jin court during the twelfth and thirteenth centuries AD regarding the construction of long walls in China and Mongolia. Combining insights from past societies and contemporary wall-building and use, we believe that an important goal of future wall studies must be a better understanding of the negotiation and competition among different power groups, including not only governments, but also different sections of the public and interest groups, and how such debates shape (or prevent) the construction of walls and other types of border barriers.

Another interesting arena of comparison between the past and the present arose from discussions on the dynamics of border zones. A vivid debate evolved around the intended and unintended consequences of border demarcation. For example, Efrat Ben-Ze'ev (Ruppin Academic Center) argued that the recent fencing of the Israel-Egypt border catalysed an unforeseen escalation of drug smuggling activity carried out mainly by Bedouins (Ben-Ze'ev and Gazit 2020). Gideon Avni (The Hebrew University) showed how, in very similar ways, the formation of the eastern frontiers of the Roman and Byzantine empires shaped the way of life of the local (mainly nomadic) population and the equilibrium they reached with the intrusive imperial powers (Avni 2014). Those and other papers bring to our attention the fact that what we see as the consequence of border fencing is often unrelated or even contradict the reasons for which it was originally constructed. Noam Leshem (Durham University), on the other hand, argued that many of the harmful consequences of state abandonment in regions that are in-between states ('no-man's land') are, not unintended, but rather can be instrumental parts of the state's designs for those regions. The people living in those locations experience violence and neglect either because the government want to punish and suppress them or just because they were no longer deemed worthy of care (Leshem 2017). Such by-design consequences of policies probably also have a bearing on borders and frontier zones in the past and we should make more efforts to uncover them.

Another issue that was discussed mainly in regard to the past, but is, in fact, also relevant to the present, was the willingness of states to invest enormous resources in the construction of border walls, but also the limitations to the ability and willingness to invest in such projects. As expected, the most extreme examples of extravagant expenditure, not only in the construction of walls, but also in the maintenance of border control, came from Chinese history. Yuri Pines' (The Hebrew University) description of the earliest long wall in China (c. 450 BC) (Pines 2018) and David Robinson's (Colgate University) analysis of the famous Ming Great Wall and the efforts of the Ming dynasty (AD 1368–1644) to control its northern borders, provide ample historical evidence of

the scale of such investments, as well as to their consequences, including the corruption catalysed by such a large flow of resources to border areas. Another example of such expensive undertakings is the wall surrounding the oasis of Bukhara (a talk by Sören Stark, Institute for the Study of the Ancient World, New York University). However, other case studies from China and other parts of the world show that systematic research sometime reveals that the construction expenditures were much more modest than initially suggested. It turned out that many of the ancient systems did not include a formally constructed wall, and were made of linear ditches. Those system were quite extensive and could have additional elements such as palisades, but they were not as costly as the construction of large stone or earthen walls. Examples include the medieval wall systems in China and Mongolia (a talk by Gideon Shelach-Lavi, The Hebrew University), Offa's Dyke and other linear earthworks from early medieval Britain (a talk by Howard Williams, University of Chester), and similar monuments from Continental Europe during the fifth to the ninth century AD (a talk by Walter Pohl, University of Vienna) (Hill 2020; Squatriti 2021). The ubiquitous construction of ditches as border markers begs the functional question: What was the intended aim of those monuments? Could they stop invading armies or only smaller raiding parties? Or was their function associated with the movement of civilian populations, including preventing the entry of refugees, controlling trade and collecting taxes? Such questions are highly relevant to our current world as well.

We did not want the workshop to focus on the Israeli-Palestinian conflict and territorial disputes. However, such issues cannot be avoided, especially since walls of separation between Palestinian and Israeli neighbourhoods are highly visible from the venue of the workshop, at the Mt. Scopus campus of the Hebrew University. A talk by Shaul Arieli, a former policy maker and one of the top experts on the Israeli-Palestinian conflict, presented past attempts to demarcate a border between Palestinian and Israeli states. The failure to agree on such permanent borders, as Arieli describe it, was due to conflicting political interests (internal and external) and the lack of visionary political leadership (Arieli 2019). However, other aspects that are in play, such as the complexity of the intertwined demographic landscape, the symbolic meaning of fixed borders and the power of real and invented histories, are clearly relevant to our understanding of other instances of border disputes in the past and the present.

Other issues that were discussed in the workshop are highly relevant for our understanding of the past as well as the present. These included the nature and function of border crossings and the roles and significances of more pliable and ephemeral frontiers; the effects of cross-border interactions, including trade, migration, diplomatic missions, and the transformation of knowledge; and methods of identifying the political and socio-cultural borders of prehistoric and early historical societies. Many papers presented in the workshop alluded to the effects of environmental and climatic conditions, including climatic changes and periods of climatic instability. Understanding these affects and their importance in the past as well as in the present

requires us to adopt a cross disciplinary approach and develop new methodologies that advance such research beyond statements based on superficial correlations. We hope that the fruitful discussion that was established in the workshop among scholars working in different parts of the world, on different time periods, and from diverse theoretical and methodological perspectives will continue to enrich the interdisciplinary field of border studies. We are aiming to publish together some of the papers presented in the workshop and hoping that it will catalyse more cross-disciplinary publications and dialogues like those set up in the workshop.

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The Olger Dyke: An Early Roman Iron Age Linear Earthwork in Denmark

Lisbeth Christensen

The Olger Dyke is a large-scale linear earthwork in southern Jutland in Denmark which consists of a combination of earthwork and (in part) well-preserved timber palisades that can be traced for at least 12 km. The article provides a synthesis of the history of fieldwork of this monument, including detailed overviews of recent excavations, which have enabled new dating work to be carried out. This linear earthwork is unusual in that it has exceptional preservation of timber uprights in several palisade trenches, and recent dendrochronological dates combined with the application of new dating methods has enabled the construction sequence to be refined and accurately pinpointed to the early first century AD, lasting for around 100 years. The article presents the location, construction and function of the Olger Dyke together with an outline of the new dating evidence.

Keywords: Linear earthwork, Early Roman Iron Age, Denmark, timber palisades, dendrochronology

Introduction

The Olger Dyke is one of the most important and fascinating prehistoric features in southern Jutland, and it is also the largest earthwork in the region (Figure 1). The linear earthwork consists of a varying number of palisades; over long stretches of the structure, the palisades were complemented by a ditch. The purpose of the structure has long been established as a means of forming a physical barrier in areas without natural obstacles such as meadows, bog or forest (Neumann 1982).

The Olger Dyke used to be called *Ollemersvold* or *Olmersdiget*. One interpretation of the name is that it is a distorted version of *Oldemors dige*, i.e. something very old. Another interpretation is that the name derives from the Old English word *ealgian*, meaning defend, protect, or screen (Jørgensen 1928: 134). It belongs to the group of linear earthworks called *langvolde* ('long dykes') which are found across Denmark but most frequently on the Jutlandic peninsula down to the Elbe area (Neumann 1982: 49 ff.). Many of the monuments cannot be dated precisely but they are traditionally supposed to date to the Iron Age (i.e. around the turn of the millennium to c. AD 200).

The article provides a synthesis and a review of the research history as well as presenting the results of new fieldwork on the Olger Dyke. Aspects relating to the location, construction, date, and function of the Olger Dyke are discussed in the light of four recent excavations carried out during the period 2003–2022. New dating methods and dendrochronological dates from three different Danish laboratories – the now-closed Wormianum Laboratory, the Laboratory of the National Museum and most recently

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the dendrochronological department of Moesgård Museum – provide new dates for the construction and use of the Olger Dyke. The most recent dendrochronological dates come from the excavations at Ligård in 2003, at Olmersvej in 2020 and at Uge Mark in 2022. The new excavations and dendro-dating lead to a reconsideration of the chronological and physical development of the monument and its archaeological setting.

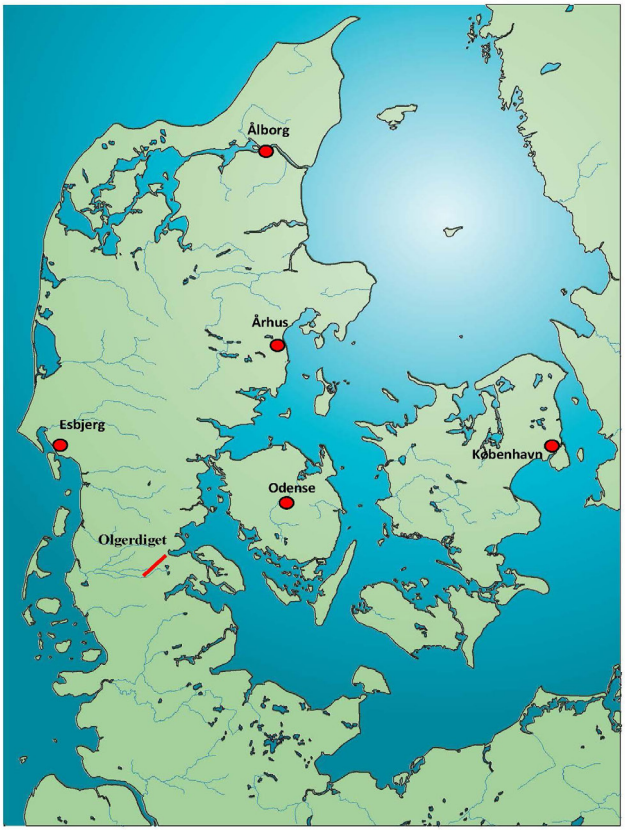

Figure 1: The location of the Olger Dyke (Olgerdiget). Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev. The red dots represent the largest cities in Denmark by population

The article presents a reassessment on the traditional dating of the Olger Dyke which affects the interpretation of the structure and function of this boundary. The significance and function of the linear earthworks have been discussed frequently, focusing on its role as a defensive barrier between two 'tribes', or alternatively as a mechanism for controlling movement along the *Ox Road* routeway. These potential functions will be considered alongside considering the Olger Dyke as a possible expression of group identity and political authority.

The four recent excavation projects will be presented in detail in a separate article here, as they are intended to serve as a basic, primary data set for both Danish and foreign scholars in order to foster future analyses of linear earthworks.

Location and research history

The south-westernmost presence of the Olger Dyke has been demonstrated in a meadow near the Bjerndrup Mølleå stream east of Gårdeby. At Broderup, the Bjerndrup Mølleå joins the river Gejlå which is part of the larger Vidå river system, and which flows into the North Sea. The Olger Dyke runs from the Bjerndrup Mølleå east of Tinglev, and continues east of Uge until Urnehoved east of Bolderslev, *i.e.* 11.6 km (Figure 2).

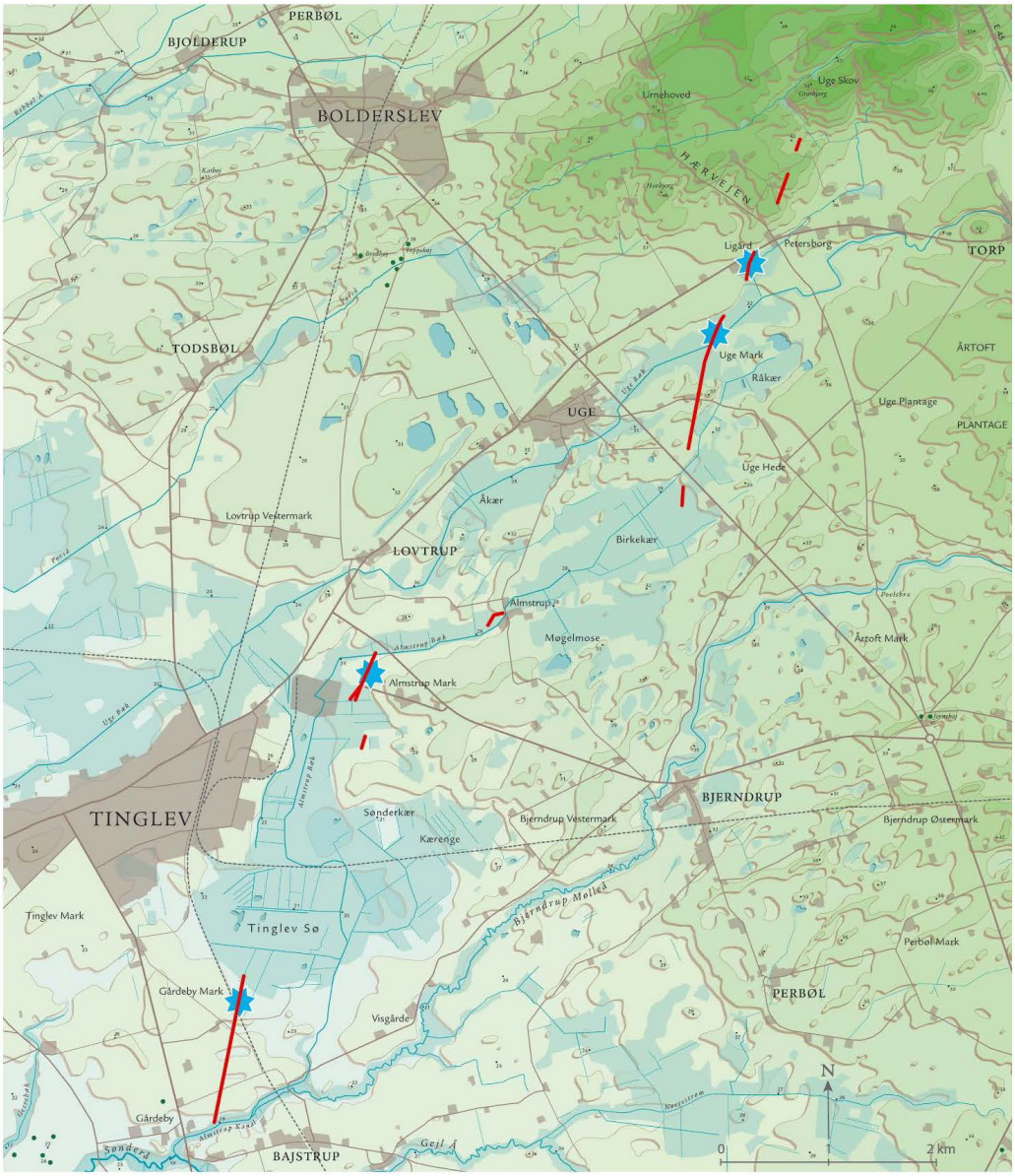

Figure 2: Map showing the *c.* 12km long extension of the Olger Dyke. The four sites (from south to north) of Gårdeby Mark, Olmersvej (Almstrup Mark), Uge Mark, and Ligård are marked with a blue star (Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev)

Presumably, the Olger Dyke originally extended further north-east to end at Åbenrå Fjord and Lillebælt but this final stretch cannot be confirmed on present data.

The Olger Dyke is first mentioned in Pontoppidan's Danish atlas from 1768 (Jørgensen 1928: 134). In 1819, Rev N. Outzen in Breklum mentioned parts of an earthwork south of Tinglev in the field of Gårdeby (la Cour 1929: 50). According to J.N. Schmidt, remains

Figure 3 (above): Palisade on the meadow south of Olmersvej looking towards the Tinglev Lake (Photograph: Hugo Matthiesen from 1928)

Figure 4 (below): Aerial photography of the ditch at Gårdeby Mark, viewed from the south (Unknown photographer)

of the bank could be seen on the field of Gårdeby in 1846 (Schmidt 1846–1848: 275). The earthwork, which was associated with a ditch, was then estimated as c. 940m long, c. 4.7m wide and c. 1.25m high. In addition, the bank is registered on a German ordnance map from 1878 (la Cour 1929: 50). Near Uge Skov, remains of a mound called *Skansen* are known, where faint traces of it are preserved in the hedges. J N. Schmidt also saw a bank and ditch in the slope of a marl pit near Petersborg at the Hærvejen (*Ox Road*): the traditional north–south route along the Jutland peninsula. The earthwork is no longer visible in the landscape, except for these faint, possible traces in a few hedges.

The Olger Dyke was first described in its entirety from Urnehoved to Gårdeby by H.P. Jørgensen in 1928 (Jørgensen 1928). Jørgensen became aware of the structure when oak posts were found during peat cutting in the Bredsmose bog south of Olmersvej (Figure 3). As a consequence of Jørgensen's mapping of the Olger Dyke, Hugo Matthiesen from the National Museum of Copenhagen conducted the first archaeological excavation of the structure near Olmersvej in 1928. This section was placed under state protection in 1932 and remains the only part of the Olger Dyke officially protected by law.

It was also H.P. Jørgensen who pointed out the course of the structure to Hans Neumann, the head of the Museum in Haderslev. In turn, a series of archaeological excavations were carried out. Vilhelm la Cour from the National Museum of Copenhagen conducted an excavation of the entrenchment called *Skansen*. According to Hans Neumann, *Skansen* consists of a low bank, flanked by two small ditches. In the period 1963–1972, the National Museum and Haderslev Museum carried out a number of small, systematic excavations of sections of the Olger Dyke (Neumann 1982). The aim of these small, annual excavations was to establish the course of the monument, its date and function. Neumann divided the Olger Dyke into six sections, sections numbered 1–6 from north-east to south-west. The sections were separated by natural barriers such as streams, meadows, bogs, or forests which – together with the Olger Dyke – created a barrier across the Hærvej (*Ox Road*).

The archaeological excavations of recent decades

Recent excavations conducted for Museum Sønderjylland directed by the author have been crucial for the understanding of the structure and dating of the Olger Dyke. Neumann's excavations during the 1960s and 1970s primarily consisted of only small sites and trenches dug by hand. By way of contrast, three of the recent excavations allowed the exposure of large areas by an excavator, which led to a better overview and interpretation of the Olger Dyke. The four excavations in question were Ligård (in 2003), Gårdeby Mark (in 2013) (Christensen 2006b; Christensen 2014), Olmersvej (in 2020) and Uge Mark (in 2022). The results of the last two investigations are published here for the first time. None of the recent excavations produced any artefacts.

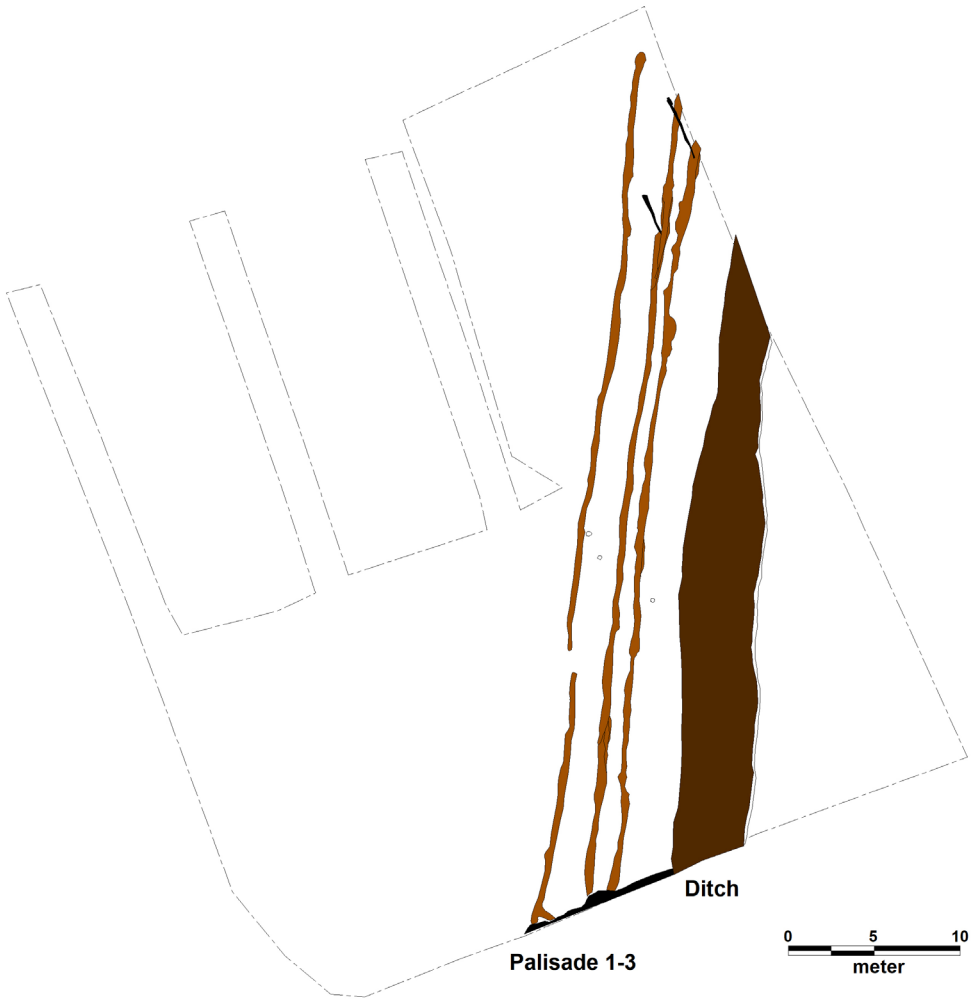

Figure 5: Excavation plan of the Olger Dyke at Gårdeby Mark, 2013. Ditch and three trenches

The excavation at Gårdeby Mark in 2013[1]

In 2013, an area of 1800m^2 was excavated in advance of the erection of a new byre (Christensen 2014). On this site, the Olger Dyke consisted of a ditch and three palisades (palisades 1–3), numbered from west to east. The ditch, which was 4–4.5m wide at the top and c. 1m deep and was visible as a cropmark on older aerial photographs (Figures 4–7), had slightly slanting sides and a flat base. The palisades ran west of and parallel to the ditch. The westernmost palisade had two openings: the largest was 1.25m wide, which was wide enough to allow access through the structure. The distance between Palisades 1 and 2 varied between 1.5m and 2.25m, whereas the distance between palisades

[1] Gårdeby Mark: Neumann 1982, sted 6, Tinglev, sb. 20. HAM 4252, sb. 122 (2013).

Figure 6 (above): Excavation photo of the Olger Dyke at Gårdeby Mark, 2013. Ditch and three trenches, viewed from the south (Photograph: Lisbeth Christensen)

Figure 7 (below): Section through the ditch of the Olger Dyke at Gårdeby Mark, 2013, viewed from the south (Photograph: Lisbeth Christensen)

2 and 3 varied between 0.5m and 1.25m. The distance between palisade 3 and the ditch measured c. 2.5m–3m. The width of the trenches in which the posts of the palisades had been placed varied between 0.35m and 0.75m. These trenches had been up to 0.5m deep. The palisade trenches were registered as three parallel features with varying distances between them. The palisades consisted of single rows of posts which apparently had a flat base. The post pipes showed that a combination of round, square, and cleft posts had been placed in the trenches. The posts themselves had not been preserved at Gårdeby Mark because this part of the structure was situated on agricultural land.

The excavation at Ligård in 2003[2]

In 2003, an area of 1800m^2 was excavated in advance of the erection of a new byre near the farm Ligård (Christensen 2006a–b) (Figures 8–9). The archaeological excavations showed that, as at Gårdeby Mark, the central part of the Olger Dyke consisted of a 1.1m deep flat-based ditch with a maximum width of 3.5m (Figure 10). Three palisades west of the ditch supplemented the structure.

The distance between palisade 3 and the ditch 4 measured only 1m, and the transition between these two features was not always clear. The distance between palisades 2 and 3 was only 0.75m, while there was 1.8m between palisades 1 and 2. The palisade trenches had a width of 0.5m and 1m, and a maximum depth of 0.4m. The westernmost palisade (palisade 1) consisted of a single row of posts, whereas palisades 2 and 3 consisted of double rows of posts. Palisade 3 was made primarily from round posts, whereas the posts of palisade 2 were predominantly square. The oak posts were generally poorly preserved. Distinct differences in terms of the diameter and the cross-section of the posts in the individual rows were observed.

Apart from the palisades 1–3, the presence of additional palisades east and west of the central part of the Olger Dyke were demonstrated at Ligård. Like the ditches to the west, these features are later than the central part of the Olger Dyke. The posts in the western, additional palisade trenches 6–7 appear to have been round, and were preserved up to 0.5m in height.

The palisade openings were placed at irregular intervals, creating somewhat of a labyrinth, but presumably allowed for passage through the Olger Dyke.

This large number of parallel trenches have only been documented at Ligård and the features to the east, the Ditches 5 and 9, probably represent the entrenchment known as *Skansen*. Neumann considered *Skansen* to be a younger, north-eastern extension of the Olger Dyke (Neumann 1982: 25ff). It was constructed as the course of the *Hærvej* moved further east. At Ligård, the *Skansen* monument consisted of the two easternmost trenches, though it was not possible to demonstrate the presence of an earthwork

[2] Ligård: Neumann 1982, sted 2, Uge sb. 37. HAM j.nr. 4230, sb. 87 (2003).

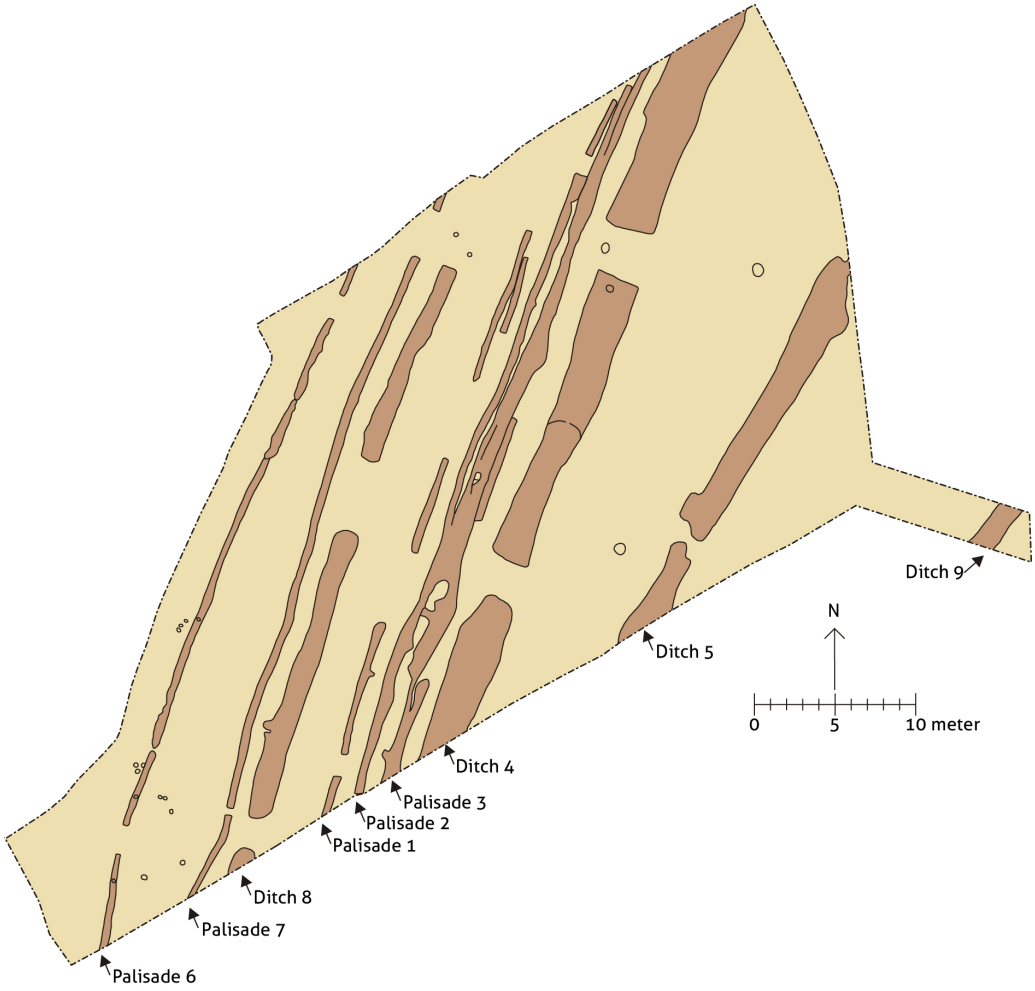

Figure 8: Excavation plan of the Olger Dyke at Ligård, 2003. The central part of the dyke consisting of palisades 1–3 and ditch 4 (Hans Peter Jørgensen, Museum Sønderjylland, Arkæologi Haderslev)

between the trenches here as it had been further north. The variation in profile and depth of the different trenches suggests that the palisades represent different phases of the structure, i.e., repairs or reinforcements.

No stratigraphic observations have been made which would allow for the establishment of a sequence for the construction of the palisades and ditches. It may simply be stated that there are at least three different main phases of construction of the Olger Dyke at Ligård; an observation which is provided by dendrochronological dates (see below).

Figure 9 (above): The excavated area at Ligård, 2003, viewed from the west (Photograph: Lisbeth Christensen)

Figure 10 (below): Section of the ditch at Ligård, viewed from the south (Photograph: Lisbeth Christensen)

The excavation at Olmersvej (Almstrup Mark) in 2020[3]

The excavation at Olmersvej in 2020 was carried out on behalf of Tinglev Forum, a voluntary umbrella organisation consisting of societies and institutions of the town of Tinglev (Figure 11). Tinglev Forum wanted to rebuild 10–12m of the original Olger Dyke across Olmersvej (former Bjerndrupvej) just east of Tinglev.

The purpose of the reconstruction and associated information was to inform tourists and local people interested in their heritage regarding this 2000-year-old prehistoric monument. The project was carried out in connection with the centenary of Schleswig's Reunification in 2020[4] on the exact place where the structure had originally been placed (Figure 12). On both sides of the old Bjerndrupvej was a 20m-wide protective zone which from 1932 on was covered by Danish heritage law to prevent further damage to the monument. The area of the road and its embankment, covering the Olger Dyke, was however not under protection and it was, therefore, possible to reconstruct parts of the Olger Dyke here. The excavated area was c. 350m^2. It lies only 50m east of the Almstrup stream and thus occasionally it floods. The Olger Dyke had been preserved by a 0.3m–0.35m-thick layer of peat and covered by the 1.5m-thick embankment of the modern road Bjerndrupvej.

At Olmersvej, the structure consisted of two parallel palisade trenches (2–3) running north-north-east/south-south-west and a ditch east of the trenches (Figure 13). The distance between palisades 2 and 3 varies between 0.6m and 1.2m. The distance between palisade 3 and the ditch varies 1.1–1.4 m. The palisade trenches had a width of 0.5–0.75m, and a depth of 0.7–0.75m and they contained preserved timber uprights in places. Both palisades consisted of a single row of closely placed posts. A wedge had been pushed underneath one of the posts to raise it slightly.

Another trench which was dug into and near the one side of the ditch may also belong to the structure. In section, the ditch, which was c. 0.9–1 m deep, was evenly shaped with slightly rounded or sloping sides and a flat base, and was 2.8–3.9 m wide, with the narrowest part at the southern end. The northern half comprised two phases, while only one phase was recorded in the southern half.

During a former excavation at Olmersvej (Almstrup Mark) in 1972, three wooden spades were found stuck into the palisade trench. The spades are 0.05–0.10m thick laths with a sharp edge in the one end and a step cut into one side. The spades were probably used to dig the palisade trenches and the ditch (Figure 14).

North of the Olmersvej, clear traces of a c. 150m-long ditch were clearly visible in the landscape. This is the only section of the Olger Dyke, where the ditch is still visible

[3] Olmersvej. Neumann 1982, sted 5, Uge sb. 46. HAM j.nr. 2959 (2020).

[4] Denmark's defeat by Prussia and Austria in the second Schleswig war in 1864 meant that the Danish State lost North Schleswig (Southern Jutland) to the Prussian State. The reunification of Southern Jutland with Denmark took place in 1920 following the German defeat of the First World War.

Figure 11 (above): Excavation photo of the Olger Dyke at Olmersvej, 2020 (Ditch and two trenches, viewed from the east) (Photograph: Lisbeth Christensen)

Figure 12 (below): Reconstruction of the Olger Dyke at Olmersvej 2021 (palisade, ditch and bank, viewed from the north). The photo was taken during the phase of reconstruction (Photograph: Lisbeth Christensen)

Figure 13 (above): Excavation plan of the Olger Dyke at Olmersvej, 2020

Figure 14 (left): Wooden spade from the 1972 excavation, south of Olmersvej (Almstrup Mark) (Photograph: Museum Sønderjylland)

(Figure 15). All that remains of the earthwork has disappeared. The fill of the ditch at Olmersvej as well as at Gårdeby Mark and Ligård indicates that the ditch had been water-bearing.

The posts which survived best from Olmersvej came from palisade 3, closest to the ditch; indeed they represent some of the best-preserved posts from the Olger Dyke found so far. The largest of the posts had a diameter of c. 0.36cm and the oak posts were generally preserved at a length of 0.10–0.43m. The longest post was found at the bottom of the ditch and measured 2.6m. For the first

Figure 15 (above): The ditch north of Olmersvej, 1928 (Photograph by Hugo Matthiesen, after Jørgensen 1951)

Figure 16 (below): Bevelled oak post from the excavation at Olmersvej (Photograph: Lisbeth Christensen)

time in the long research history of the Olger Dyke, it is now possible to document the original length of the posts.

Many of the posts had visible signs of having been trimmed, with carefully bevelled edges at c. 45° and typically a couple of centimetres wide (Figure 16). The homogeneity of the bevelling suggests that trimming was undertaken after cutting and dressing of the posts. The majority of the posts had a straight base, while three were slightly pointed.

Four of the posts had been cut at a fork, i.e. at the bifurcation of the trunk of a tree. Presumably, these posts were wider and heavier, which may have been an advantage in terms of stability.

Traces from cuts and bevelling must relate to the construction of the palisades. It is uncertain whether the even base had a specific function in relation to the construction. The same is true of the bevelling, but it is feasible that the posts were easier to transport and handle when the sharp edges had been trimmed.

The excavation at Uge Mark in 2022[5]

Excavation in 2022 of an area measuring 25m^2 took place near the Uge stream. The work was in advance of earthworks related to cable laying which involved the cutting of a 5.5m-wide trench. This allowed the Olger Dyke to be uncovered up to a width of 2.5m (Figures 17–18). The Olger Dyke was situated in a meadow bordering agricultural lands to the north and though there were no visible traces above ground, a palisade was found just below the surface of the meadow.

The palisade, of which 8m was recovered, survived to a maximum depth of 0.7m. It was situated only a few metres north of the present Uge stream and the area flooded regularly. The row of posts had, therefore, been covered and preserved by a 0.2m thick layer of peat and c. 0.35cm of plough soil. The structure nearest to the stream consisted of a slightly curved and irregular row of posts aligned northeast/southwest. The northern half of the structure consisted of a single row of posts. The southern half consisted of a 30cm–40cm wide trench in which up to two rows of posts (formed from replacements and renewals) had been slightly off-set from one another.

The posts were poorly preserved here since modern draining had dried out the matrix. Furthermore, cultivation had reduced the level of the ground surface so that the top of some of the posts now reached the surface.

Both round and square posts with an even base had been used. The piled posts had been trimmed to form a point, and had been rammed into the soft, boggy subsoil. The piled posts were exclusively round posts, and the tapered posts showed signs of cutting and trimming. These posts varied in length from 0.44m to 1.4m and had a maximum diameter of 0.16–0.22m, with the lower c. 0.4–0.6 m having been tapered (Figure 19). Two round posts, which had fallen over and continued beyond limits of the trench, measured 3.42–3.57m, of which the lower 0.5–0.6m had been tapered. This indicates that the original height of the palisade was originally c. 3 m. At this section, the Olger Dyke consisted of a single palisade without a ditch because the structure was placed in a once flooded meadow, representing a natural obstacle.

[5] Uge Mark. Neumann 1982, sted 3, Uge sb. 47. HAM j.nr. 6426 (2022).

Figure 17: Excavation photo of the Olger Dyke at Uge Mark, 2022, (palisade, viewed from the north (Photograph: Anders Hartvig)

Dendrochronology

Since the 1960s, samples of wood from different sections of the Olger Dyke have been submitted for dendrochronological analyses. It used to be believed that the Olger Dyke was erected in the beginning of the third century AD (see Neumann 1982: 136). However, this date has been revised thanks to the new excavations.

Until last year, there was only a single early dendrochronological date of AD 31 from the excavation of Olmersvej (Almstrup Mark) in 1972. Previous dendrochronological analyses have attempted to examine the development of the palisades (Christensen 2006b; Christensen 2014) but it was difficult to assign them to specific phases since

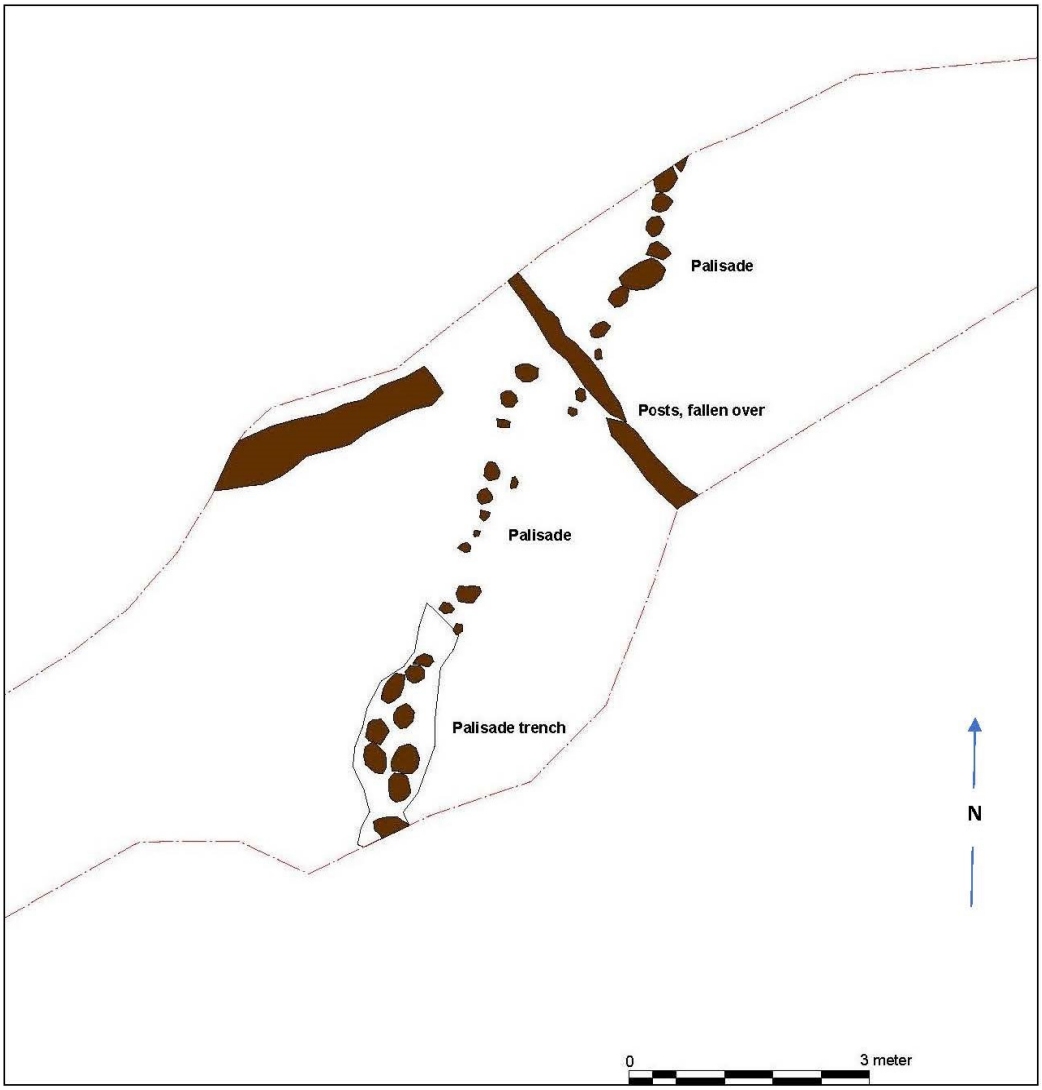

Figure 18: Excavation plan of the Olger Dyke at Uge Mark, 2022, (palisade, viewed from the south)

they apparently consisted of timber from different phases and palisades, probably reflecting that many posts were reuses in the construction of new palisades or in the repair of existing ones. The new dendrochronological dates from the Olger Dyke have added new and more detailed information about the dating and structure of this linear earthwork.

The dating of the posts is now based on a master sequence of tree ring data from oak trees in Denmark, which has been created and refined during the last 20 years by the dendrochronologists Niels Bonde from the National Museum of Denmark and Kjeld Christensen from the former Wormianum laboratory, giving the ability for more precise dendrochronological aging.

Figure 19: Tapered oak posts from the palisade at Uge Mark, 2022 (Photograph: Lisbeth Christensen)

Due to the fact that the dendrochronological dates from different Danish laboratories could be merged, together with new dating methods and recent dendrochronological samples from Ligård, Olmersvej and Uge Mark, it has been possible to obtain more refined chronological sequences and new dates for the Olger Dyke.

The dendrochronological samples were selected according to preservation, so that the best-preserved posts with most preserved annual growth rings were selected for dating. The degree of preservation of the remainder was either too poor to allow for a dendrochronological date, or the samples were severely damaged by the activities of the cockchafer beetle. The most recent dendrochronological dates come from Ligård in 2003, at Olmersvej in 2020 and at Uge Mark in 2022.

The 20 dated posts from the Ligård excavation in 2003 were dated by Bonde. None of the samples had preserved sapwood and the youngest growth rings were formed shortly before the turn of the millennium and until AD 53. The dendrochronological dates show two clusters, one around AD 60–70 and another around AD 80–90 (Figure 20).

A total of 25 samples were selected for dendrochronological dating from Olmersvej, of which fourteen were dated, while a total of ten samples were selected for dendrochronological dating from Uge Mark, of which five were dated (Ogdal 2021) (Figure 21).

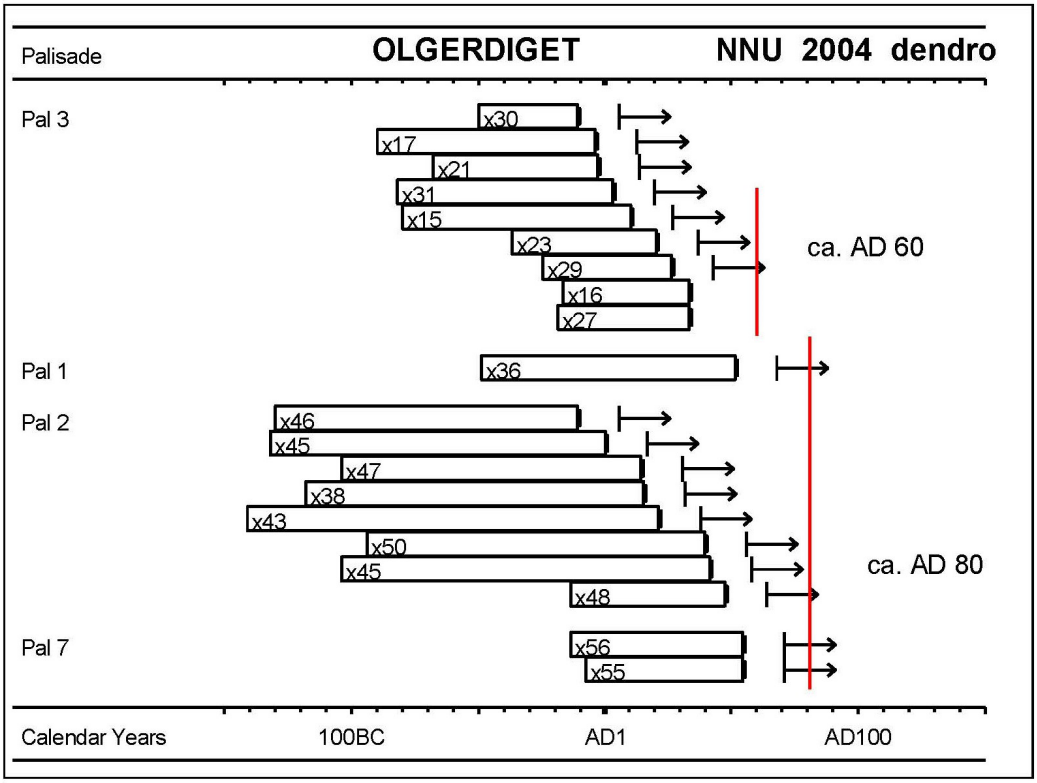

Figure 20: Results of the dendrochronological analyses of the sample from Ligård, 2003 (Photograph: Niels Bonde)

These dates from Uge Mark show that the Olger Dyke was erected around AD 25 (Ogdal 2022) (Figure 22). The results from 2020 indicate that there may have been a later phase, for example after AD 127. It is assumed, however, that the samples from trees felled after AD 89/90 represent repairs since there are only few dates from this phase.

The recognition of and calibration of cockchafer damaged samples is relatively novel. Within a period of four years the cockchafer goes through a cycle from egg to larvae and adult beetle. The larvae live for four years in the earth before they develop into adult beetles. They appear from April until June, lay eggs, and the cycle begins again. The larvae feed on roots, whereas the beetles prefer leaves from deciduous trees, preferably oak. In this way, the occurrence of the cockchafer influences the growth conditions of trees. Consequently, the cockchafer also has an impact on the dendrochronological method since the main curve is based on oak. The cockchafer-affected curves show minima every fourth year and so-called cockchafer years have been defined (K. Christensen 1983: 163ff.). These four-year minimums are causing disruption in the dendrochronological curves. Until now, these curves were considered undatable. However, it has now been possible to take into account the cockchafer years in the analysis of some of the samples from different sections of the Olger Dyke.

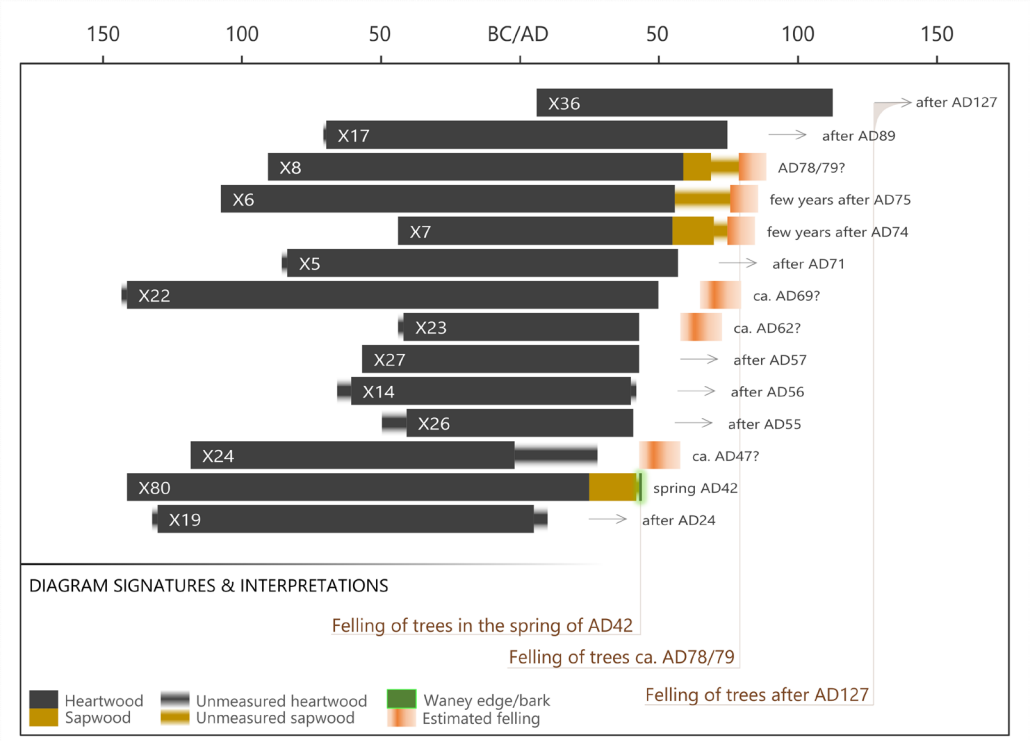

Figure 21: Results of the dendrochronological analyses of the samples from Olmersvej, 2021 (Photograph: Jonas Ogdal)

The method of identifying and calibrating for the effect of cockchafer beetles on dendrochronological samples was developed by Kjeld Christensen. Until today this dendrochronological method is only known by him and his colleague Inger Laigaard, while other dendrochronologists use other methods and so are unable to date the cockchafer-affected posts. It is not within the scope of this paper to explain the method of Christensen and how his method differs from the recent, dendrochronological methods of Jonas Ogdal from Moesgård Museum in Århus. However, when comparing the dating results of the same posts by Ogdal and Christensen, the results are found to be almost identical. Until 2019, a total of 57 posts from the Olger Dyke had been dated by Christensen, whereas it was only possible for Ogdal to date 34 of these posts by his method in 2020. The posts from Olmersvej 2020 and Uge Mark 2022 have until now only be dated by Ogdal, but Christensen is at present trying to date more of the posts from these two recent excavations using his method.

The new merged and revised dates of previously analysed samples from across the whole Olger Dyke system as well as the most recent dates from Olmersvej suggest that parts of the Olger Dyke were erected as early as the beginning of the first century AD (Ogdal 2021) and comprise at least three main phases of tree felling for construction:

Figure 22: Results of the dendrochronological analyses of the samples from Uge Mark, 2022 (Photograph: Jonas Ogdal)

Phase 1: Spring AD 42

Phase 2: c. AD 78/79

Phase 3: c. AD 89/90

The implication is that the Olger Dyke was in use until AD 125–130. After this date it is no longer maintained, and one must assume that it went out of use. It is the results of the various dendrochronology dates that form the focus of discussion later on in the article.

Construction – palisades and ditch

Excavations and dendrochronological analyses have shown that the several kilometre-long Olger Dyke comprises a unitary monument, constructed in the same way, and most likely erected at the same time (Figure 23). It is an impressive monument which was established c. AD 20–31 and remained in use for more than 100 years before it was abandoned.

The excavations at Ligård in 2003 showed that the Olger Dyke here was a complex structure with up to five rows of palisades (Christensen 2006 b: 3ff) and at least three phases of construction, with palisades 1–2 being partly coexistent and palisades 1–3 representing the oldest and central part of the structure.

As at Ligård, the excavations at Gårdeby Mark demonstrated openings in the palisades. Presumably, it was meant to allow a crossing of the defensive structure here and one may assume that it was also possible to cross the Olger Dyke at other points.

Figure 23: Reconstruction of the Olger Dyke at Gårdeby Mark (Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev)

Palisades have only been recorded on 7.5km of the total extension and vary in depth up to 0.70m. The results of the recent excavations have confirmed that the central part of the Olger Dyke consisted of a ditch and three palisades (1–3) on arable land, with the palisades oriented towards the north. Near naturally wet areas, only a single palisade has been recorded, the posts being either placed in a trench or rammed into the ground. Indeed, at Olmersvej, while it appears that palisade 2 partly replaced palisade 3, palisade 1 seems to be missing. Further south near Tinglev Lake, Neumann found only a single palisade without a ditch near the lake, as at the site of Uge Mark.

Palisade 1 generally consisted of just one single row of oak posts, while the palisades 2 and 3 could consist of double rows. There are also examples of sections in which the posts in the double rows are placed in a staggered manner suggesting that this may be intentional. Both round as well as square posts have been used, possibly an indication of repairs or fortification of the palisade.

The oldest dendrochronological dates from the Olger Dyke derive from round posts from palisade 3 closest to the ditch. The westernmost of the three palisades, palisade 1, is the youngest. Refortification, with the addition of palisade 1, has only been carried out on parts of the structure and only at Ligård were further palisades added to the structure (Christensen 2006: 3ff.).

There were marked differences regarding the diameter and cross-section of the individual rows of posts. The varying cross-sections and depths of the trenches indicate that the palisades represent different phases of the structure, i.e., repairs and/or refortifications.

Most of the posts in the trenches had a flat base and the posts were preserved at a length of up to 0.50m, below the present surface. The posts which had been rammed into the ground outside the trenches were all round posts which had been tapered at one end.

The traces of the dyke itself have been ploughed out over the years. Meanwhile, the water-filled ditch, which was approximately 3–5m wide and up to 1.1m deep, with slanting sides and a flat base has only been found on the more elevated stretches of the structure. Running along only some 2km of its total length, it is visible today along a 150m stretch at Olmersvej, where it measures c. 4m wide and 1.70m deep (though it can be traced further in aerial photographs). Running east of and parallel to the palisades, it had approximately the same shape and depth in all recorded sections.

It appears that ditch, bank and palisade were established at the same time, with the oldest palisade (palisade 3) being contemporary with the ditch, as indicated by the post found lying in the ditch excavated at Olmersvej. The ditch and the palisades never cut each other, but the ditch is not always exactly parallel to the palisades, and we must assume that construction of the structure depended on the conditions of the ground and local routes of transportation.

The nature of other linear earthworks in Jutland

The Olger Dyke is related to the Jutlandic linear earthworks and to the so-called Danish hole or pit belts. Pit belts consist of 3–4m-wide belts of five to nine rows of closely spaced pits, which at the time of use were left open. The pit-holes had a width of 0.2–0.4m and the open pit-holes had depths of c. 0.3–0.4 m immediately after construction (Olesen 2002: 23 ff.). However, the pits do not appear to have held timber posts.

In his *Gallic Wars*, Caesar describes, at the siege of Alesia in northern France in AD 52, a defensive system with elements similar to the pit belts of western Jutland. Close to Alesia there are barriers like 'Caesar's Lilies'; ditches, wall, and a palisade which was supposed to prevent the inhabitants of leaving the town. This fortification is surrounded by a 21km-long outer line of defence oriented towards attacks from outside (Fischer 2014: 26).

Most of the forty-one known Danish pit belts occur in Mid and West Jutland. A few of these have been enclosing pit belts, found in connection with fortified settlements such as the sites of Grøntoft, Lystbækgåd, and Brændgårds Hede in Ringkøbing Amt. The majority of the pit belts are linear, e.g. Risum Østergård and Tvis Møllevej in Ringkøbing Amt (Steen 2005: 5 ff.; Steen 2009: 15 ff.), and at Risum Østergård, which runs c. 2.3km north-east/south-west and also has two narrow passages through it. There are, however, no indications of renewal or maintenance of the pit belts. There is only one known example of a pit belt in connection with linear earthworks, i.e. Rammediget (the Ramme Dyke) near Ramme also in Ringkøbing Amt, which has not been dated (Olesen

2003: 23 ff.). The bank and ditch are most likely contemporary with the pit belts and may therefore be dated to the first century AD (Eriksen 2018: 327 ff.).

The function of the pit belts is unclear, but it seems they represent a defensive structure that controlled access and defined territorial borders. However, other interpretations are possible, such as cattle grids. They may have even formed part of a ritual landscape or served as symbolic markers in the landscape (Eriksen 2018: 434–435). The pit belts should probably be understood as a predecessor of the dykes. The dated pit belts belong to the pre-Roman Iron Age, c. 500–200 BC (Eriksen 2018: 429) and so are of earlier origin than the Olger Dyke.

Most of the other Jutlandic linear earthworks are undated. Hardly any of them have been excavated and they only consist of either just a short linear bank or of a ditch and earthworks. The Olger Dyke can best be compared to two other Jutish dyke systems with palisade trenches called *Trældiget* and *Æ Vold*. Trældiget is a linear earthwork situated west of Kolding and about 85km north-west of the Olger Dyke. The structure runs north–south for 12km and consists of a series of discontinuous linear earthworks interrupted by boggy areas and meadows just like the Olger Dyke. Trældiget consists of two phases, an older phase with a single palisade trench and a ditch and a younger phase likewise with a single palisade trench, a ditch and traces of earthwork surviving in a present-day hedge. The two undated phases have differing courses and dimensions, but both palisade trenches are facing east during the two phases, with no apparent entrance gaps. The earthwork crosses the main road between Kolding and Ribe and runs alongside parish boundaries to the south (Hvass 1984; Knudsen and Rindel 1994). Trældiget is dated to the Early Roman Iron Age due to its similarities to the Olger Dyke, but they may not be contemporary (Hvass 1984: 100).

Æ Vold was at least 2km long, running east–west, facing north and was situated between two bog areas. Æ Vold is situated only 15km north of the Olger Dyke, where it crosses the *Ox Road* and is followed by a medieval parish boundary. The linear earthwork only consists of one phase with a ditch, an earthwork and a single palisade with no apparent entrance gaps (Andersen 1990). Here only a few fragments of the timber palisade were conserved of which a post has been dated by dendrochronology to AD 105.

Altogether, the structure of the Olger Dyke is quite unique when compared to other linear earthworks in Denmark, with its multiple, in part, well preserved timber palisades and entrance gaps and only Æ Vold is of a similar date as the Olger Dyke.

The Roman border along the Rhine, the *Limes*, used to be understood as a model for the construction of the Olger Dyke. However, the phase of the *Limes* resembling the Olger Dyke, that is the phase with palisade, ditch and earthwork, dating from about AD 200, is younger than the Olger Dyke. The Romans made use of constructional elements such as wall, ditch, and palisade in connection with their military structures dating to

periods before and after the turn of the millennium, such as that at the siege of Alesia. In addition, a Roman military camp/naval base with traces of a ditch and dating to just after the turn of the millennium may have been situated as far north as near Bentumersiel at the River Ems in north-western Germany (Brandt 1974: 73ff.; Stapel 2011: 293ff.). Such structures may have served as inspiration for the dyke in southern Jutland.

Interpretation

The group of linear earthwork monuments to which the Olger Dyke belongs is found all over Denmark but occurs most frequently in Jutland. The linear earthworks typically occur in combination with natural barriers such as bogs or streams which obstruct access to a given area. These monuments may have had some of the same functions as their predecessors: the hole belts.

Over the years, different theories have been put forward to explain the purpose of the earthworks and the roles they played in late prehistoric settlement patterns and societies. The Olger Dyke has been seen as a roadblock for the *Ox Road* and as a customs border as well as a border between the Jutes and the Angles, built by the Angles (Neumann 1982: 48ff). Most researchers have focused on the interpretation that the dykes functioned as a landscape boundary and were a frontier of a sort between territories and tribes (Hvass 1984: 103; Knudsen and Rindel 1994: 28; Ethelberg 2011).

The southern part of the Olger Dyke begins, as mentioned above, near the stream Bjerndrup Møllå, continues to the boggy areas south of Tinglev Lake, from where it runs further north and is interrupted by meadows forming natural barriers in the landscape and with specified crossings.

The recent excavations of sections of the Olger Dyke indicate that it had been repaired and reinforced in connection with the development of roads or fords in order to control these passageways. It served as an additional reinforcement or blocking of the *Ox Road* (*Hærvejen*), one of the most important Iron Age road systems in Jutland, since it connected northern Jutland with northern Germany.

A number of prehistoric and medieval roads are known from the area near Urnehoved, Ligård, and Uge. The medieval course of the *Hærvej* runs across the Urnehoved bank. The older course, also known as the *Ox Road*, went from Poulskro via Uge, Porsbøl and Porså to Bolderslev, and crossed the Olger Dyke near Ligård. Although the Roman Iron Age road system was different, old maps give an impression of the routes and areas which were passable in the Iron Age. According to the local topography, Ligård and Almstrup seem to have been located near ancient roads connecting the settlements of the area. There must have been a road at Almstrup and a ford at Almstrup Bæk. At Ligård, near the ancient road, the Olger Dyke consists of strongly built palisades, reinforced by additional ditches and palisades lines. Several interruptions of the ditches and rows

of palisades indicate the presence of a passage through the structure. So far, however, it has not been possible to demonstrate the presence of a roadway through the Olger Dyke, on which prehistoric wagons could pass.

The fact that some of the linear earthworks follow parish borders could indicate the demarcation of a territory. The Danish parish boundaries go back to the eleventh and twelfth centuries and the parishes represent a piece of land with a church, which acts as the religious centre of a parish. It seems as if some of these parish borders have an older origin dating back to the Iron Age and demarcate a territorial boundary between two territories or tribes. Otherwise it may be also the parish boundary that follows the ancient demaracations. Some of the parish boundaries have stood ever since, others have changed, which is probably the case concerning the Olger Dyke, when looking at the current parish borders.

The geographic position of the Olger Dyke seems to show the presence of a kind of buffer zone around the linear earthwork. Until now only two Iron Age settlements have been found in the vicinity of the dyke, the settlements of Skovsminde and Johannesminde (Andersen 2000; Ethelberg 2003: 186; Ethelberg 2017). The settlement at Skovsminde is situated about 250m west of *Skansen*, the younger north-eastern extension of the Olger Dyke. Skovsminde is a settlement with four settlement phases from the late pre-Roman to the Early Roman Iron Age, that is from around the turn of the millennium and the first century AD. Johannesminde is situated 1km west of Skovsminde and about 800m west of Ligård. This latter settlement has two settlement phases dated to second century AD (Ethelberg 2003: 186) (Figure 24).

Ethelberg interprets the Olger Dyke as a territorial boundary between two Germanic tribes primarily on the basis of the distribution of settlements defined by two different house types dated to the late pre- Roman and Early Roman period. According to the most recent interpretation, the Olger Dyke was established by the Angles in the south against the Varini to the north (Ethelberg 2020: 159 ff) (Figure 25). These Germanic tribal names are mentioned by the Roman historian Tacitus in his *Germania* from 98 (Tacitus 98: 40.1).

The author of this article, however, does not support this theory. The two house types appear side-by-side at the same settlements. The differences in house types are instead considered to be an expression of a chronological development of house types during the first and second centuries AD; from houses with only six sets of roof bearing timber posts (Ethelberg house type 1: Varinian) to larger houses with more sets of roof bearing posts (Ethelberg house type 2: Anglian). There is no archaeological evidence to suggest that the people on either side of the Olger Dyke were culturally separate from each other. One cannot detect any differences in types of household vessels, for example, which are supposed to be produced locally at the Iron Age settlements within the region. Nonetheless, the Olger Dyke may have functioned as a kind of boundary or territorial marker between two unnamed local tribes, and perhaps also is to be seen as part of a larger defensive structure.

Figure 24: Settlements, large urn cemeteries, 'princely graves', weapon sacrifices, linear earthworks and ring fortresses. Jutland from around the turn of the millennium until AD 200 (Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev)

The palisades of the Olger Dyke consisted of at least 90,000 oak posts. The construction, maintenance and manning of the monument would have demanded significant efforts regarding material and people. Large defensive structures such as the Olger Dyke suggest the presence of some sort of chieftain who organised its construction and perhaps coordinated its maintenance. It is assumed that individual settlements along the Olger Dyke maintained smaller sections of the structure. Presumably, the Olger Dyke was not permanently manned, only certain sections and under certain circumstances such as border disputes or periods of unrest.

Specific events which could have led to the construction of the earthwork monuments are not known, but Roman and Greek authors refer to struggles of power and migrations in the countries of the north (Seneca 43). This work by Seneca was written around AD 40–45.

The Olger Dyke is contemporary with the earliest sacrifices of warrior equipment taking place in the bogs of Vimose (Vimose '0'), around the turn of the millennium, and Ejsbøl (Ejsbøl I) dated to the period 39–1 BC (Jensen 2008: 137 ff; Jørgensen and Andersen 2014: 192 ff.). The great sacrifices of war gear and weapon burials dating to the end of the pre-Roman Iron Age and Early Roman Iron Age indicate periods of unrest with risks of attacks from neighbouring tribes from the east and the south.

The Olger Dyke is also contemporary with the first sacrifices of objects in the bog of Thorsbjerg, and with the construction of the ring fortresses Trælbanken near Højer and Archsumburg on Sild in the Wadden Sea. The ring-fortresses controlled access to the Vidå river system, and with the Olger Dyke, may be understood as part of a larger defensive system which cut off the southern part of Jutland. The three structures were erected in the first century AD and were in use until the beginning of the second century AD (Harck 1989: 51 ff; Ethelberg 2011: 41).

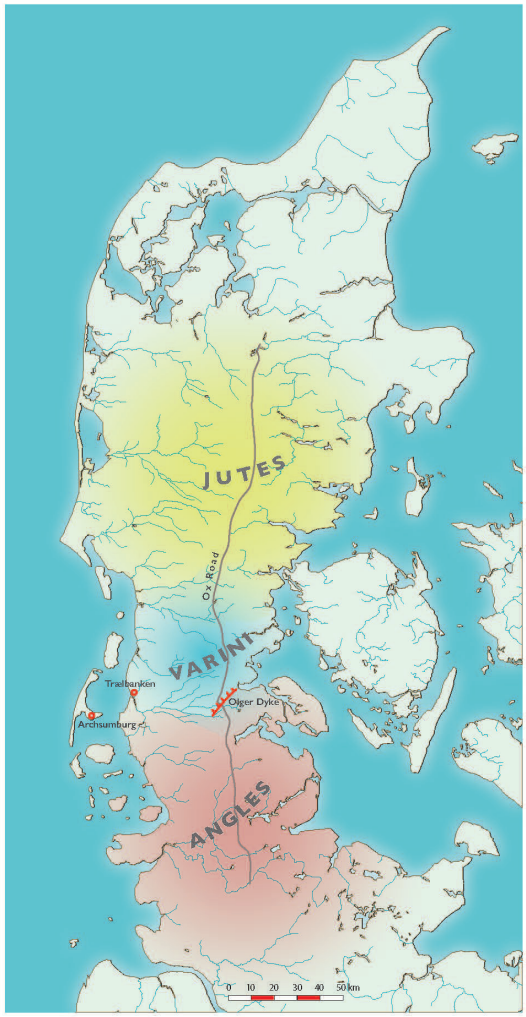

Figure 25: Archsumburg, Trælbanken, the Vidå river system, the Olger Dyke and the *Ox Road* shortly after the turn of the millennium (Jørgen Andersen, Museum Sønderjylland, Arkæologi Haderslev)

The Olger Dyke is succeeded by 'Æ Vold' which is located c. 15km to the north and has been dated by dendrochronology to AD 105 (Andersen 1990: 7ff.; Andersen 2023). According to Ethelberg, the defensive structures were constructed by the Angles and are oriented towards the north and, as such, moves c. 15 km further north towards Genner Bugt as the Angles expand their territory (Ethelberg 2011).

These old linear earthworks represent the predecessors to Dannevirke which formed a barrier across Jutland and marked a southern border (Tummuscheit and Witte 2019). A border separating Denmark with the rest of continental Europe. The Olger Dyke may also have marked the border between two tribal areas and controlled traffic moving between the north and the south through Jutland. In this way, it may have acted to control traffic, as a defensive structure, as a border or demarcation of a territory, or had several simultaneous, non-mutually exclusive functions at the same time.

Altogether, the Olger Dyke fits into a wider discussion of frontier archaeology and dyke studies, focusing on the history of prehistoric frontiers or borders inland as well as abroad. The results should be useful for future discussion and comparison of other similar linear earthworks, especially in respect to the purpose of these dykes and the role they played in delineating boundaries between different territories and different tribal societies during the Early Roman Iron Age.

Although the investigations of the impressive prehistoric monument were initiated almost one hundred years ago, it remains enigmatic. The recent excavations have certainly added valuable and exciting new information to the picture, but at the same time they have raised new questions which only future examinations will be able to answer. This results from the fact that during the last twenty years archaeologists have only had the chance to investigate the Olger Dyke in connection with rescue excavations: there was no flexibility to choose where to dig and on what scale. Hence, while these excavations have yielded new results, there is the potential for a research project to significantly enhance our knowledge about the monument.

One potential research project would be to instigate a series of east–west trial trenches across the Olger Dyke north and south of Ligård in order to: (i) detect where the many trenches at Ligård start and end to the north and south; (ii) locate the northern extension of the Olger Dyke; (iii) obtain more dendrochronological dates from the latest, westernmost trenches at Ligård.

More broadly, acquiring further dendrochronological dates from the latest phases of restoration (and thus use) of the Olger Dyke is required. These dates would help pinpoint exactly when the structure went out of use. I would also in general like to know more about the northern extension of the Olger Dyke called 'Skansen'.

In short, these new results set the stage for future work. Such investigations might explore the extent of the Olger Dyke to the north, when exactly it was repaired and went out of use, and also help to identify whether there were actual gateways through the Olger Dyke in connection with the *Ox Road*.

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The Current State of Research on Early Medieval Earthworks in East Central and Southeastern Europe

Florin Curta

Much has changed in the last forty years in the study of the early medieval earthworks of East Central and Eastern Europe. While the exact chronology and cultural attribution of the Csörsz Dykes in Hungary or the Bessarabian Dykes in Moldova and Ukraine remains a matter of debate, significant progress is clear in other cases, particularly the West Bulgarian Dykes, as well as the Large Earth Dyke in Dobrudja. The use of radiocarbon dating, as well as stratigraphical observations suggest that, in both cases, the key period for the building and use of those earthworks was the ninth century. The article surveys the main problems of interpretation raised by the recent studies of dykes in the region.

Keywords: radiocarbon dating, early medieval settlements, social organisation, frontiers, Eastern Europe

The research on linear earthworks in East Central and Eastern Europe took a major turn in the 1980s on three different fronts. First, the Bulgarian archaeologist Rasho Rashev (1943–2008) published his first book, a monograph on the Bulgar embankments in the Lower Danube region (Rashev 1982). One year later, three archaeologists from the Hungarian National Museum – Éva Garam (b. 1939), Pál Patay (1914–2020), and Sándor Soproni (1926–1995) – published the second, and to this day, the most authoritative monograph on the so-called Csörsz Dykes (Garam *et al.* 1983).[1] While Rashev, building on ideas of earlier Bulgarian historians, envisaged a system of fortifications (both dykes and strongholds) for the defense of early medieval Bulgaria, the Hungarian archaeologists dated the earthworks in eastern Hungary and western Romania to Late Antiquity (fourth to sixth centuries) and attributed them to the Romans (for Bulgaria, see Rashev 2005: 52–53; for Roman linear fortifications, see Napoli 1997). However, at about the same time, the German archaeologist Uwe Fiedler (b. 1957) advanced the idea that all earthworks in East Central and Southeastern Europe had been built in the early Middle Ages (seventh to ninth centuries). He linked the dykes in Hungary and western Romania to the Avars, and those of Bulgaria, northern Serbia, southern and southeastern Romania, Moldova, and southern Ukraine to the Bulgars (Fiedler 1986). All three studies have fundamentally altered the way in which earthworks in East Central and Southeastern Europe are interpreted (Figure 1). During the last 40 years, the research has amplified, but also considerably modified the conclusions of the

[1] The Csörsz Dykes were first studied by Vilmos Balás (Balás 1961 and 1963). The name derives from that of a legendary king, who allegedly built the dykes to win the hand of his future wife. However, the word derives from the Slav(on)ic word for 'devilish', an indication that, like many other ramparts in the region, the construction was attributed to the powers of the devil.

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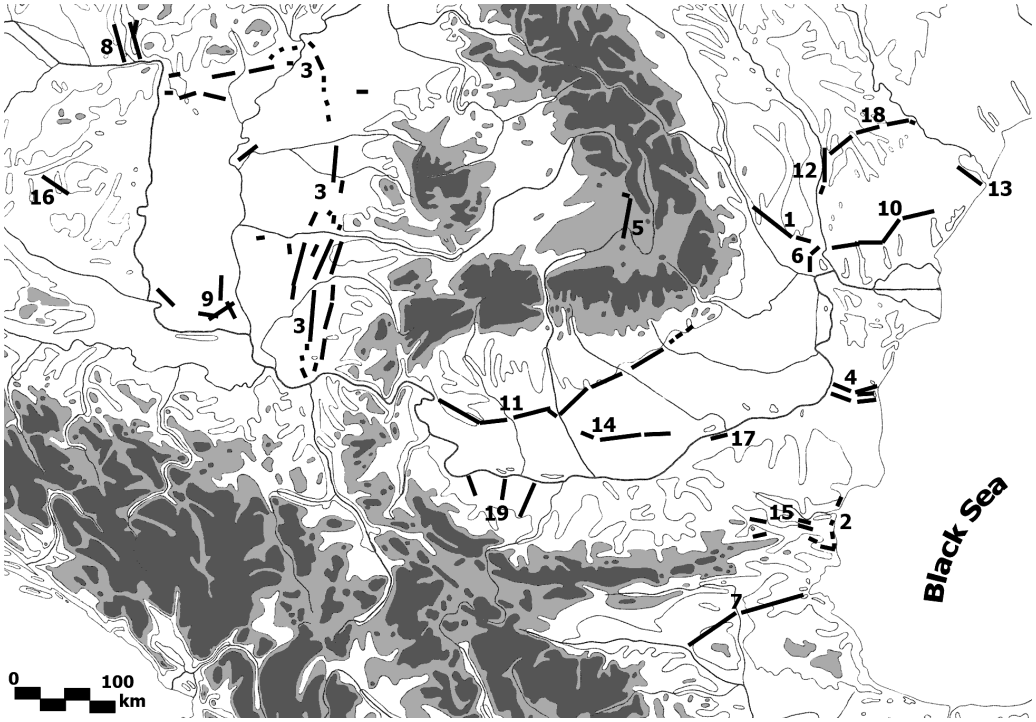

Figure 1: Distribution of earthworks dated to the early Middle Ages in East Central and Southeastern Europe: 1 – Athanaric's Wall; 2 – Black Sea coast dykes; 3 – Csörsz Dykes; 4 – Dobrudjan dykes; 5 – East Transylvanian dykes; 6 – embankment near Galaţi; 7 - Erkesiia; 8 – Hron-Ipeľ dykes; 9- Large Roman Dyke in the Bačka; 10 – Lower Bessarabian Dyke; 11 – Northern Furrow of Novac; 12– Prut rampart; 13 – Serpent Wall; 14 – Southern Furrow of Novac; 15 – Stara Planina dykes; 16 – Transdanubian rampart; 17 – Tutrakan Dyke; 18 – Upper Bessarabian Dyke; 19 – West Bulgarian dykes

scholars writing in the 1980s. This survey of the current state of research is meant to offer a perspective and to suggest possible avenues for further studies.

Perhaps the most spectacular element of the recent studies are the efforts to identify and date new earthworks in areas that have not until now been considered. This is the case of the embankments in the Szekler country of central Romania (Harghita, Covasna and Braşov counties; Figure 1, no. 5). Long viewed as elements of the Arpadian-age system of defense on the eastern border of the Kingdom of Hungary, the ramparts run over several tens of kilometres from the upper course of the Târnava Mare River, just north of Odorheiu Secuiesc to the northern slopes of the Perşani Mountains (near Măieruş on the river Olt, north of Braşov). They have been GPS mapped in 2000 and several segments were identified by means of aerial photography (Sófalvi 2013: 89; for a detailed description, see Sófalvi 2017: 231–256). The northernmost segment, known as Ördög útja (Devil's Way), goes between the villages of Dealu and Căpâlniţa (Harghita County), is 4–8m wide and 0.5–1.5 m high, and has two ditches, one on each side (Sófalvi 2013: 89 and

Figure 2: The Ördög útja dyke in the Zetea upland of eastern Transylvania (Photograph: András Sófalvi)

90 fig. 1) (Figure 2). The following segment, known as Ördögbarázda (Devil's Furrow) stretches from Vlăhiţa to Mereşti (Harghita County), is 7–12m wide and reaches 1.5 m in height. Unlike Ördög útja, it has a section made of stone and another made of earth, with a ditch on each side identified for each section (Sófalvi 2013: 89). The third segment is called Kakasbarázda (Rooster's Furrow). This is a 2m-high dyke, more than 10m wide in some spots, and with only one ditch to the east (Figure 3). Charred timber remains and a thick layer of burnt soil found on top in the section near Vârghiş (Covasna County) suggest the existence of a palisade or a fence. Charcoal samples from that timber structure have been collected in 2005 and radiocarbon dated to the Avar-age (1σ calibrated dates 681–766, 689–789 and 773–880; Sófalvi 2017: 153).[2] The southernmost segment, Ördögárok (Devil's Dyke) runs for a few kilometres between Ormeniş and Apata (Braşov County). It is believed to be of a similar, Avar-age date, even though no samples have been collected from that segment (Sófalvi 2017: 151). As Avar-age finds are conspicuously absent from the

[2] The three samples of charcoal from the built structure of the rampart, which were analyzed at the Institute for Nuclear Research in Debrecen (Hungary), produced the following dates: 1205 ± 40 14C BP (Deb-13396); 1250 ± 35 14C BP (Deb-13402); 1280 ± 40 14C BP (Deb-13403). More samples from the Kakasbarázda and the Ördög útja have been radiocarbon dated in 2008 and produced similar (cal. AD 1 σ) dates: 647–765 (Deb-16381), 669–768 (Deb-16365), and 784–978 (Deb-16213) (Sófalvi 2017: 153).

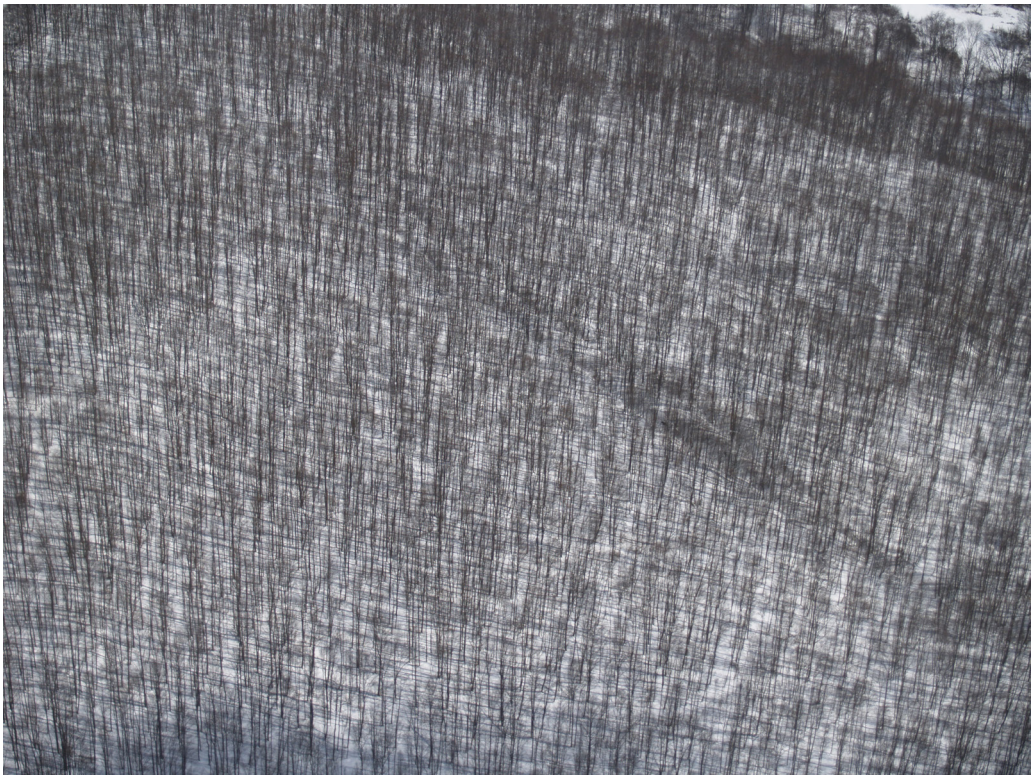

Figure 3: The Kakasbarázda dyke south of the river Olt (Photograph: András Sófalvi)

Szekler country in central Romania, the interpretation of the East Transylvanian dykes remains a matter of debate (for Avars in Transylvania, see Cosma 2020). Old radiocarbon dates have meanwhile changed the interpretation of the embankments along the lower courses of the rivers Hron and Ipeľ in Slovakia (Kolník 1978: 141 and 143)(Figure 1, no. 8). Judging from the samples collected from the fill of the ditch in the vicinity of the village of Žemberovce (district of Levice, region of Nitra), the so-called 'burned rampart' is most likely an eighth-century structure, not a Roman linear fortification.[3] Tivadar Vida has advanced a similar date for the rampart from the Kapos River to the wetlands on the southern shore of Lake Balaton, 'because it runs along the southern boundary of the Avar settlement territory' (Vida 2021: 183)(Figure 1, no. 16).[4]

Elsewhere, stratigraphical information obtained from systematic excavations has clarified the chronology of the earthworks, even though their interpretation is disputed.

[3] It is worth mentioning, however, that the radiocarbon dating was done by Hans Quitta in Berlin in the late 1970s, before the advent of accelerated mass spectrometry. The date of 760 obtained by means of that measurement is therefore to be treated with great caution.

[4] By contrast, Uwe Fiedler believes that dyke to be of an early Arpadian age, i.e., after c. 1000 (Fiedler 2016: 343). Tivadar Vida has also dated to the eighth century another, 8km-long dyke (known as the Vasvár Dyke) between the Zala and the Rába rivers in western Hungary (Kiss and Tóth 1987; Vida 2021: 182).

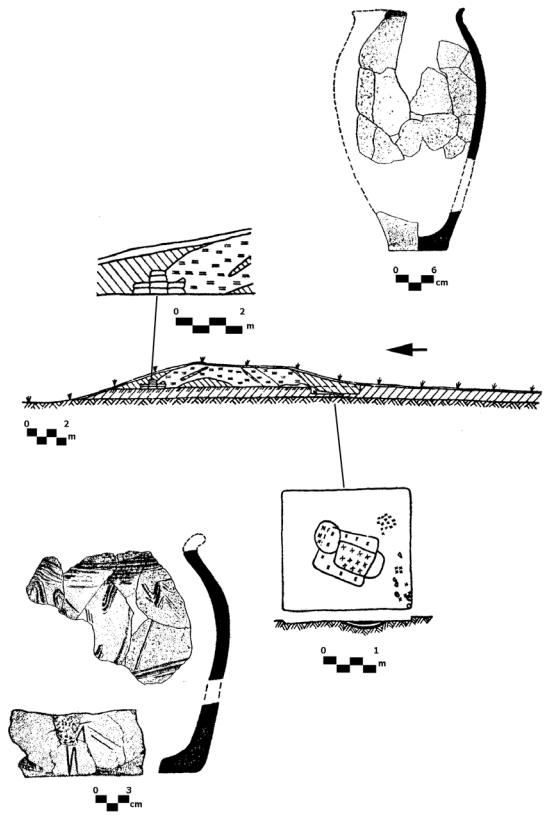

Figure 4: Eastern section of the trench through the Lower Bessarabian Dyke near the village of Kubei, showing the wall of bricks on the northern, and, on the southern side, the superposition of a sunken-floored building with clay oven. Handmade pottery from the filling of the sunken-floored building, in the upper right and in the lower left corner (after Chebotarenko and Subbotin 1991: 129 fig. 2 and 134 fig. 5)

Excavations on the Serpent Wall along the Dniester Lagoon showed that the rampart cut through a third–fourth-century cemetery at Moloha (district of Bilhorod-Dnistrovs'kyi, region of Odesa, Ukraine; Chebotarenko and Subbotin 1991: 125–126; Figure 1, no. 13). Between 1986 and 1988, excavations were carried out on the Lower Bessarabian Dyke near the village of Kubei (district of Bolhrad, region of Odesa, Ukraine; Figure 1, no. 10). The excavations revealed that the rampart superposed a settlement, of which five sunken-floored buildings have been excavated (Figure 4). All of them produced handmade pottery without any ornament, but fragments of combed ware have been found in houses 3, 4 and 5 (Chebotarenko and Subbotin 1991: 127, 131, 133, 136, and 138; 134 fig. 5; 137 fig. 7; 138 fig. 8). The combed ware was made on a tournette, a category of pottery that is typical for the second half of the seventh and the eighth century. This dating is not contradicted by the discovery in house 4 of a fragment of handmade pottery with finger impressions on the lip, a type of ornament which appears only after AD 600 (Chebotarenko and Subbotin 1991: 138 fig. 8; Curta 2001: 291).[5] How late after the eighth century was the Lower Bessarabian

[5] The excavators have advanced a date between the sixth and the seventh century for the Kubei settlement, but the pottery thrown on a tournette and the fragment with finger impressions on the lip strongly suggest a later date (Chebotarenko and Subbotin 1991: 141–142).

Dyke built is not clear. However, the excavations in the late 1980s showed that on the side towards the ditch (northern side), the rampart was reinforced with a wall of bricks placed in two or three rows and seven to eight layers (Chebotarenko and Subbotin 1991: 128 fig. 1). This reminds one of the unfired bricks used for the core of the ramparts of the late tenth-century fortifications of Bilhorod and Pereiaslav in Right- and Left-Bank Ukraine, respectively (Rappoport 1956: 82–91).[6] Whether a tenth-century date may be accepted or not, the Lower Bessarabian Dyke is certainly not an early Bulgar construction. *Pace* Rashev, it cannot be linked to the supposed fortification of the Onglos, the first settlement of the Bulgars in the Lower Danube region (Rashev 1981a: 21; Rashev 1981b: 99; Rashev 1987: 50). Equally problematic is the idea advanced by another Bulgarian archaeologist, according to which the Lower Bessarabian Dyke served as border between the Bulgars and the Khazars (Atanasov 2003: 101). There is no evidence of a Khazar presence anywhere near the Dniester River at any point during the ninth or tenth century. If the Lower Bessarabian Dyke was meant to contain the movements of an enemy in the steppe lands of the northwestern region of the Black Sea, that could only have been the Magyars (for the archaeology of the Magyars in the northwestern region of the Black Sea, see Tel'nov 2018; Sinica, Tel'nov and Kvytnyts'kyi 2019; Kvytnyts'kyi *et al.* 2022). Instead of being built against the Khazars, the dyke across the Budzhak steppe may thus have played a role similar to that of Sarkel, the fortress built by Byzantine engineers for the Khazars to serve as an outpost against the Magyars (for Sarkel and the Magyars, see Polgár 2001; L'vova 2003). At any rate, the interpretation of the earthwork in southern Ukraine is very difficult in the absence of a firm chronology.

A similar problem of chronological uncertainty persists for the Csörsz Dykes in Hungary and western Romania (Figure 1, no. 3), the Large Roman dyke in the Bačka, in Serbia (Figure 1, no. 9), as well as the dyke along the Black Sea shore in Bulgaria (Figure 1, no. 2). The Csörsz Dykes cannot be earlier than the second- to fourth-century graves and settlements that they superpose, or later than the grave with a coin struck for King Salamon of Hungary (1064–1065), which was dug into the rampart at Oszlár (Borsod-Abaúj-Zemplén County, Hungary; Garam 1969: 113; Garam, Patay and Soproni 1983: 49–50 and 52; 104 pl. 14/2, 4; Fiedler 1986, 458; Fiedler 2016: 340–341). However, about 15km to the west from Oszlár, at Csincse, the fill of the ditch on the southern side of the Csörsz dyke included fragments of combed ware dated to the ninth century (Fischl 1995; Vida 2021: 182). The ditch must have therefore been built before that date. Nonetheless, there is no evidence either for the building of the Csörsz Dykes in the early Avar age (c.

[6] A late tenth- or early eleventh-century date has been advanced for the Upper Bessarabian Dyke as well (Figure 1, no. 18). The 1982 excavations of the rampart between Grădişte and Coştangalia (district of Cimişlia, Republic of Moldova) showed that between the rampart and the dyke, there was a 4m-wide berm. The rampart is 10m wide and 3m high, with a 2.75m-wide ditch, the depth of which reaches 5m. A fragment of an amphora found on the berm has been used for advancing a late tenth–early eleventh-century date for the construction (Chebotarenko and Subbotin 1991: 127). However, the stratigraphical position of the amphora shard defies that conclusion, as both the berm and ditch must be of a comparatively earlier date. No archaeological excavations have been done on the Prut rampart (Figure 1, no. 12) running on the left bank of the river, and nothing is known about its relation to the Upper Bessarabian Dyke.

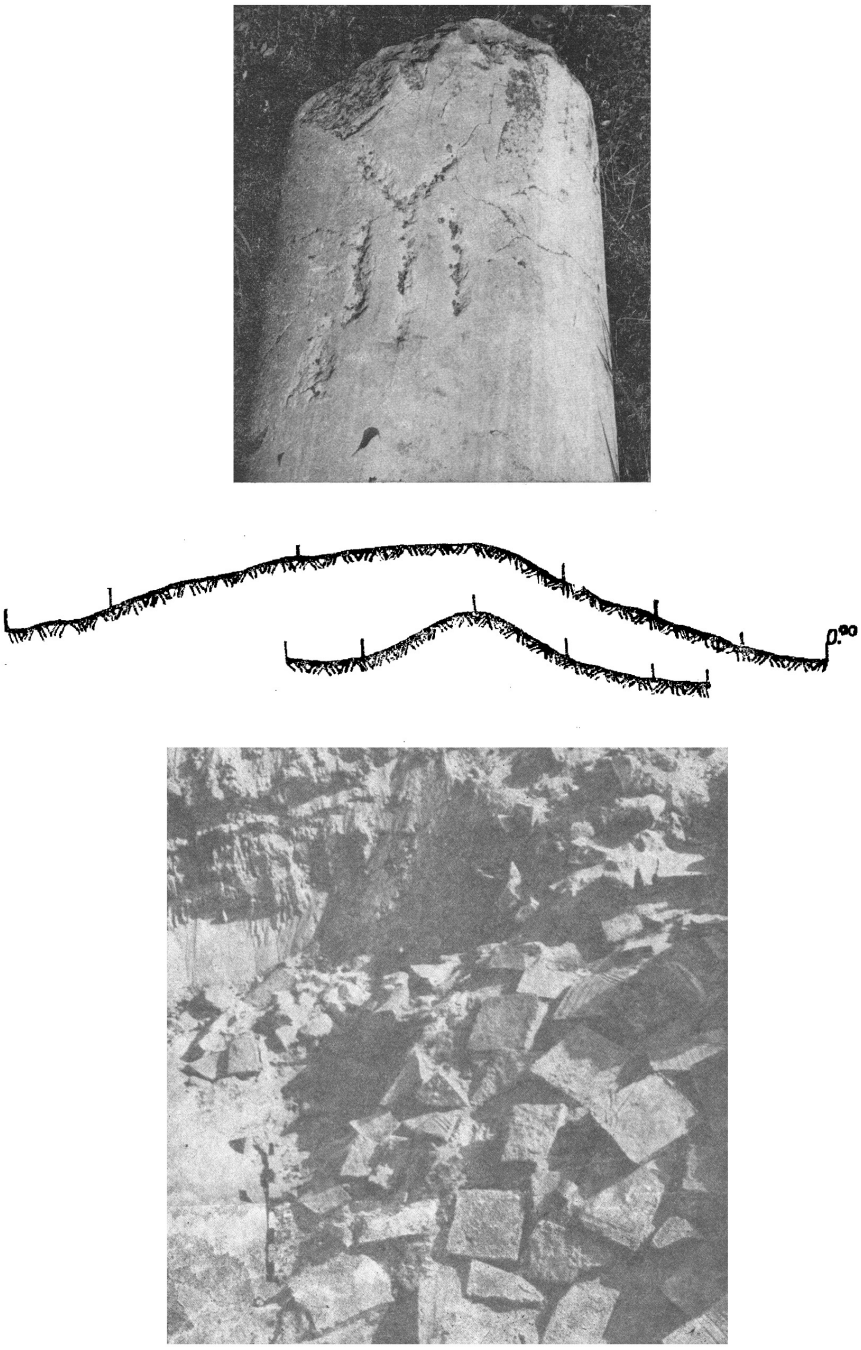

Figure 5: Eastern sections of the trench through Asparukh's Dyke near Varna, with a fragment of a marble column with the Y-shaped sign between two vertical bars (above) and tiles on top of the rampart (after Rashev 1982: 34 pl. IV and picture 9)

570–630) or their re-use and extension during the Late Avar age (c. 780–820; Fiedler 1986: 462; Fiedler 2016: 343).[7] The dating of other, shorter earthworks is also a matter of pure speculation. For example, the dyke along the Black Sea shore (Figure 1, no. 2) was excavated in 1967 and 1972–1973 near the village of Shkorpilovci (a few kilometres south of Varna). The 2.125km-long dyke cuts through a third–fourth-century fortification, as well as a settlement dated between the third and the sixth century. The building of the earthwork was dated to the eighth century on purely historical grounds, with no archaeological support (Rashev 1975). The so-called Asparukh's Dyke near Varna (Figure 1, no. 2) was equally dated to the eighth century, despite the fact that, in addition to spolia from ancient monuments, the list of chronologically sensitive arifacts found in the rampart includes two column fragments with the Y-shaped sign between two vertical bars, a clear indication of a tenth-century date (Rashev 1979a: 121; Rashev 1980; Rashev 1982: 39 and fig. 9) (Figure 5).[8] The Large Roman dyke in the Bačka (Figure 1, no. 9) cuts through the Small Roman dyke, as well as a third–fourth-century settlement. However, its dating to the early ninth century is not supported by any shred of evidence (Nagy 1966; Stanojev 1999–2000: 37–39 and 42 n. 8; Fiedler 1986: 461–462; Fiedler 2008: 165–166; Vida 2021: 182).

By contrast, more recent excavations have shed more light on the chronology of the dykes in northwestern Bulgaria. The West Bulgarian dykes are in fact three distinct, linear earthworks running between the right bank of the river Danube and the foothills of the Stara Planina Mountains, at a distance of 35–45km from each other (Figure 1, no. 19). The easternmost earthwork, known as the Ostrov(ski) Dyke is the longest of all three (58km) and was built in the middle of the plain between the Iskăr and the Ogost rivers, both right-hand tributaries of the Danube (Grigorov 2020: 67 and 69; see also Grigorov 2011). The first excavations were carried out in the early 1960s at the northern end, near the village of Ostrov (province of Vraca, Bulgaria)(Figure 6).[9] A geomagnetic survey accompanied the excavations of 2010, and more excavations were carried out in 2019 near Galovo (province of Vraca) in anticipation of an expansion of a gas pipeline along the Balkan Stream (Grigorov 2020: 72 and 75–76). The latest excavations produced evidence of ninth-century pottery, fragments of which were found in the alluvial layer that clogged the bottom of the ditch on the western side of

[7] Some have attempted to treat the Csörsz Dykes as the eastern boundary of the Avar-age settlement in the Carpathian Basin. However, Avar-age finds are known from both sides of the earthworks. Nonetheless, some continue to cling to the old idea, even when acknowledging the evidence to the contrary (Cosma 2004: 97, contradicted by Cosma 2016: 330-331 and 330 fig. 3).

[8] Quite common on many categories of artifacts found in Bulgaria—stone, ceramic, or metal—the sign has initially been interpreted as having a pre-Christian, cultic significance (Georgiev 1978; Beshevliev 1979; Mikhailov 1987; Petrova 1990; Rashev 1992; Atanasov 1993; Georgiev 1996; Stepanov 1999; Stateva 2005; Doncheva-Petkova 2015). Most scholars now agree upon the Christian meaning of the sign and the dating of its use primarily to the tenth century (Mikhailov 1979: 52 fig. 2/2-5; Totev 1991; Ilievski 1996; Dzanev 2000; Rashev 2003: 165: Tabov and Todorov 2007; Ilieva 2008; Rashev 2008; Inkova 2020).

[9] The northern end of the Ostrov dyke does not reach the Danube, perhaps because at the time of its construction the Ostrovsko Marsh reached much farther to the east than it does now (Grigorov 2020: 70).

Figure 6: View from the south of the Ostrov Dike near the village of Ostrov, with the modern road on top of the rampart (Photograph: Valeri Grigorov)

the rampart (Grigorov 2020: 83). Animal bones were also found in the ditch, and the radiocarbon dates of some of them range between 767 and 900, with two possible peaks in 802-845 and 853-885 (Grigorov 2020: 85; Figure 7).[10] The 2019 excavations across the next earthwork to the west, the Hairedin Dyke, produced no comparable evidence (Komatarova-Balinova and Aleksiev 2020).[11] However, ninth-century pottery like that from the ditch excavated near Galovo is known from a number of settlement sites in the immediate vicinity of the Hairedin Dyke (Rashev and Ivanov 1986: 20; 21 fig. 8; 22 fig. 9). Furthermore, several cemeteries dated to that same century have been discovered in the region, some fully (Dolni Lukovit, with three different sites), others only partially excavated (Galiche, Mikhailovo and Bukovci; Văzharova 1976: 175, 177, 213, 214, 220, 225, 247; 176 fig. 106; 222 fig. 138; Fiedler 1992: 458–461; 459 fig. 127). The site closest to the Ostrov Dyke is 6km to the east from the rampart, near the town of Knezha (province of Pleven, Bulgaria). The early medieval settlement excavated there in 2019 had ovens

[10] The animal bones got into the ditch at some point after the pottery, which accompanied the accelerated clogging caused most likely by erosion.

[11] The excavations carried out by Rasho Rashev on the Hairedin Dyke in the late 1970s and the mid-1980s were equally devoid of any chronologically conclusive results (Rashev and Ivanov 1986: 16–19; 12 fig. 1; 17 fig. 5).

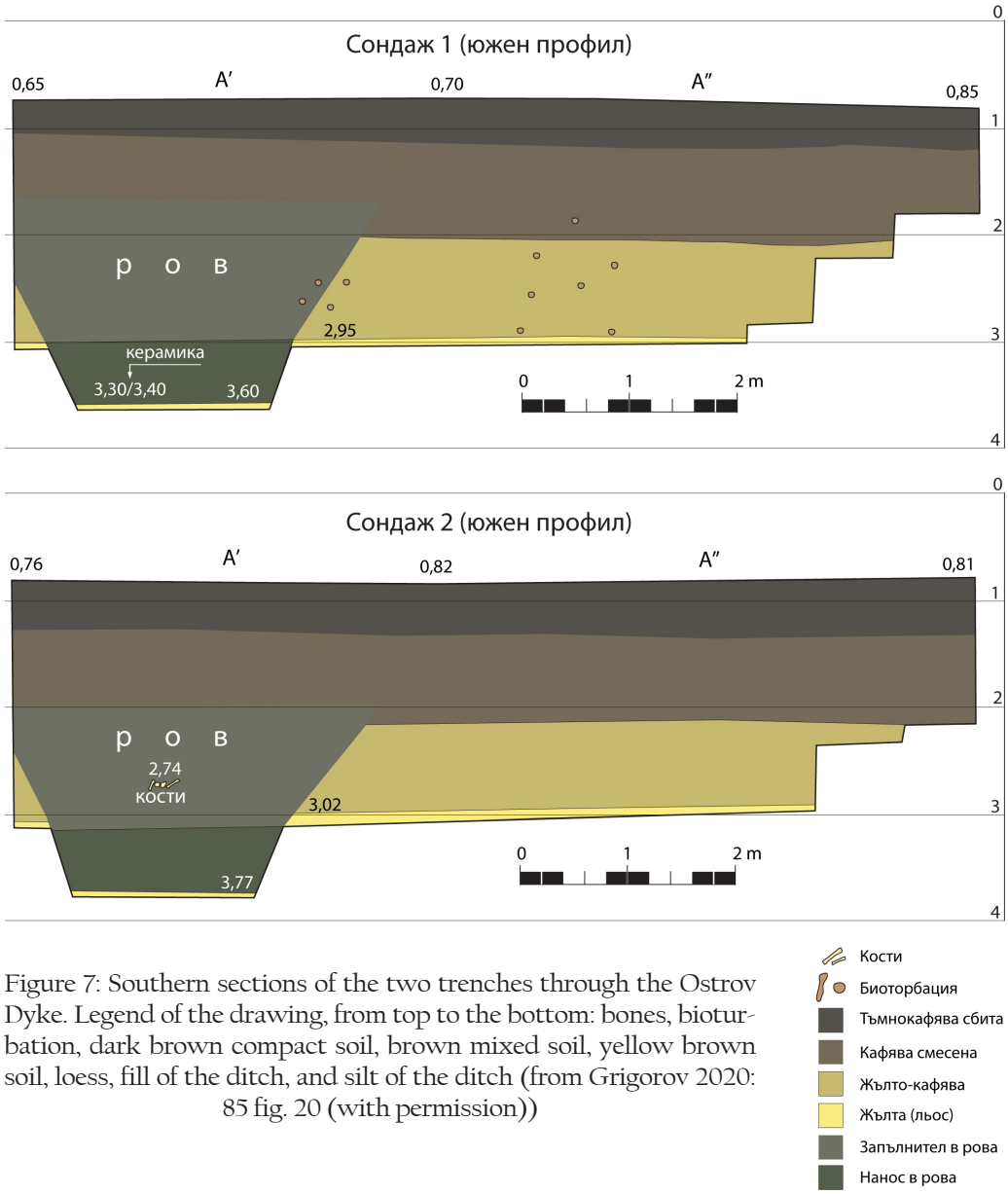

Figure 7: Southern sections of the two trenches through the Ostrov Dyke. Legend of the drawing, from top to the bottom: bones, bioturbation, dark brown compact soil, brown mixed soil, yellow brown soil, loess, fill of the ditch, and silt of the ditch (from Grigorov 2020: 85 fig. 20 (with permission))

for preparing the food and baking bread, a smelting furnace and a well – all facilities that may have been part of the logistical support for the labour force engaged in the construction of the dyke (Grigorov 2020: 84).

Early medieval, possibly ninth-century, pottery has also been found in association with the Erkesiia Dyke in Thrace (for an early description of the earthwork, see Shkorpil 1884; Shkorpil 1905: 538–543; for the origin and meaning of the name, see Blagoev 1925: 293). The 131km-long earthworks stretching from the Black Sea (Bay of Burgas) to the Marica

River have a 7m-wide ditch to the south (Figure 1, no. 7). The Bulgarian archaeologist Dimităr Ovcharov (1931–2013) first explored the dyke through trial excavations near the village of Liulin (province of Yambol, Bulgaria). Both the remains of Grey Ware with burnished ornament and the battle axe with asymmetrical blade found nearby have been dated to the late eighth and to the ninth century (Ovcharov 1970: 453 and 457; 459 fig. 12).[12] Ninth-century combed ware was found in the excavations of two other segments of the Erkesiia located farther to the east, one at Sărnevo, the other at Debelt, both in the province of Burgas (Momchilov 1990: 63–66; Momchilov *et al.* 2015: 161 and 164).[13]

Ninth-century pottery has also been found in abundance during the 2011 and 2012 excavations on the Large Earthen Dyke, one of the three earthworks running across Dobrudja (Figure 1, no. 4). The excavations took place next to the westernmost end of the Large Dyke, at Făclia (Constanţa County, Romania).[14] The Large Dyke is the shortest of all three earthworks stretching from Cernavodă on the Danube to the shore of the Black Sea at Constanţa over 54km (or 41km only, if one takes into consideration the gap between Gura Ghermelelor and 'La Pietre'; Damian *et al.* 2014: 292 and 299). Unlike the other two earthworks in Dobrudja, the Large Dyke has two ditches, one on either side (Figure 8).[15] The northern ditch is 12m wide and 4.25m deep, while the southern ditch is only 5m wide and 1m deep (Rashev 1982: 77–95; Papuc 1992: 324; see also Papuc 2016). For about 4km in the west, the Large Dyke was built on top of the Small Dyke, a clear indication that it is of a later date. From 'La Pietre' to the east, it runs alongside the Stone Dyke, which is located only 40m to the north. At some point between Castelu and Poarta Albă (both in the Constanţa County), the Stone Dyke cuts through the Large Dyke, another indication that the former is the latest of all linear earthworks in the Dobrudja. Ninth-century pottery is known from earlier, trial excavations carried out near Cochirleni and Valu lui Traian, as well as near Medgidia and Poarta Albă (Diaconu 1973–1975: 201 and 204; pl. II; Panaitescu 1978).[16]

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[12] Later excavations near Liulin in the context of the installation of a gas pipeline produced no such pottery (Grigorov and Vasilev 2007).

[13] The bifurcation at the eastern end of the Erkesiia, near Debelt, has been explained as the result of the correction of the Bulgar-Byzantine frontier by Emperor Leo V (814–820), but such an interpretation is simply based on equating the Erkesiia Dyke with the frontier, as described in the Suleyman Köy inscription (Georgiev 2015: 149–151; for the inscription see Beshevliev 1992: 164; for the frontier described in the inscription and its relation to the Erkesiia Dyke, see Curta 2011: 16–22).

[14] Both the Large and the Small Earthen dykes begin on the right bank of the Danube, about1 km to the north-west from the village of Cochirleni (Constanţa County). The eastern end of the Large Dyke reaches the seashore west of Constanţa and about 1km to the south from the eastern end of the Small dyke (Damian *et al.* 2014: 292). For the three earthworks in Dobrudja, see Schuchhardt 1918 and Shkorpil 1925.

[15] The chronological relation between the two ditches remains unclear, but the Large Earthen Dyke has 36 large and 28 small forts, two of which have been built inside two large forts (Papuc 1992: 323 with n. 2). This has rightly been interpreted as two phases of construction, if not use, but there are no visible traces of that on the rampart itself. Nor is it possible stratigraphically to attach one ditch to one phase, and another to the other phase.

[16] For reasons known only to him, Georgiev 2005 ignored the archaeological evidence and dated the Large Dyke to the fourth century.

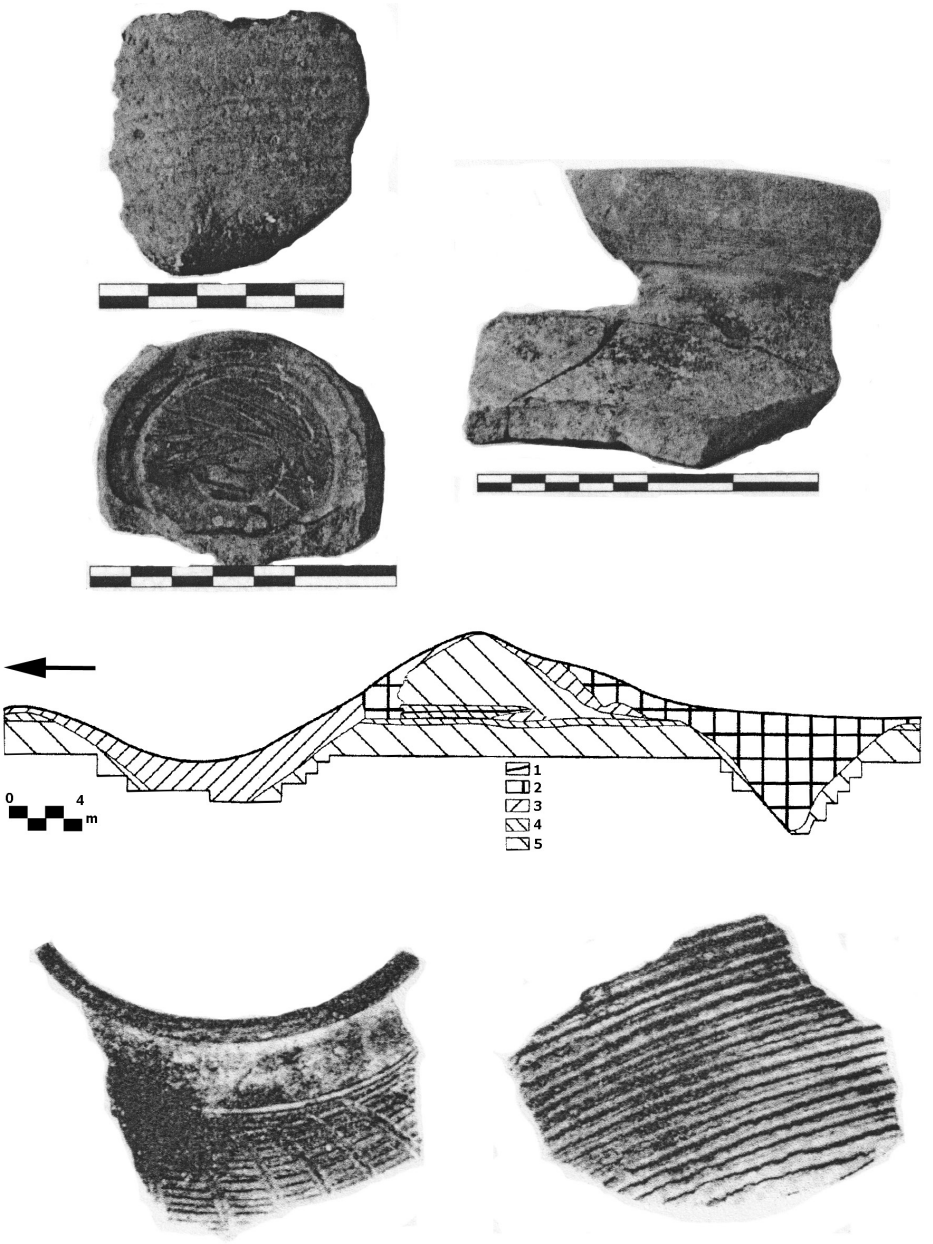

Figure 8: Eastern section of the trench through the Large Earthen Dyke near Gura Ghermelelor: 1 – topsoil; 2 – brown soil with yellow inclusions; 3 – brown soil; 4 – brown soil with organic inclusions; 5 – clay (after Comşa 1951: 234 fig. 1). Ninth- and tenth-century ceramics discovered in the Large Earthen Dyke near Făclia (above) and Cochirleni (below) (after Diaconu 1973–1975: pl. II and Damian et al. 2014: pl. XXI)

Unlike the Large Dyke, there is still no direct evidence (i.e., from the dyke itself) for the dating of the clearly later Stone Dyke.[17] For a long time, the main argument in favor of a tenth-century date was the Cyrillic inscription from Mircea Vodă (Constanţa County), which refers to an unknown enemy's attack against the 'Greeks' in 6451 (AD 943), when 'Demetrius was *zhupan*' (Bogdan 1958; Bozhilov 1973; Mikhailov 2005). However, the inscription was accidentally found in 1950 by inmates of Communist Romania's largest gulag during excavations for the canal (now) linking the Danube to the Black Sea, across Dobrudja. Despite claims that it had been reused for the foundation of one of the forts associated with the Stone Dyke, the circumstances of its discovery are quite dubious (Comşa 1951: 237; Rashev 1979b: 17). In addition, the fort in question was already heavily destroyed by occasional excavations in 1917 (Schuchhardt 1918: 53). The rampart has been explored archaeologically, but with no conclusive results.[18] A gold coin struck for the Byzantine emperors Constantine VII and Romanus II between 945 and 959 was found in 1986 in one of the forts associated with the Stone Dyke, but much like in the case of the Mircea Vodă inscription, the archaeological context remains unclear (Vertan and Custurea 1995–1996: 315). Later salvage excavations (1997–1999 and 2001) did not add anything to this bleak picture (Paraschiv-Talmaţchi 2019: 386). However, two fragments of polychrome ware found in 2012 during the excavations south of Cernavodă strongly suggest a date within the tenth century (Paraschiv-Talmaţchi 2019: 391 and 399 pl. III/3; for the polychrome ware, see Comşa 1985; Kostova 2009). Several settlements dated to that period are known from the immediate vicinity of the dyke. South of Cernavodă, the many dwellings of one of them were discovered at a distance of less than 8 m from the rampart (Paraschiv-Talmaţchi 2019: 391). At Valu lui Traian, the excavations carried out in 2010 and 2011 brought to light a large settlement with three smelting furnaces, a kiln, many baking ovens, and two wells, a situation remarkably similar to that identified less than a decade later near Knezha, in Bulgaria (Paraschiv-Talmaţchi 2019: 392).[19]

Although the longest and clearly the oldest of all three linear earthworks across Dobrudja, the Small Earthen Dyke is the least known archaeologically. Its chronology is still a matter of debate. The rampart is 1–3m high, with a ditch on the southern side, the width of which varies between 13 and 14m (Papuc 1992: 328). Such characteristics led some to believe that the Small Dyke is of late antique, and not early medieval date

[17] The Stone Dyke has 26 forts, one of which was built on top of the Small Dyke, while another on top of the Large Dyke (Papuc 1992: 325).

[18] Trial excavations on the Stone Dyke took place in 1965, but no results have been published. Nor have those of the 1986–1987 salvage excavations (Papuc 1992: 325–326). To be sure, the earliest excavations of the dyke took place in 1935 between Palas (now on the western periphery of the city of Constanţa) and present-day Valu lui Traian, but no documentation survives (Paraschiv-Talmaţchi 2019: 383).

[19] Much like in the case of the West Bulgarian dykes, there are also several cemeteries excavated in the vicinity of the earthworks of Dobrudja, only one of which has been published in its entirety (Rădulescu and Harţuche 1967). For a large cemetery associated with the ninth–eleventh-century settlement site in Valu lui Traian, see Paraschiv-Talmaţchi 2019: 392–393.

(Georgiev 2010).[20] At any rate, there is no evidence that the Small Earthen Dyke and the Lower Bessarabian Dyke were built at the same time, presumably shortly before AD 700 (Rashev 1987: 50). Similarly, claims that the earthworks in southern and southeastern Romania – the Northern and Southern Furrows of Novac (Figure 1, nos 11 and 14), as well as Athanaric's Wall (Figure 1, no. 1), and the embankment near Galaţi (Figure 1, no. 6) – were built in the early Middle Ages have no archaeological support (Rashev 1981b: 100–101; Fiedler 2008: 163 and 164; for a brief presentation of the earthworks in southern Romania, see Alexandrescu 2009: 99–101 and 103–104).[21] The same is true for the speculations regarding the date of other earthworks in Bulgaria, such as those at Tutrakan (Figure 1, no. 17) or in the Stara Planina mountains (Figure 1, no. 15)(Rashev 1976; Rashev 1982: 71, 73, 109 and 123).

The interpretation of linear earthworks in strictly military terms is still favoured in some circles, most conspicuously in relation to the Large Earthen and the Stone dykes in Dobrudja. The association of each one of them with a relatively large number of forts is regarded as sufficient evidence that they may have been conceived as defensive, garrisoned barriers built 'in the middle a military district on the northern frontier of the medieval Bulgarian state' (Curta 1999: 148). There is nonetheless a conspicuous absence of other material culture elements associated with the military, particularly the deposition of weapons in burials.[22] The evident presence of a relatively large civilian population is explained as a consequence of the establishment of the military district (Rabovianov 2007). The dykes in northwestern Bulgaria have also been interpreted in strategic and tactical terms (Grigorov 2020: 90–91). Given the chronology indicated by finds, they are believed to have been built in the aftermath of the collapse of the Avar qaganate. The resulting political instability in the region was marked by the defection of two local tribes (the Abodrites and the Timochans) from Bulgar allegiance (Vălov 1986; Curta 2019: 96–97). The dykes were thus a response to the conflict between the Bulgars and the Franks during the reign of Omurtag (814–831)(Andonov 2015). The Erkesiia may also be dated to the reign of Omurtag, but its significance is administrative, legal and economic, and not (only) military (Blagoev 1925: 293). The political goal of the frontier between Bulgaria and Byzantium marked by means of an earthwork was to serve as a 'legal barrier against defections, surprise attacks or spies' (Curta 2011: 31). From an economic point of view, the barrier may have regulated commercial activities by directing all movements of goods towards established points of crossing, such as the 'fort' at Liulin. A similar interpretation has been advanced for the dykes in eastern Transylvania. Given that several sections of those earthworks hide behind ridges (e.g. the

[20] A late antique date for all the linear earthworks of Dobrudja has also been advanced by Bogdan-Cătăniciu 1996, largely on the basis of her interpretation of aerial photographs taken in 1918.

[21] Rasho Rashev and Uwe Fiedler's idea of the Northern and Southern Furrows of Novac being built by the Bulgars contradicts the archaeological evidence of a strong Bulgar presence in southern Transylvania, across the Carpathian Mountains (Madgearu 2002–2003; Iotov 2012).

[22] The only tenth-century sword finds from Dobrudja have been associated with the presence of the Varangians during the Rus' intervention in Balkan affairs between 967 and 971 (Iotov 2018).

southernmost part of Kakasbarázda, from the left bank of the Nădaş River to Augustin) or even run along the edge of a river, they are both unsuitable and unnecessary from a military point of view. Instead, they must have had an economic (commercial) role of regulating the flow of goods in the direction of certain routes or gates (Sófalvi 2017: 155). A non-military, utilitarian interpretation has also been advanced for the earthworks along the Black Sea shore in Bulgaria, as well as those in the Bačka (northern Serbia). The former were roads, not dykes, while the latter were the result of efforts to drain the marshy lands in the southern part of the Carpathian Basin (Georgiev 2009: 91–92; Stanojev 1999–2000).[23]

How were the dykes built? The choice of a particular location and the manner in which the line of the earthwork was traced on the ground have received very little attention from scholars working on the topic. In the case of the Erkesiia, the remarkable coincidence between the trajectory of the rampart and the description of the Bulgar-Byzantine frontier in the Suleyman Köy inscription implies a deliberate attempt to mark on the ground an abstract line, which must have involved perambulation (Curta 2011: 16–21). In other cases, builders used pre-existing features in the landscape. There is a great deal of overlap between the trajectory of the three earthworks in the Dobrudja, particularly between the Small and the Large dykes, with the former being the earliest of all. The northern segment of the Ostrov dyke in northwestern Bulgaria runs in parallel with an old road paved with stone slabs, which is believed to be of Roman age (Shkorpil 1905: 530–531; Grigorov 2020: 68). Equally timid are the scholarly attempts at understanding the social organisation of the labour involved in the building of the dykes. One of the most important shifts in the historical interpretation is the recent emphasis on earthworks as statements of power, with a symbolic value that far exceeds any practical needs. Early medieval earthworks in Bulgaria 'offered a unique occasion for rulers to exercise power over the bodies of those whom they ruled by having them handle the soil' (Squatriti 2005: 90; see also Squatriti 2002 and 2021). It has been estimated that the total volume of soil excavated along the Ostrov dyke was about 600,000 cubic metres. At an average excavation rate of 1 cubic metre per man-day, about 5,000 people must have been necessary over 120 working days for building the rampart. The logistical support for such a labour force was based in the neighbouring settlements (Grigorov 2020: 87–88; see also Paraschiv-Talmaţchi 2019: 391). Pál Patay has calculated that the total volume of soil excavated along the Csörsz Dykes was 10 million cubic metres requiring a considerable number of work days (Garam *et al.* 1983: 15). However, not all segments of those earthworks were built at the same time. More such estimates are needed before one can begin to compare contemporary earthworks and gauge their significance as 'statements of power'. Detailed studies of the settlement pattern may also be instrumental in understanding the considerable effort of organization, as well as the underlying social structure responsible for the erection of those monuments in the landscape. This is particularly needed for the Csörsz and Bessarabian dykes, but

[23] It is important to note in this respect that the Serbian name of the earthworks in the Bačka ('Rimski šančevi') refers to the ditch, not to the rampart.

only when their chronology is firmly established, lest comparisons are going to be either irrelevant for particular periods, or too vague for a high-resolution reconstruction of the historical process.

Table 1: Linear earthworks in east central and southeastern Europe

Name	Length (km)	Ditch to the …	Dating method	Date
Asprukh's Dyke	2	west	spolia	10th c.
Athanaric's Wall	90	south	written sources	4th c. (?)
Csörsz Dykes	1,260	to the north & east	stratigraphy	4th–11th c.
Erkesiia	131	south	ceramics	9th c.
Galaţi embankment	25	south, west & north	–	1st–2nd c. (?)
Hairedin Dyke	24	west	–	9th c. (?)
Horn-Ipel' Dykes	60	east	C^{14}	c. 760
Kakasbarázda	18.55	east	C^{14}	681–766 689–789 773–880
Large Earthen Dyke	54	north & south	ceramics	9th c.
Large Roman Dyke in the Bačka	38	south	stratigraphy	post-4th c.
Lom(ski) Dyke	25	south	–	?
Lower Bassarabian Dyke	138	north	stratigraphy	post-8th c.
Northern Furrow of Novac	400+	north	–	1st–2nd c. (?)
Ördög útja	7.5	north	C^{14}	784–978
Ördögárok	7.75	east	–	7th–8th c. (?)
Ördögbarázda	5.25 + 8	west & east	–	?
Ostrov(ski) Dyke	58	west	C^{14}	802–845 853–885
Prut rampart	12+	east	–	?
Serpent Wall	60+	north-east	–	?
Shkorpilovci Dyke	2	west	written sources	8th c. (?)
Small Earthen Dyke	61	south	–	?
Southern Furrow of Novac	150	north	–	1st–2nd c. (?)
Stara Planina Dykes	0.2–10	south	–	?
Stone Dyke	59	north	inscription	10th c.
Transdanubian rampart	8	west	–	?
Tutrakan Dyke	16	north	stratigraphy	8th–9th c.
Upper Bessarabian Dyke	120	north	stratigraphy	1st–2nd c.

The earthworks in East Central and Southeastern Europe that could be dated with some degree of certainty to the early Middle Ages, namely between c. 700 and c. 1000, offer a great deal of comparative material for the ongoing debate surrounding linear frontiers and dykes in medieval Europe. The extraordinary variety in size, mode of construction, and orientation

precluded any universal interpretation (Table 1). In addition, the complex cultural and political context of those earthworks has invited a variety of interpretive solutions, each one of which may be used as a cautionary tale for any general discussion attempting to take into consideration everything from Offa's Dyke in Britain to the Stone Dyke in Romania. The relation between early medieval frontiers and the building of earthworks is also an issue that can be best studied in Southeastern Europe, because of the exceptionally rich record of both historical and archaeological information. More importantly, in Bulgaria and Romania the excavation of both settlements and cemeteries located in the immediate hinterland of the dykes has recently opened the possibility to explore the issue of the social labour involved in the erection of those formidable features of the early medieval landscape.

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The Serpent Ramparts in Ukraine: Fifty Years of Archaeological Research

Florin Curta

Named after a folk tale first recorded in the nineteenth century, the Serpent Ramparts in the Ukraine have been thoroughly investigated archaeologically in the 1970s and 1980s. The results of the excavations clarified the chronology of the earthworks, but also revealed a sophisticated building technique employing timber structures. The relation of the dykes to neighbouring strongholds and especially open settlements have been the focus of the subsequent research. The dates initially advanced for the earthworks (late tenth to early eleventh century) may not apply to all surviving segments, but the initial impetus for the building of the Serpent Ramparts seems to have come from the Rus'-Pecheneg confrontations along the northern boundaries of the steppe belt in Eastern Europe.

Keywords: Ukraine, timber structure, stratigraphy, open settlements, strongholds

Although a prominent feature in the landscape of both Right- and Left-Bank Ukraine, the Serpent Ramparts (*Zmievi valy)* have not attracted scholarly attention before the nineteenth century, and then only after medieval strongholds and towns had already been a subject of investigation. The earthworks were definitely called 'of the Serpent' by that time, for in his *Poetic Outlook on Nature by the Slavs*, the Russian ethnographer Aleksandr N. Afanas'ev (1826–1871) included a folk tale meant to explain the name. According to that tale, the earthworks have been formed in the course of the confrontation between a monster (winged serpent) and two saints, Cosmas and Damian, who were reputedly blacksmiths.[1] Using a pair of gigantic tongs which they forged for the occasion, Cosmas and Damian were able to catch the monster and hitch it to an equally gigantic plough. As they began plowing with this unusually activated tool, the resulting furrow produced a dyke on one side, henceforth called Serpent Wall or Rampart. The furrow marked the territory beyond which the monster was not allowed to pass, but tormented by thirst, the winged serpent dragged the plough to the sea, where it began to drink so much water that it collapsed (Afanas'ev 1865: 559–562).[2]

[1] Although prominent among the Holy Unmercenaries, therefore venerated in the Orthodox Church as healers or physicians much like St Panteleimon or St Agapetus of the Kievan Caves, Sts Cosmas and Damian appear in Ukrainian folk tales as blacksmiths, perhaps because of the chance assonance between the Ukrainian pronunciation of the name of Cosmas (*Kuz'ma*) and the word for smithy (*kuznia*).

[2] A variant of the legend recorded by Lev Padalka has the two saints providing the plough, with the action of capturing and hitching the serpent done by a local hero (*bohatyr)* named Kyrylo Kozhumiaka (Padalka 1914: 8). The same name (Serpent Wall) applies to another, 60.2km-long dyke along the northeastern shore of the Budaki Lagoon. That dyke starts some 3km to the southeast from Shabo (region of Odesa, Ukraine) and reaches Palanca (district of Ştefan Vodă, Republic of Moldova) on the Dniester River (Uhlig 1928: 190).

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The first scholarly attempts to deal with the earthworks in Ukraine moved against the folk etymology, and attributed them to Emperor Trajan, most likely because of comparison with dykes in what are now southern Moldova and southern Romania, where any linear earthwork is designated as *troian*, a word derived from the name of the Roman emperor (Funduklei 1848: 30–31; Grabowski 1850: 72). By the late nineteenth century, the dating moved to the tenth century and was linked to the early Rus' state. However, the discussion was only based on maps and written sources (primarily, the early Rus' annals). In the early twentieth century, the Ukrainian archaeologist Vasyl' Liaskorons'kyi (1859–1928) complained about the lack of any archaeological research (Liaskoronskii 1907: 202 and 206). The interest in such research had nonetheless been prompted by the letter that the historian and archaeologist Mykhaylo Maksymovych (1804–1873) had sent in 1869 to the Archaeological Society in Moscow, describing the Serpent Ramparts (Kuchera 1987c: 5). Fifteen years later, Volodymyr Antonovich (1834–1908) published the most comprehensive description of the earthworks, accompanied by a plan (Antonovich 1884). However, the first archaeological excavations were organised only 90 years later.

Under the direction of Mykhaylo P. Kuchera (1922–1999), the Archaeological Institute in Kiev initiated the archaeological research of the Serpent Ramparts over a period of ten years (1974–1976, 1979, and 1980–1985) (Kuchera and Iura 1976; Kuchera 1983; Kuchera 1986; Kuchera 1987a; Kuchera 1988; see also Priadko 2019: 70–71). A specialist in medieval fortifications, Kuchera defended a dissertation based on that research, which became his first monograph (Kuchera 1987b, published as Kuchera 1987c).[3] Trenches cut the Serpent Ramparts at various points – Zdvyzh, in the Makariv district west of Kiev; in the Vasyl'kiv district to the south-west from that city; along the left bank of the river Dnieper, and along the Sula. The later excavations focused on the dykes along the rivers Bobrytsia, Ros' and Irpin, as well as between the rivers Irpin and Unava, Dnieper and Teteriv, Ros' and Huiva (Kuchera 1987c: 15). The most detailed description so far, complete with a general map of the dykes was published in Kuchera's 1987 monograph (Kuchera 1987c: 19–60 with a general map at 16–17, fig. 4).

The Serpent Ramparts are in fact a series of dykes stretching from west to east, all the way to the River Dnieper, south of Kiev, in Right-Bank Ukraine (Figure 1). The total length of the surviving embankments is about 1,000km, but many segments still visible in the nineteenth century have meanwhile disappeared (Morgunov 2009: 200).[4] The shortest among those surviving is just south of Bilohorodka in the region of Kiev, most

[3] A descendant of Czech colonists, Kuchera lived most of his life in the Ukraine, but identified as Belarusian (Tomashevs'kyi *et al*. 2022: 7). Between 1952 and 1974, he excavated a number of early medieval strongholds in the Lviv region of present-day Ukraine, such as Plisnes'k (in Pidhirtsi) and Khodoriv (Kuchera 1955; Kuchera 1959; Kuchera 1962; Kuchera 1966; Kuchera 1975). By 1974, he was highly regarded as an expert in the military architecture of early Rus'. To this day, Kuchera 1999 remains the most authoritative study on that matter pertaining to the territory of present-day Ukraine.

[4] The least studied segment, which has already disappeared, is the rampart along the right bank of the river Trubezh (north of Pereiaslav[-Khmel'nyts'kyi']). Somewhat better preserved is the rampart on the left bank of the river Oster (to the northeast from Kiev). For segments indicated on a map of 1772, but invisible today, see Morgunov 2009: 203 and 204 fig. 92.

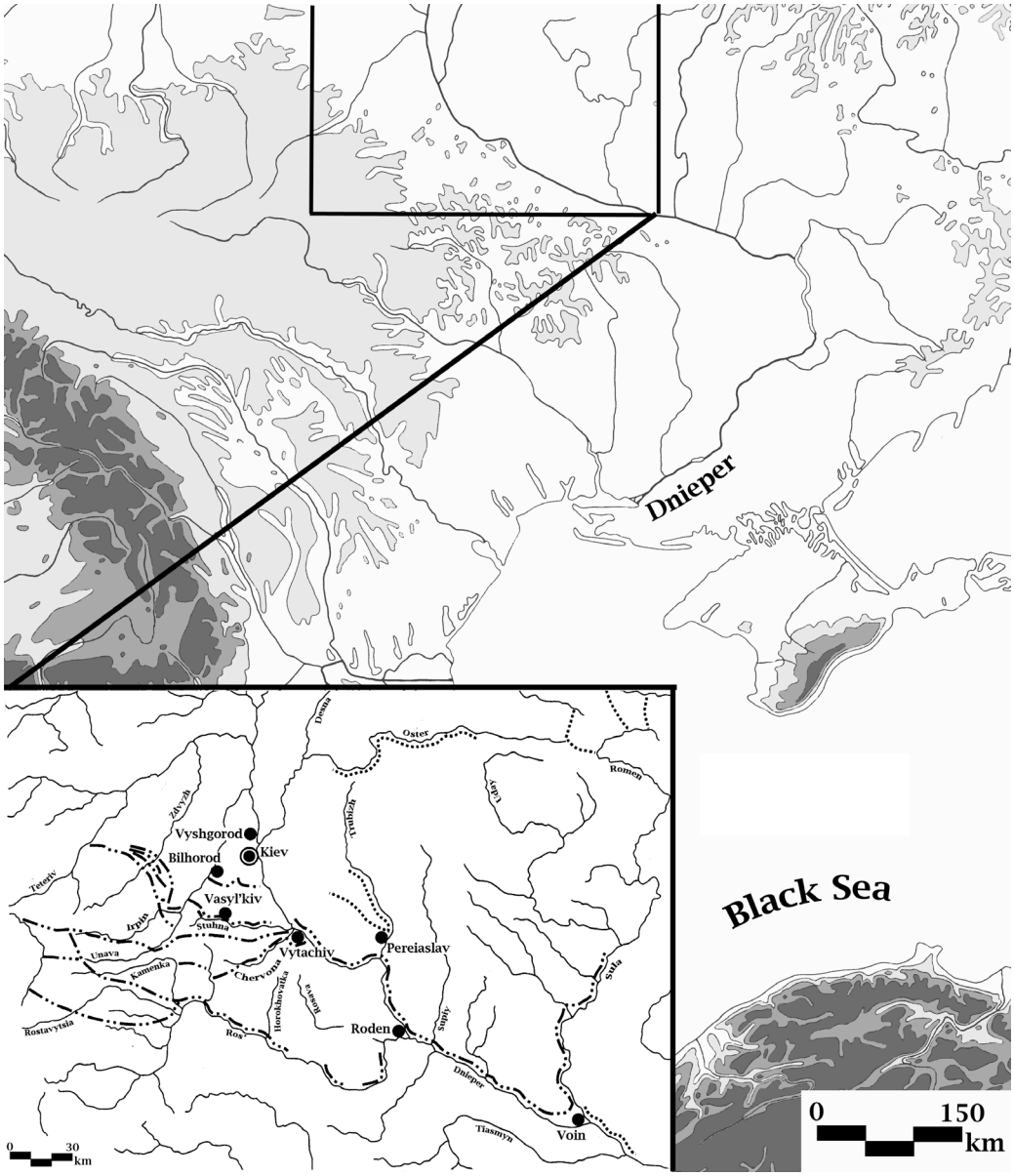

Figure 1: The Serpent Ramparts. Lines with dots indicate the ramparts identified by archaeological means, while dotted lines show remains known from the sources (Insert after Morgunov 2005: 254 fig. 1, with additions)

likely the location of Bilhorod mentioned in the annals. The longest and southernmost begins at the River Huiva, crosses the Rostavytsia and continues along the River Ros' down to its confluence with the Dnieper. On the other side of that river, in Left-Bank Ukraine, there are fewer banks, but the longest of all runs along the eastern bank of the

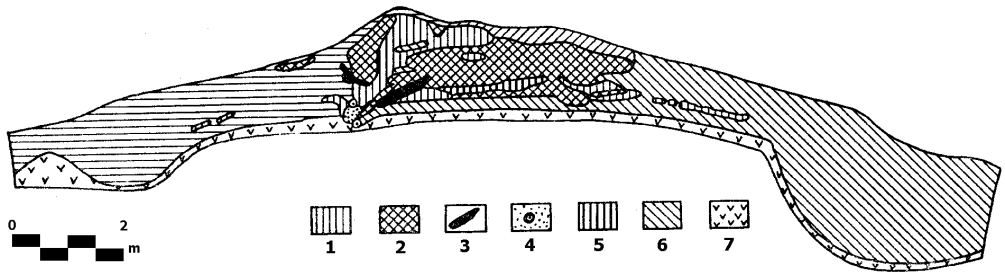

Figure 2: Eastern section of the trench through the dyke running along the left bank of the river Stuhna, near the village of Zarech'e: 1 – yellowish clay; 2 – burnt soil; 3 – charcoal; 4 – timber fragments; 5 – burnt soil mixed with charcoal; 6 – dark grey soil; 7 – virgin soil (after Kuchera 1987c: 84 fig. 45)

Dnieper, with another following the Sula upstream, on the right bank.[5] In both Right- and Left-Bank Ukraine, the earthworks follow river banks (Siverka, Bobrytsia, Stuhna, Ros', Dnieper, Sula and Irpin), in some cases linking one river to another. The longest surviving segment is in fact the one between the rivers Teteriv and Irpin – 66km (of the original 148km). This is in fact not a continuous, linear embankment, but a group of four dykes running in parallel and then joining together right before reaching the left bank of the Irpin (Kuchera 1987c: 25 fig. 9). Similarly, to the northeast from Stebliv, the dyke running along the left bank of the river Ros' is superposed by another, the so-called 'small dyke' (Kuchera 1987c: 40 fig. 18). Intersections of dykes have also been noted elsewhere (Kowalczyk 1969: 159 fig. 2; Kuchera 1987c: 44 fig. 20, 46 fig. 22). The chronological relations between those dykes have not so far been explored, even though, at least in the case of those located to the north-east, east and southeast from the city of Pereiaslav, on the left bank of the Dnieper, a date in the early Middle Ages seems probable (Kuchera 1987c: 57–60; Rozdobud'ko and Teteria 1997; Vovkodav *et al.* 2021; for a history of research on the Pereiaslav earthworks, see Vovkodav 2015).

Two kinds of ramparts may be distinguished—some with ditches to the south or southeast, others in the form of escarpments, with no ditches. The latter are found especially along the River Sula, immediately on its right bank, which suggests that the riverbed was treated as a ditch (Morgunov 1998: 34). No traces of palisades either in front or upon the dykes have so far been found. There is great variation in the size of the ramparts and the adjacent ditches. While the ramparts on the left bank of the River Stuhna has been preserved to a still impressive height of 3m (Figure 2), the one on the opposite bank barely reaches 0.75m in height (Kuchera 1987c: 22 and 36). In the former case, the rampart is 20m wide, while in the latter it is ten times narrower (2–3m). Most

[5] According to Kuchera 1987c: 63 with table 1, the dyke along the left bank of the Dnieper was initially 200km long, but the segments preserved to this day are no longer than 4km. For the fortifications along the river Sula, see also Morgunov 1998.

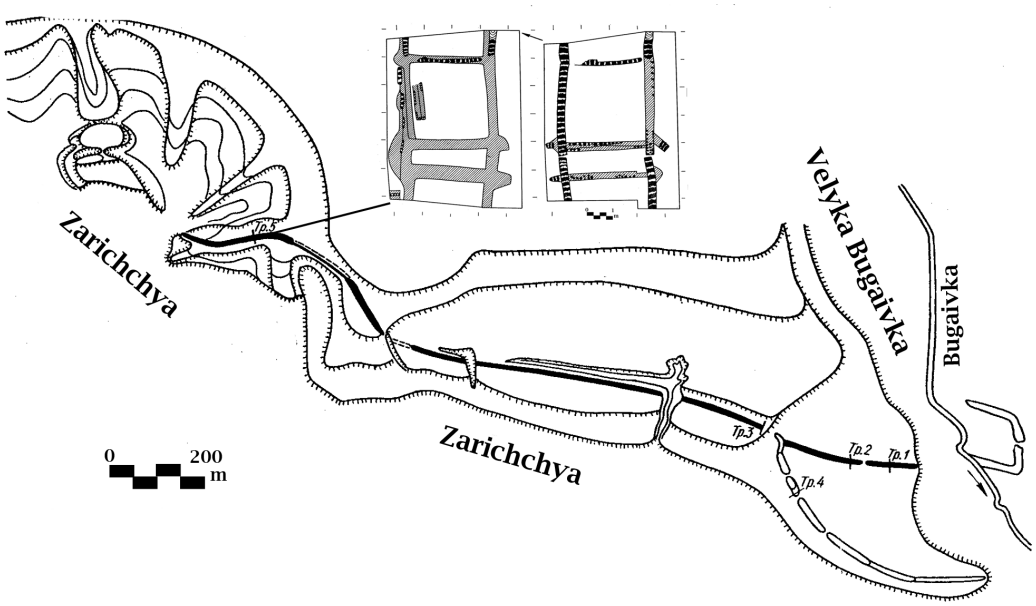

Figure 3: The eastern end of the dyke running along the left bank of the river Stuhna, with the timber frame (middle and lower sections) identified in trench 5 cut across the rampart near the village of Zarichchya. 'Tp' refers to trench, North to top (after Kuchera 1987c: 22 fig. 6 and 86 fig. 47)

other segments are still between 0.5 and 2.4m high, with variations in width between 6.5 and 14m (Kuchera 1987c: 20, 25, 33, 36, 37, 40, 41 and 54-55). Ditches are also quite different from each other. That of the northernmost dyke on the outskirts of Kiev is no more than 4m wide and as much as 0.5m deep. By contrast, the ditch of the segment between the Unava and the Irpin rivers reaches 13m in width, with a depth between 1 and 1.5m (Kuchera 1987c: 33 and 37). Similarly, the ditch of the segment running along the left bank of the Ros' is 1.5 to 2.5m wide and 0.20m deep, while the ditch of the dyke along the left bank of the Dnieper is 8.5m wide and 0.80m deep (Kuchera 1987c: 41 and 54–55). Such variation strongly suggests different strategies for the construction of the ramparts, even though it is difficult to assess chronological differences on the basis of such observations. Nonetheless, it is beyond doubt that none of those ditches was meant to be filled with water. Moreover, there is no evidence of repair or several phases of construction on any individual segment of the dykes.

That variation is not necessarily an indication of different dates results from the examination of the fabric. Kuchera's excavations revealed the internal structure of the ramparts and the method by which they were built. Only a few segments are simple earthen ramparts. For example, the excavations carried out near Pylypcha (Bila Tserkva district, region of Kiev), at the confluence of the Ros' and Rostavytsia rivers, revealed a 5 to 5.5m-wide rampart, the preserved height of which is 1.3m, with a ditch on the southern side that is 2.4m deep (Kuchera 1987c: 165 and 166 fig. 134). Another earthen

rampart is known as the 'little dyke' and runs on the left bank of the river Ros'. Both dykes are very different from the rest of the Serpent Ramparts that have an inner timber frame, the remains of which showed the exclusive use of large oaks.[6] For example, the segment along the left bank of the Stuhna River between the villages of Velyka Bugaivka and Zarichchya was examined archaeologically in 1982 in four different spots (Kuchera 1987c: 83–85 and 90; 86 fig. 47). Two of them (trenches 1 and 5) were next to strongholds built immediately next to the rampart. The traces of the timber frame beams in trench 5 were easily recognisable (Figure 3). The unit of the frame discovered in the trench was 2.8m wide and 2.8m long. To judge from the eastern section of the trench, the frame was filled with different soil than that appearing on the sides of the rampart (Kuchera 1987c: 86 fig. 48). A different kind of timber construction was identified in trenches across the rampart between the rivers Irpin and Teteriv near Lubs'ke (Kuchera 1987c: 90–92; 90–91 fig. 54; 92 fig. 55; 93 fig. 56). The 1983 excavations revealed a frame filled with fragments of timber piled on top of each other, with no particular arrangement (Figure 4). Those fragments may well have been those that resulted from the trimming of the tree trunks meant for the frame, or pieces for which the builders had no other use.[7] A trench that cut through the rampart that runs along the left bank of the Dnieper, near the village of Lipliave (across the river from Kaniv, in the Cherkasy region of Ukraine) revealed yet another kind of timber construction (Kuchera and Iura 1976: 198–202; 200 fig. 2; 201 fig. 3; 202 fig. 4; Kuchera 1987c: 130 and 131 fig. 96) (Figure 5). Here, the tree trunks were placed on top of each other, neatly arranged in layers, but without a frame. A similar chest-like structure has been identified on the right bank of the Bobrytsia near the village of Zabyr'ia (Kuchera 1987c: 132 and fig. 98), in one of the ramparts crossing the river Zdvyzh near Fasivochka (district of Makariv, in the Kiev region; Kuchera 1987c: 132–133 and 136; 133 figs. 99-100), in the rampart running along the left bank of the river Ros', near the village of Tomylivka (Bila Tserkva district, region of Kiev; Kuchera 1987c: 136-137 and 140; 137 fig. 105; 138–139 fig. 106-107), as well as in the rampart along the right bank of the Sula near the village of V'iazikov (Lubny district, region of Poltava; Kuchera 1987c: 141 and 145 fig. 114). In all cases, the chest structure consists of timber elements, often laid in the direction of the rampart, sometimes across it as well. The timber elements do not appear to have been halved, in many cases the builders used entire trees. Unfortunately, no dendrochronological analysis has ever been carried out on any of those timber remains, assuming of course that surviving samples had a sufficient number of rings.[8] On the basis of Kuchera's reconstructions (Kuchera 1987c: 123, 125–127 and 130; 155–161; 124 fig. 91; 156 fig. 127), the complex fabric of the ramparts

[6] For a broader, comparative approach to the typology of dykes, see Kuchera 1997.

[7] According to Kuchera 1987c: 93, the pile inside the timber frame included primarily fragments of oak, and a few of beech wood.

[8] The technology was certainly available at the time of the excavations, for it was applied to early medieval, timber buildings excavated in the 1970s in the Podil of Kiev (Sagaydak 1979; see also Sergeeva 2017). Judging by the photographs published in Kuchera 1987c: 92 fig. 55 and 94 figs. 57–58, the tree trunks were sufficiently large (wide) to allow for dendrochronological analysis. However, the samples from Podil were of pine, while primarily oak was used for the timber constructions of the ramparts. No dendrochronological scale for oak was available at that time and it remains a desideratum of the current research in the Ukraine.

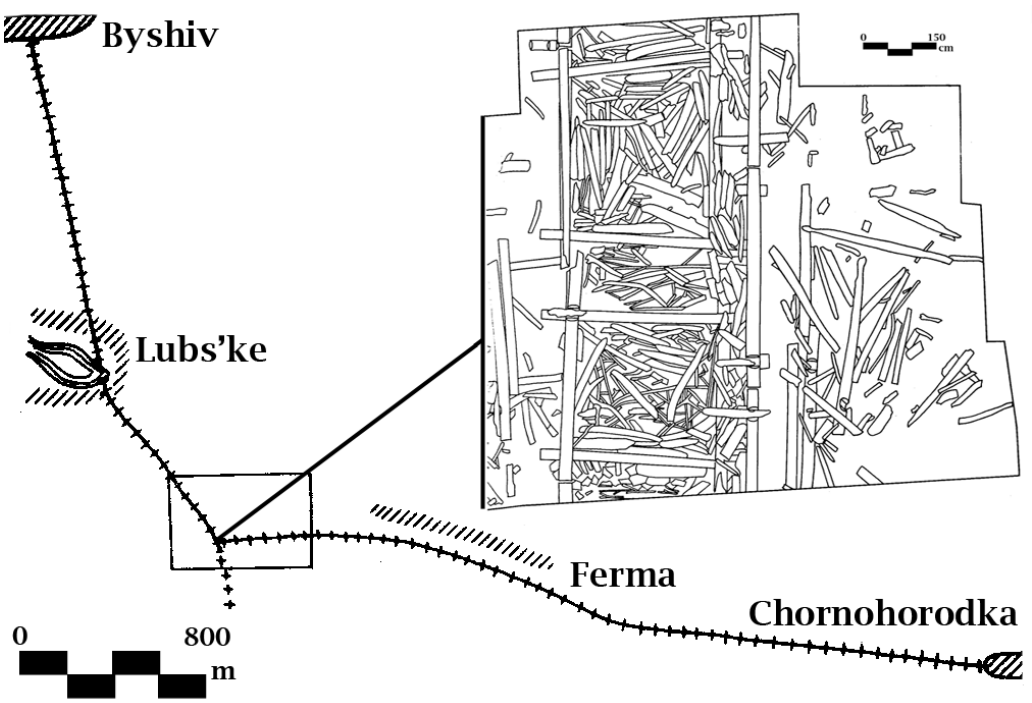

Figure 4: A detail of the timber construction of the rampart between the Zdvyzh and Irpin rivers identified in the 1983 excavations near the village of Lubs'ke, North to top (after Kuchera 1987c: 91 fig. 54)

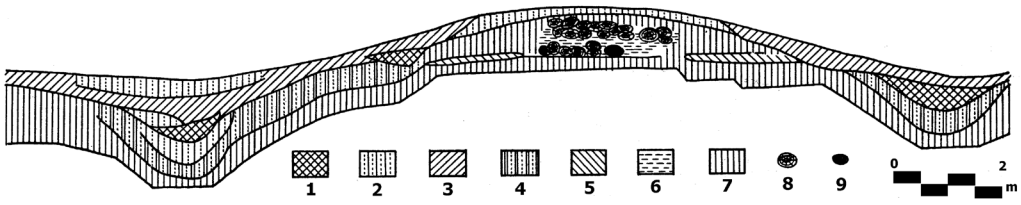

Figure 5: Northern section of the trench through the dyke and the ditch along the left bank of the river Dnieper, near the village of Lipliave: 1 – dark grey soil; 2 – light grey soil; 3 – yellowish soil with dark inclusions; 4 – black soil; 5 – yellow soil; 6 – yellow soil with grey inclusions; 7 – dark yellow soil with dark grey inclusions; 8 – tree trunks; 9 – rotten tree trunks (after Kuchera 1987c: 131 fig. 96)

seems to distinguish them fundamentally from all other, simple earthworks in the region, both prehistoric and of a later medieval age. In fact, the chest structure was believed to have been a technology borrowed from the lands to the west from Rus', such as Poland (Kuchera 1987c: 155; e.g. Żurowski 1957; Gediga 1973; Górecki and Łastowiecki 2016). Since in those lands it appears only on early medieval strongholds, that was interpreted as an indirect indication that the Serpent Ramparts were dated to the early Middle Ages as well.[9] However, the use of timber structures for the construction of ramparts has meanwhile been documented on a number of ninth- to tenth-century stronghold sites such as Liubsha (near Staraia Ladoga, Russia) and Riurikovo gorodishche (near Novgorod, Russia). Moreover, the remains of a similar structure have been found in the ditch of the stronghold at Kiev ('Vladimir's Town'), the last building period of which is dated between 970 and 990 (Nosov *et al*. 2000: 37; Riabinin and Dubashinskii 2002: 198 and 201; Petrov 2005: 122 and 130 fig. 4.5; Mikhailov 2010; see also Eremeev and Dziuba 2010: 153–158). Consequently, the idea of a West Slavic influence has now lost its popularity. Nonetheless, the new data strengthened the idea that both the timber frame and the chest structure may be used to anchor the chronology of the Serpent Ramparts to the late first and the early second millennium (for a detailed discussion, see Morgunov 2009: 38–51).

Kuchera's excavations have produced clear evidence not only to confirm that chronology, but also to narrow down the date for the construction of at least some of the most important segments. Despite the enormous potential of dendrochronology, no samples have been collected from any of the timber structures. Instead, 28 samples from different segments were radiocarbon dated between 1974 and 1983, in other words before the accelerated mass spectrometry became widely available. For various reasons, the results are utterly unreliable (Kuchera 1987c: 67 table 2). Much more trustworthy are Kuchera's stratigraphic observations. Near the village of Sushky (Kaniv district, region of Cherkasy), the dyke running along the left bank of the Dnieper cuts through a seventh-century settlement of the Pen'kivka culture, which itself superposes another, third- to fourth century settlement of the Kiev culture (Kuchera 1987c: 69 and fig. 32). In just one season of excavation (1980), O.M. Prykhodniuk and E.L. Gorokhovskii excavated six sunken-floored buildings, nine pits and a smelting furnace, all of which produced a large quantity of pottery (Prykhodniuk 1990; Prykhodniuk 1998: 148).[10] Just how long after the seventh century may the ramparts have been built results from tenth- to eleventh-century sherds of pottery thrown on a tournette and decorated with combed ornament, which were found in the rampart on the left bank of the river Irpin near the village of Lubs'ke (Kuchera 1987c: 71–72; 71 fig. 36/1–4). However, at its eastern end located

[9] Whether timber frame or chest structure, the two types of timber constructions for the Serpent Ramparts co-existed and were used even on one and the same segment, the alternation of building technique depending upon the local availability of timber (Kuchera 1987a: 128).

[10] According to Kuchera 1987a: 129, the dyke running along the right bank of the river Sula cuts through another sixth- to seventh-century settlement at its northernmost end, in Lubny. In fact, a stronghold was built behind the dyke over a *cemetery* site attributed to the Pen'kivka culture (Sukhobokov and Iurenko 1990).

between the villages of Velyka Bugaivka and Zarichchya, the dyke on the left bank of the Stuhna River cuts through an early medieval settlement, which was dated between the tenth and the thirteenth century, primarily on the basis of the pottery (Kuchera 1987c: 72). Such pottery dated to the eleventh century was found in the ditch of the rampart, which suggests an earlier, perhaps late tenth to early eleventh-century date for the ditch and the rampart. Within a trench across the dyke running between the Stuhna and the Irpin rivers, to the west from the city of Vasyl'kiv (region of Kiev), an axe dated at that exact time was found just above the basis of the rampart (Kuchera 1987a: 129; Kuchera 1987c: 73–74; 71 fig. 36/5; 74 fig. 38). Another trench across the dyke on the left bank of the Ros' near Stebliv (district of Zvenyhorodka, region of Cherkasy) showed that the rampart superposed an eleventh- to twelfth-century settlement. The dyke must have been built after the mid-twelfth century, when the settlement was abandoned, but no later than the thirteenth century (Kuchera 1987c: 77). Clearly, the Serpent Ramparts were not all built at once. In addition, not all were meant to be continuous lines of defense. Along the right bank of the River Sula, there are several gaps, most likely where marshes or flooded areas made fortification unnecessary.

According to Mykhaylo Kuchera, the Serpent Ramparts were part of a complex system of defense created in the late tenth and during the first half of the eleventh century for the protection of Kiev from attacks, primarily by nomads, from the south. They were combined with a great number of strongholds built at key positions along the ramparts or between them (Kuchera 1987c: 176–180; 78–79 fig. 44). The evidence for that is largely from written, not archaeological sources. Under the year AM 6496 (AD 988), the *Primary Chronicle* mentions that Vladimir 'founded forts on the Desna, the Oster', the Trubezh, the Sula and the Stugna', which he populated with people from the northern parts of Rus' (Karskii 1926: 121; Cross and Sherbowitz-Wetzor 1953: 119). Bilhorod was established in 991 and populated with settlers from other towns (Karskii 1926: 122; Cross and Sherbowitz-Wetzor 1953: 119). Except Bilhorod, few of those forts have been explored by archaeological means and where available, the evidence does not always confirm the coincidence in time between ramparts and strongholds (e.g. Morgunov 2003; for Bilhorod, see Blifel'd 1975 and Nepomiashchykh 2010). In fact, Kuchera's interpretation has been challenged recently by the Russian archaeologist Iurii I. Morgunov (1947–2018). On the basis of his own excavations in the valley of the Sula River, Morgunov advanced the idea that most forts post-dated ramparts. For example, at Chutovka, on the Lower Sula, an open settlement existed in the late tenth and early eleventh century right behind the dyke running on the right bank of the river. Between c. 1000 and c. 1050, the settlement shrank, and shortly before or after 1100, a fort was built above the northern end of the settlement area. Throughout the first half of the twelfth century, another settlement grew around the fort, at a time when the dyke must not have been in operation anymore (Morgunov 1996: 135 fig. 46; Morgunov 2005: 259 and 260 fig. 5). Similarly, at Mykolaivka (district of Zvenyhorodka, region of Cherkasy), the dyke running on the left bank of the Ros' River cuts through an earlier settlement located next to a fort, which is believed to have been built under Yaroslav the Wise (1019–1054). In other words, the earliest evidence on the

site is that from the open settlement, which is dated to the late tenth century (Morgunov 2005: 263). At Mykolaivka, as well as elsewhere, the building of the fort or stronghold post-dates the dyke.

According to Mykhaylo Kuchera, by the late eleventh century, in the context of the political and military changes mentioned in the Rus' annals (the so-called *Primary Chronicle*), the dykes lost their purpose and reason for existence.[11] However, some segments of the Serpent Ramparts may have become obsolete already in the mid-eleventh century (Kuchera 1987a: 130 and 132). Kuchera therefore believed that the dykes were built within the two decades separating the conversion to Christianity (988) from Bruno of Querfurt's letter to King Henry II (1008), in which the 'kingdom' of Vladimir is described as being 'enclosed on all sides with the longest and most solid of fences' (Karwasińska 1973: 99; English translation from North 2019). According to Kuchera, the latest segments were those built along the Huiva and the Ros' rivers in the 1030s (Kuchera 1987a: 131). Although disputed by some (Kowalczyk 1989), this chronology has now been accepted by both archaeologists and historians (Franklin and Shepard 1996: 170–172).[12] Iurii Morgunov believes that the two decades in Kuchera's scenario were instrumental not only for the erection of the earthworks, but also for the building of the earliest forts and the planting of large open settlements behind the dykes (Morgunov 1999). However, Morgunov shifted the moment at which the construction of the Serpent Ramparts started to an earlier date, namely during the last years of Sviatoslav's reign (945–972). According to him, the ruler of Kiev may have drawn inspiration for the dykes from the earthworks he had seen in Bulgaria during the military involvement of the Rus' in the Balkans (Morgunov 2005: 266; Morgunov 2019: 55; for the military involvement of the Rus' in the Balkans between 967 and 971, see Kryshkovskii 1952; Stokes 1962; Busetto 1996; Poppe 2007; Bonarek 2018; Ivanov 2021; for the earthworks of Bulgaria, see Rashev 1982).[13] Only 16 years separate the death of Sviatoslav at the hands of the Pechenegs in the Lower Dnieper region from the conversion of his son, Vladimir, which, according to Kuchera, is the *post terminus quem* for the Serpent Ramparts (for the death of Sviatoslav in battle with the Pechenegs, see Paroń 2005–2009). However, without the use of dendrochronology, the resolution of the dates so far proposed for the dykes is not sufficient for verifying either Morgunov's hypothesis or Kuchera's scenario.

[11] For the *Primary Chronicle* as belonging, in fact, to the annalistic genre, see Gimon and Shchavelev 2022: 453–456. The nature of the information typical for this historiographic genre is particularly important for the discussion of the role that the Serpent Ramparts played in the military events of the late tenth and early eleventh century.

[12] This may have something to do with the idea that from Vladimir to Yaroslav the Wise, the territory of the Rus' state increased considerably, particularly to the south, where the border moved more than 100 km to the banks of the Ros' and Sula rivers. Some believe that the inclusion by such means of the vast areas of the forest-steppe belt in Eastern Europe into the Rus' state dislodged the Pecheneg nomads from their summer encampments and pushed them farther to the south, which must have contributed to the increased number of raids upon Kievan Rus' (Paroń 2021: 298).

[13] Morgunov's idea directly contradicts Kuchera's interpretation of the dykes in the Ukraine as inspired by the military architecture of Central Europe. There are no timber constructions in any of the ramparts in Southeastern Europe.

It is also impossible to interpret the existing network of dykes and to distinguish between possible phases, in spite of Kuchera's otherwise plausible idea that the southernmost segments, especially those along the Ros' and the Sula rivers were built at a later date. That four parallel dykes were built across the river Zdvyzh in the direction of the river Irpin raises important questions, especially since all four are behind (to the north from) another dyke that links the left bank of the Unava to the right bank of the Teteriv, again, across the Zdvyzh. Equally enigmatic is the purpose of the dyke running from the headwaters of the Irpin to the bend of the river Ros' near present-day Bila Tserkva, especially since that rampart seems to link two pre-existing dykes, one running from the Huiva to the Dnieper, the other from the Huiva to the Ros', and then following the left bank of the latter river.[14] Problems of chronology will have to be solved first, before any interpretation of this situation can be advanced.

Why were the Serpent Ramparts built? Kuchera and Morgunov agree on the association between the dykes and the increasing number of Pecheneg raids on Kiev. The conquest and sack of Itil and subsequent collapse of Khazaria were accompanied by a sudden burst of Rus' power in the steppe lands, the most important aspect of which was the occupation of Sarkel (Beleckii 2016; Paroń 2021: 284). Kiev was attacked and sacked by the Pechenegs in 968, while the Rus' under Sviatoslav were in the Balkans. The Pechenegs attacked the city again in 990, while in 992 they came 'from the opposite side of the Dnieper, in the direction of the Sula,' before they were stopped by Vladimir's troops (Karskii 1926: 122–124; Cross and Sherbowitz-Wetzor 1953: 119–120). Four years later, however, the Pechenegs had the upper hand, for they defeated Vladimir near Vasilev (now Vasyl'kiv) on the river Stuhna (Karskii 1926: 124–127; Cross and Sherbowitz-Wetzor 1953: 121). The next year, they put Bilhorod under siege, but without success; they returned there in 1004 (Paroń 2021: 295). The traditional interpretation—that put forward by Kuchera—is that the Serpent Ramparts were a response to those raids. According to Iurii Morgunov, there is a smaller number of raids precisely during the first decade of the eleventh century, when the ramparts were about to be finished (Morgunov 2010: 62–63 and 62 fig. 1). However, if the Pechenegs could put Bilhorod under siege twice within seven years, the building of the dykes must not have been either disturbed by their attacks or very effective in stopping the raids. Moreover, the Polish historian Aleksander Paroń has recently suggested that the Pecheneg raids were a response to the building of the ramparts and other political and military measures that Vladimir had taken to encroach into the Pecheneg territory to the south (Paroń 2021: 300). If so, the ramparts were less for defense, and more to 'show-off': as a way for the Rus' ruler to impose upon the landscape in Right-Bank Ukraine the mark of his authority and to lay claims to territories until then under the control of the nomads. This interpretation echoes more recent studies that regard earthworks in early medieval Europe as means 'to anchor local identities to the ship of state because of the commitment to place and the sheer power, ancient and traditional, they revealed' (Squatriti 2002: 65; see also Squatriti 2021).

[14] Moreover, a shorter dyke was built most likely at an even later time to link the right bank of the Huiva to the 'intermediary' dyke.

Such an approach in turn raises a number of questions for which the current state of research on the Serpent Ramparts has no answers. Who built the dykes? How large was the labour force and how long did it take to finish the ramparts? Given the existence of the timber constructions, one would need to include in calculations the estimated time for felling the trees, transporting them to the building site and erecting the frame or the chest structure. What is the relation between the construction sites and the open settlements that may have existed at that same time in the vicinity? Can the former be regarded as part of the building project infrastructure, perhaps supplying food and equipment to the workers? Could the workers themselves have resided in those settlements? If Kuchera's interpretation is correct, could the timber constructions be an indication that the labour force came from the western lands that Vladimir had conquered in the early 980s (Kuczyński 1949; Koroliuk 1952; Sikora and Wołoszyn 2011)? In other words, was the labour force made up of prisoners of war (see Dzik 2022)? If so, what was the relation between those people and the population that Vladimir brought from the northern parts of Rus' in order to populate the forts he established in the region? Finally, what is the relation between the rampart running on the left bank of the river Ros' and the cemetery recently found on the opposite bank, at Ostriv (district of Rokytne, region of Kiev), with its extraordinary parallels to the Baltic milieu (Shiroukhov et al. 2019; Diachenko 2020)?[15] No new archaeological excavations have been carried out to verify Kuchera's conclusions. However, there is a great interest in using remote sensing for the verification and correction of his map of the Serpent Ramparts (Vovkodav 2015, 2016, 2018, 2020a, 2020b, 2020c, 2020d). Following Boris Rybakov (1949: 22), Kuchera dated to the early Iron Age the so-called Pereiaslav dykes on which this new technique has now been used.[16] With the map corrections made possible by remote sensing, another set of questions emerges, all linked to the role of the prehistoric earthworks in the early Middle Ages (Morgunov 2019: 137–139). Were they used or reused, and if so, for what purpose? How did the medieval builders conceptualize the spatial arrangement of the prehistoric dykes?

None of those questions can be answered without new excavations. Given the war situation in the Ukraine, however, it is unlikely that the archaeological research of the Serpent Ramparts will be a priority any time in the foreseeable future. The damage done to the ramparts is also impossible to assess, although the operations in March 2022 associated with

[15] The relation between late tenth- and early eleventh-century strongholds, ramparts and cemeteries is perhaps the most urgent task of the future research. For cemeteries, see Shcherbakivskii 1925; Motsia 1993; Bibikov 2014. For a breakthrough in research, see Borysov 2019.

[16] By the early 1980s, the issue seemed settled, given the discovery in 1966 of materials dated to the sixth century BC and attributed to Scythians (Shramko 1967: 200–201). However, salvage excavations carried out 30 years later just east of Mala Karatul' (to the southeast from Pereiaslav) brought to light ceramic materials dated to the third or fourth century and attributed to the Chernyakhov culture. Those materials were found immediately underneath the rampart linking Mala Karatul' to Strokova, to the north (Rozdobud'ko and Tereria 1997: 140). Remains of a timber construction were also found in a trial excavation of 2019 near the village of Khotsky (south of Mala Karatul'; Vovkodav *et al*. 2021). While none of those observations is conclusive, together they suggest a much later date for the Pereiaslav dykes than advanced by Rybakov, Shramko and Kuchera (Vovkodav 2022).

the Russian attempt at surrounding Kiev are said to have reached the area south of Makariv where four dykes cross the river Zdvyzh in the direction of the river Irpin (Interactive Map 2022). None of the dykes located farther to the south seems to have been affected by the military operations, which never moved too deep into Right-Bank Ukraine.

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'Cofiwn i Facsen Wledig/ We remember Macsen the Emperor:'[1] Frontiers, Romans, and Welsh Identity

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Taking as its starting point the commonly held public perspective that Wales was largely unconquered by the Romans and was indeed a focus of resistance to Roman rule, this article argues from the archaeology to demonstrate that such perceptions are misleading. Archaeological evidence demonstrates Rome certainly conquered and held Wales throughout its occupation of Britain. Furthermore, its hold on Wales was so firmly established by the second century that Rome's identity was fully stamped upon the territory and was maintained by the peoples of Wales after the end of Roman rule. The degree to which Wales was in the end Romanised is encapsulated in the post-Roman identity of the emerging Welsh kingdoms which consciously looked back to the Roman Emperor, Magnus Maximus (Macsen Wledig in Welsh) for their foundation as actual and spiritual successors to Roman power. Rather than offering resistance to Rome, it can be argued instead that notions of Roman power provided the peoples of Wales with the means to resist the rise of English power in the immediate post-Roman period.

Keywords: Frontiers, Roman *Limes*, Welsh identity, Roman Wales, Silures, Magnus Maximus

The Roman Frontier in Wales

On 6 June 2022, *The Guardian* published an article that was headed 'Romans ventured deeper into Wales than thought, road discovery shows' (Alberge 2022). The article reported the realisation that an existing stretch of unburied and well-preserved road in the Preseli Hills in Pembrokeshire was Roman in date. In the article, Dr Mark Merrony acknowledges that his recognition of the existence of the road will surprise those who believed that the Roman presence in Wales was slight, and fleeting: 'I think they'll go crazy in Wales over this because it's pushing the Roman presence much more across Pembrokeshire. There's this perception that the Romans didn't go very far in Wales, but actually they were all over Wales.' One might take this as understandable excitement following a new discovery, but the perception of the lack of penetration of the Romans into Wales is not simply a popular misconception: indeed it is still a stated position of Cadw, the Welsh heritage agency:

> The Romans under the command of Governor Aulus Platius [*sic*] arrived in Britain in AD 43 … They soon roared through southern England but hit the buffers when they reached the mountains and valleys – and fiercely unwelcoming native Celtic tribes – of Wales. It would take

[1] Iwan 1983: third stanza

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> them another 25 years or so to subjugate this troublesome mix of terrain and tribal resistance, though – unlike intensively Romanised southern and eastern Britain – Wales was never conquered in the fullest sense. Although only a partial conquest, it still left Wales with some of Britain's most revealing and significant Roman sites. (Cadw 2023)

The reality is more in agreement with Merrony's conclusion: archaeology shows that the Romans were indeed 'all over Wales'. This has been underlined by the range of new sites in often surprising locations found during the 2018 drought (Driver *et al.* 2020), but why is there a persistent misapprehension in the popular imagination that the Roman Army did not occupy the whole country? And if parts of Wales were not occupied by the Romans, then where is the Roman Frontier in Wales to be found? Clearly, we are dealing with two separate, but linked, issues here: the modern perception of a general hostility to Rome within Wales, and the concept that, because of this general hostility – the idea that Rome never really conquered all of Wales – that there must be a frontier somewhere that might demarcate those parts of Wales that were welcoming to Rome's presence and those who were hostile to it. The natural assumption today would be to place that frontier where it is now – roughly on Offa's Dyke – but this cannot have been the case in the Roman era before the dyke was constructed. As has recently been emphasised, the post-Roman date for Offa's Dyke cannot be in doubt, despite all attempts to argue otherwise (Fitzpatrick-Matthews 2019: 57) and there is no reason to suggest, or evidence for, a Roman predecessor for such a structure.

The idea of a Welsh resistance to Roman imperialism was, and is, still attractive in the eyes of those who fight against the domination of the peoples of Wales by external powers, whether these be Roman or English. However, the archaeological evidence for resistance is certainly more nuanced than this stance suggests, and caution is needed with such an argument. As Mattingly observes:

> in northern and western Britain ... the history of rule from London in more recent centuries has led to the Roman period being equated as 'more of the same'. The tendency here is to present Rome as provoking resistance and non-conformity in terms that reflect the twentieth-century rise of Scottish and Welsh nationalism and Cornish regionalism. This has the potential to present as distorted a view of history as those who uncritically assert the natural justice of Roman rule. (Mattingly 2006: 5)

Those arguing for such a position can point to some apparent academic support in that the framing by academics of the Roman archaeology of Wales since the 1950s has been through the lens of the Roman army's presence there, as epitomised by the standard work on Roman Wales: *The Roman Frontier in Wales*. As we shall see, the title, and thrust, of the work arises from tacit acceptance of Francis Haverfield's contention that Wales lay within a purported 'military' zone, which might be characterised as those parts of the island that

the Romans thought too difficult to retain, or just not worth conquering in the first place. It is an idea that no longer receives unqualified support (Hingley 2016: 13–19).

The first edition of *The Roman Frontier in Wales* was written by the then Keeper of Archaeology at the National Museum of Wales, Victor Erle Nash-Williams and published in 1954, a year before the author's untimely death (Nash-Williams 1954). It provided an overview and gazetteer of the known Roman military sites in Wales and the neighbouring regions of England. At that time there was little chronological information to differentiate between the types of sites noted, although two sites are tentatively identified as part of the initial invasion. The second edition was substantially rewritten and edited by Mike Jarrett and published in 1969 (Jarrett and Nash-Williams 1969). Jarrett was able to add many more sites, details of some of which were provided by other contributing authors, alongside a greater understanding of the chronology. The third and latest version was produced under the joint editorship of Barry Burnham and Jeffrey Davies. It developed and expanded Jarrett's format with many other authors contributing entries (including the current author; Burnham and Davies 2010). While these various editions differ, of course, in detail and especially in the number of sites discussed, their basic aim is to document the Roman military sites of Wales and the Marches, and to offer an historical overview of the development of the Roman military presence in Wales and its borderlands. While the third edition will not be the final word on the subject, it has established a detailed chronological and spatial understanding of the Roman Army's presence in Wales and the Marches. Furthermore, it also broadened out the argument to consider the wider impact of the Roman occupation of Wales, including the economic relationship between the army and the native peoples through settlement and material culture, especially through pottery and coinage.

The question of how the pattern of the Roman military presence in Wales can be considered a frontier was addressed by Nash Williams. He observed that Ostorius Scapula, the first Roman general to invade Wales, '... established a temporary frontier-line, supported by legionary camps (*castra*) taking in all the lowland zone east of the rivers Trent and Severn.' (Nash-Williams 1954: 1). Following this initial phase, he defined the final developed version of the frontier (which archaeology now dates to the Flavian period, c. AD 69–79 – see below) thus:

> [the frontier] in its main outlines took the form of a great defensive quadrilateral with the inner [eastern] angles resting on the two [*sic*] legionary fortresses [i.e. Chester and Caerleon; Wroxeter had not at that time been recognised as a legionary fortress], the outer angles [western] on major auxiliary stations at Caernarvon (*Segontium*) and Carmarthen (*Moridunum*), and the periphery and interior stiffened and strengthened with a complex of valley roads and forts centring on two large pivotal stations at Caersws and Brecon. (Nash-Williams 1954: 7)

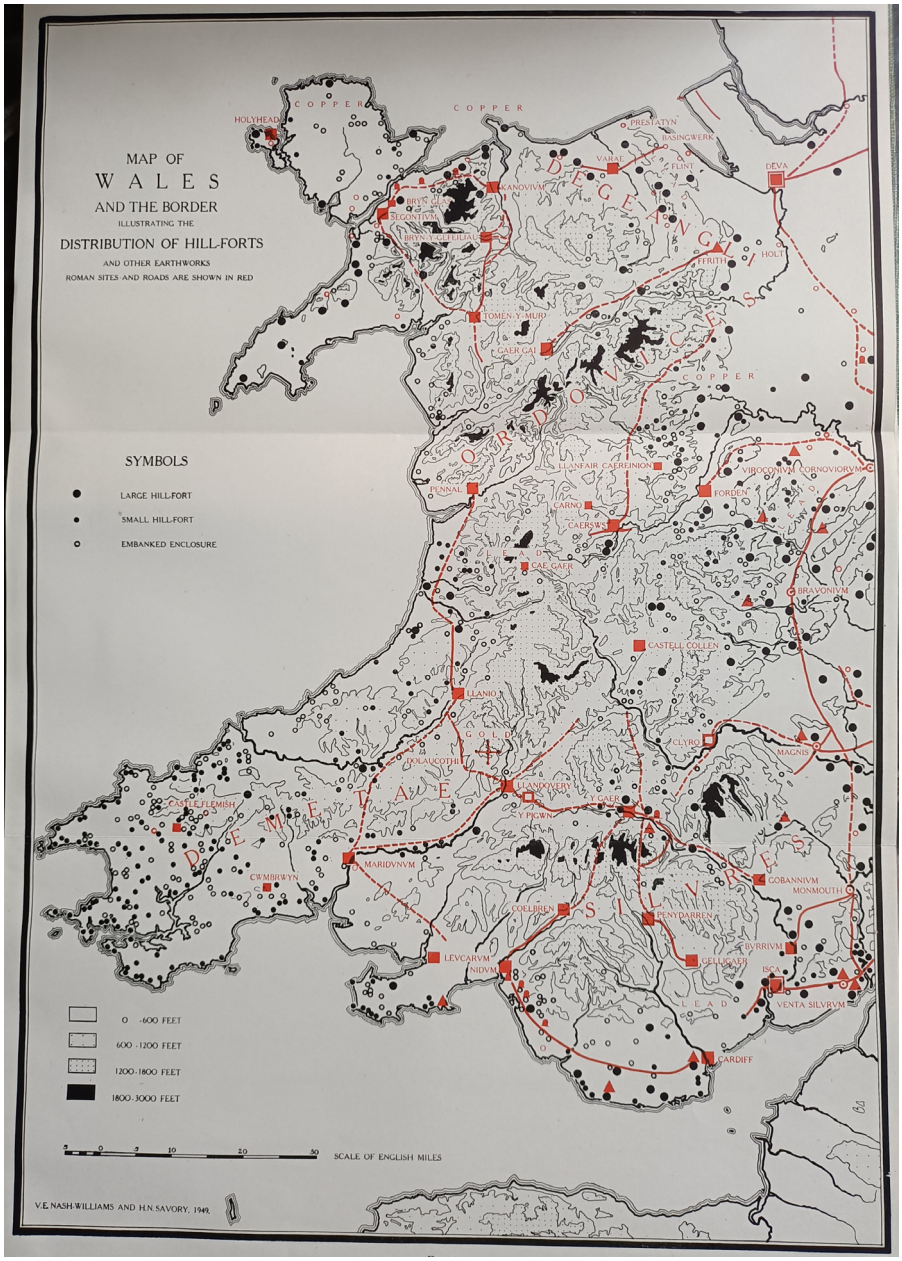


Figure 1: The Roman Frontier in Wales, as understood in 1954 (after Nash-Williams 1954, figure 62)

It is a concise and accurate delineation of the system at its most developed (Figure 1) and, as Nash-Williams points out, demonstrates a clear understanding by the Roman army of the realities of Welsh geomorphology (Nash-Williams 1954: 6). He understood that in reconstructing how the Romans interacted with Wales, it is vital to engage too with the archaeology of the area that we now call the Welsh Marches, a point reiterated

by Mike Jarrett: 'For the Roman period 'Wales' is merely a convenient geographical expression … the student of Roman Britain must take as his (*sic*) eastern boundary the line of the rivers Dee and Severn' (1969: 1). Thus, straight away our understanding of Roman Wales has to encompass parts of modern England too so there is no 'natural' frontier here at all, not even the Dee, Severn, or Wye, since these were more corridors of communication than natural barriers to east-west movement.

Peter Guest, in his contribution to the Frontiers of the Roman Empire series of booklets which outline the many components of the Frontiers of the Roman Empire World Heritage Site (WHS), a transnational WHS that seeks to recognise and protect the entire length of the frontier of the Roman Empire in all its diverse manifestations (UNESCO 2022), describes the current understanding of the nature of the Roman frontier in Wales.

> The militarised frontiers in Wales are unique in the Roman Empire. Unlike the well-known linear defensive boundaries such as Hadrian's Wall or the Antonine Wall in northern Britain, or along the Rhine and Danube rivers connecting the North and Black Seas, the forts and fortresses in western Britain formed a dynamic, and relatively short-lived, offensive frontier designed to deal with the Celtic tribes living there. Whereas later frontiers were static barriers demarcating the limits of Roman imperial authority, the frontier in Wales was a fortified zone that adapted to the changing military situation as Rome's generals fought against, defeated and pacified the hostile Britons. (Guest 2022: 37)

This concept of an 'offensive frontier' is a neat encapsulation of the Roman military *modus operandi* from roughly the late Republic (after c. 202 BC) to the end of the reign of Trajan (r. AD 98–117). It is a form of 'attack in depth', an aggressive absorption of territory from a secure line of advance in which corridors of attacking troops advance into enemy territory, fortifying the lines of attack as they go through the construction of forts linked by roads to create a network. This network is then used to secure the next line of advance so that the process can continue when the freshly conquered territory is secured. At the core of this approach lay a concept that Roman power was infinite in time and space – *imperium sine fine* as the Augustan poet Vergil put it (*Aeneid* Book 1: 278–279). What this often meant in practice was the identification of a territory to seize, usually under the pretext of dealing with a perceived or actual threat to Roman power offered by an individual or a tribe(s), the invasion of that territory, often using overwhelming force, then the occupation of the newly acquired territory through a network of fortresses and forts. The newly pacified lands could then be gradually settled permanently through the creation of towns, often located on redundant military sites and populated by veterans whose presence would ensure security and an increasing Roman identity for the territory. The process is described by Cornelius Tacitus, writing in the early second century about a pocket of land, known as the *agri decumates*, that lay

between the Rhine and Danube: 'The most useless Gauls, made audacious by poverty, occupied these lands of precarious ownership; subsequently a road was constructed, garrisons were moved forward, and they are now reckoned an outlying recess of the empire and part of the province' (Tacitus *Germania* 29: 4). In its earliest manifestations, in Gaul and Spain, the policy worked well, creating Romanised communities loyal to the idea of Empire; in Britain and Germany the idea worked less smoothly, or (in Germany beyond the Rhine) hardly at all.

Guest's 'offensive frontier' is recognition that, at the time of the invasion and conquest of Britain, Roman authorities had no concept of a fixed frontier in the modern sense of the word. The idea that one could, and should, construct a linear barrier or its equivalent is one that gradually developed from the time of Domitian (r. AD 81–96) before finding its fullest, and innovative, expression in structures like Hadrian's Wall, only a generation later than Domitian. The first expression of these developments in Britain was a series of watch towers along the Gask Ridge in Scotland built in Domitian's reign, overlooking a road connecting forts where the garrisons employed in holding and policing territory were located. A second example is the Trajanic Stanegate System, a series of forts (including Vindolanda) built around AD 105 and strung at periodic intervals along an east–west route which formed an immediate precursor to Hadrian's Wall and lay just to the south of its line (Breeze and Dobson 2000: 16–24; Hodgson 2017: 33–37). The connecting road was termed by the Romans a *limes* (pl. *limites*) differentiating it from *via*, the more usual word for a road. *Limes* has thus been adopted as the modern term to describe frontier systems in the Roman world, although it is worth stressing that it is not a term that the Romans themselves used to describe the barriers that divided the Empire from *Barbaricum* (Isaacs 1988). The Gask Ridge and Stanegate systems were not frontiers: they were early-warning systems. A trip-wire to enable the army to react to an actual or perceived threat developing in hostile territory so that a force attempting to attack Roman-controlled territory could be dealt with swiftly. The recognition of these 'systems' is a modern rationalisation of the evidence; there is no evidence that the Romans themselves had a name for these systems and certainly they did not call them 'frontiers' in the modern concept of the word. They were, however, certainly aware of lines demarcating territory in the sense of boundaries that separated peoples – the concept of 'us' and 'them' – but that is not the same as a defended frontier.

Thus, in some senses though Nash-Williams's understanding of the Roman frontier in Wales can be considered incorrect in that, as already noted, the Romans at the time of the conquest of Wales had no idea of a frontier, their approach to conquering Wales was just that: the implementation of the usual policy when dealing with territory that needed to be brought under Roman control. It is unlikely that they thought in terms of finding somewhere to halt their conquest permanently or considered excluding those parts of Wales that were only lightly inhabited or had difficult terrain. In short, it is difficult to find anything innovative in the Roman commanders' approach to conquering Wales, unlike (for example) Hadrian's revolutionary approach in northern Britain, although

one can acknowledge that the Roman army was, by this time, masters of the techniques of subjugation. This is hardly surprising given that exactly the same Emperors who implemented the policy in Wales, Vespasian and Titus, were both familiar with and had campaigned in Britain (Birley 2005: 232–233, 279–280), and had just vanquished the even more intractable peoples of, and hostile environment in, Judea (Faulkner 2011).

The mis-match in modern understandings of frontiers, and retrospective readings of Roman history, is manifest in the now-discredited idea of the 'Fosse Way Frontier' (Millett 1990: 55). This postulated that the establishment of the Fosse Way, which runs from Exeter to the Humber Estuary and was thus one of the primary routes of Britain, had been conceived from the beginning of the invasion as a frontier delimiting the part of Britain that Rome knew and desired to conquer from that part of the British Isles that was largely highland and thus not worth conquering (Webster 1958). The frontier was suggested to comprise the Fosse Way as a *limes* allowing the rapid movement of the army along its route and in effect police the border of Empire, while the forts and fortresses scattered along its length offered the tactical support for such a role (Webster 1980: 123; Webster 1981: 21). This argument fails to make sense at two levels. First, as already noted, is that at this stage of Roman imperial thinking there was no concept of a frontier in the sense of a line defining the limit of Roman power. Second, it fails to work as an idea because there are at least one, and possibly two fortresses west of this line in the 40s AD – at Gloucester and possibly Wroxeter too (Hoffmann 2013: 78–79). For the Fosse Way to be a frontier, the fortresses should have been at the very least on its line or some distance behind it, part of the logistic support for an active campaign, as Nash-Williams had already argued. As Shotter has commented '[the Fosse Way Frontier] was not a statement of the limit of Roman authority, but, at most, a line of lateral communication which might serve as a convenient 'jumping off' point for further advance…' (Shotter 1996: 18). More interesting to my mind is the question of why the idea of a Fosse Way Frontier suggested itself in the first place to its author, Graham Webster. The idea of a linear but fluid defence designed to hold up attack through the use of strongpoints (in this case Roman forts strung along the Fosse Way) is reminiscent of the GHQ Stop Lines put in place to defend Britain in the case of invasion during World War Two (Kolonko 2015; Jones *et al.* 2008: 43–60). The point is worth considering because Graham Webster was employed as a military engineer during that war, although his known activity was largely in constructing airfields (Henig and Soffe 2002: 3). Given his role, he may well have been aware of the defence lines quietly established between June and August 1940, when the reality of invasion was at its gravest. Such defensive strategies could well have been in his mind when thinking about how the 'Fosse-Way Frontier' developed, but it is undoubtedly an anachronistic rationalisation of the fluid process of conquest.

Bearing these points in mind, we can now return to our current understanding of the Roman conquest of Wales. As noted, the Roman approach followed a normal pattern of Roman aggressive expansion (Guest's 'offensive frontier'). Importantly there is no evidence that once the Romans had landed on the southern coast of Britain that they

intended to stop until they had conquered the whole island. Naturally, the conquest took time and thus after each year's campaign, there were bound to be lines of advance that were consolidated at the end of each season. This was the situation that had been reached towards the end of the 40s when the advance into Wales was contemplated. The accumulation of evidence in the seventy years since Nash-Williams's work, and notably the contribution of aerial photography and detailed analysis of the numismatic and ceramic evidence from archaeology and the portable antiquities scheme, means that we now have a much more nuanced understanding of the Roman pattern of conquest in Wales. These knowledge gains are shown most clearly in the maps produced in the third edition of the *Frontiers in Wales* volume outlining the chronological development of Roman military control of Wales (Burnham and Davies 2010: 23–66).

Their first map demonstrates the situation in the pre-Flavian period (AD 43–68) with fortresses at Gloucester, Usk, and Wroxeter providing the support for a screen of campaign fortresses and forts in eastern Wales but with an emphasis on the south-east where the rebellious tribe of the Silures was located and whose campaign against Rome lasted until AD 74 (Figure 2a). Immediately after this positioning, the initial Flavian period (AD 70–80) saw the establishment of a new fortress at Chester (likely replacing an earlier fort in the same location; Mason 2012: 35–36; Burnham and Davies 2010: 172) alongside a dense network of forts connected by roads across the whole of Wales (Figure 2b). Classically, the forts control the valleys running through the highlands and are closely spaced, averaging about 30km/20 miles – a day's march apart – along the well-constructed network of roads. This pattern is broadly maintained for the next 40 years, c. AD 90–130, but then in the Hadrianic period the dense network is thinned to create broadly a cluster of forts in the south, in the centre, and in the north (Figure 3a). This network is thinned even further after AD 150 so that the forts are largely concentrated in the highlands of central Wales to control the routes into the more difficult terrain, and to hold the north coast and the economically vital island of Anglesey (Figure 3b). This reduced network is maintained for over two centuries, until the 370s (Figure 4b). After that time, the lack of reliable Roman coin dates and poor evidence for military activity in Wales suggests that the Roman army had officially ceased to exist as an entity in Wales (although this does not exclude any military replacement force under local control). In sum, for the earlier period we see a standard pattern for Roman conquest and control of any territory acquired by the Empire. The establishment of a baseline starting point, the use of that to rapidly overwhelm the region, and then the maintenance of a military presence for as long as necessary to quell any possibility of rebellion.

If we accept, therefore, that the conquest of Wales was territorially completed by the 80s and that the Roman army deemed Wales to be so completely subdued by c. 130 that its garrison could largely be removed, we can conclude that Wales was pacified and no linear frontier in Wales was necessary. It is a conclusion accepted by Burnham and Davies: 'That the majority of forts could be abandoned is surely indicative of the acceptance of Roman rule, however truculently.' (Burnham and Davies 2010: 54). This seems a paradoxical conclusion

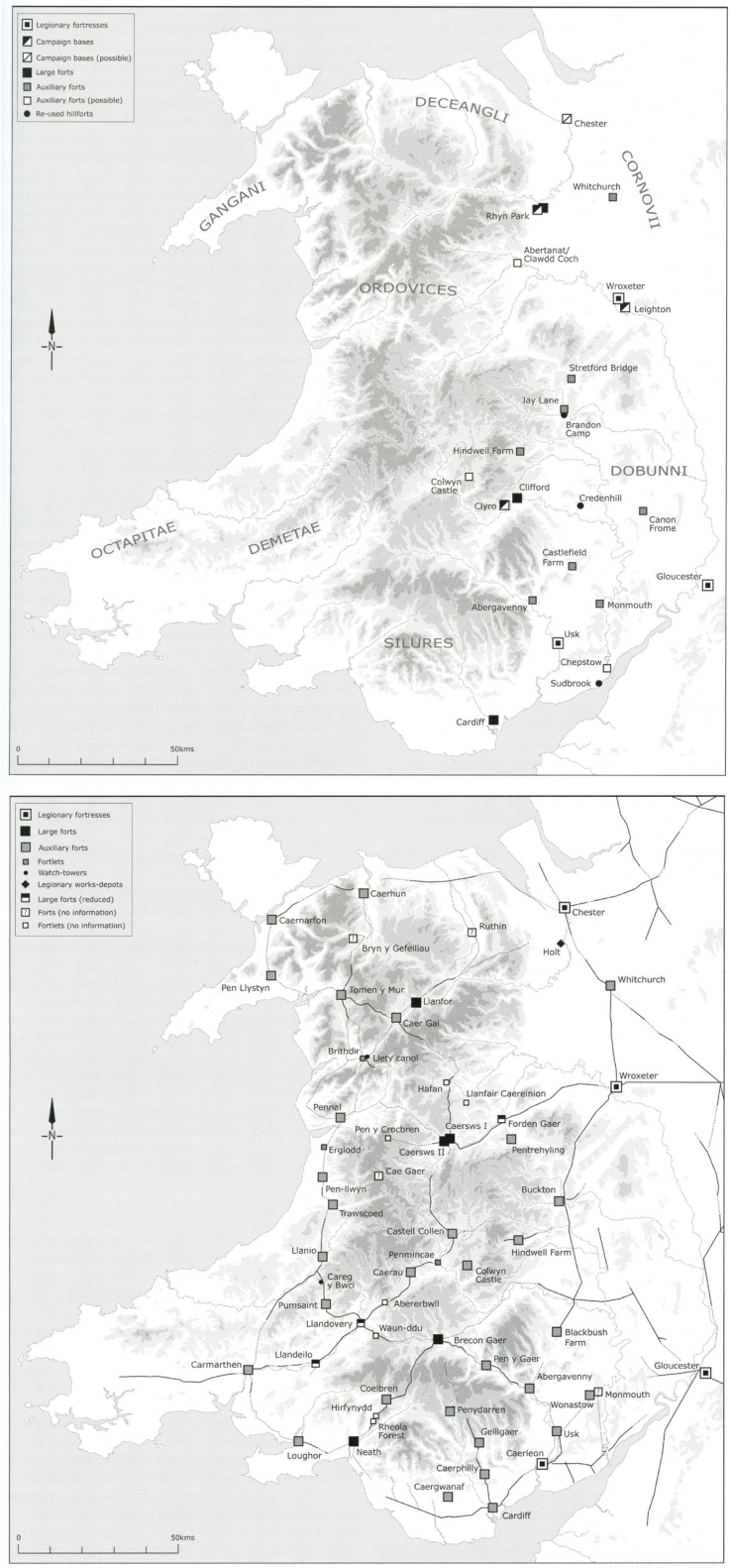


Figure 2: Roman military sites in Wales. 2a (above): Pre-Flavian; 2b (below): AD 70–80; (after Burnham and Davies 2010, figures 2.3, 2.4)

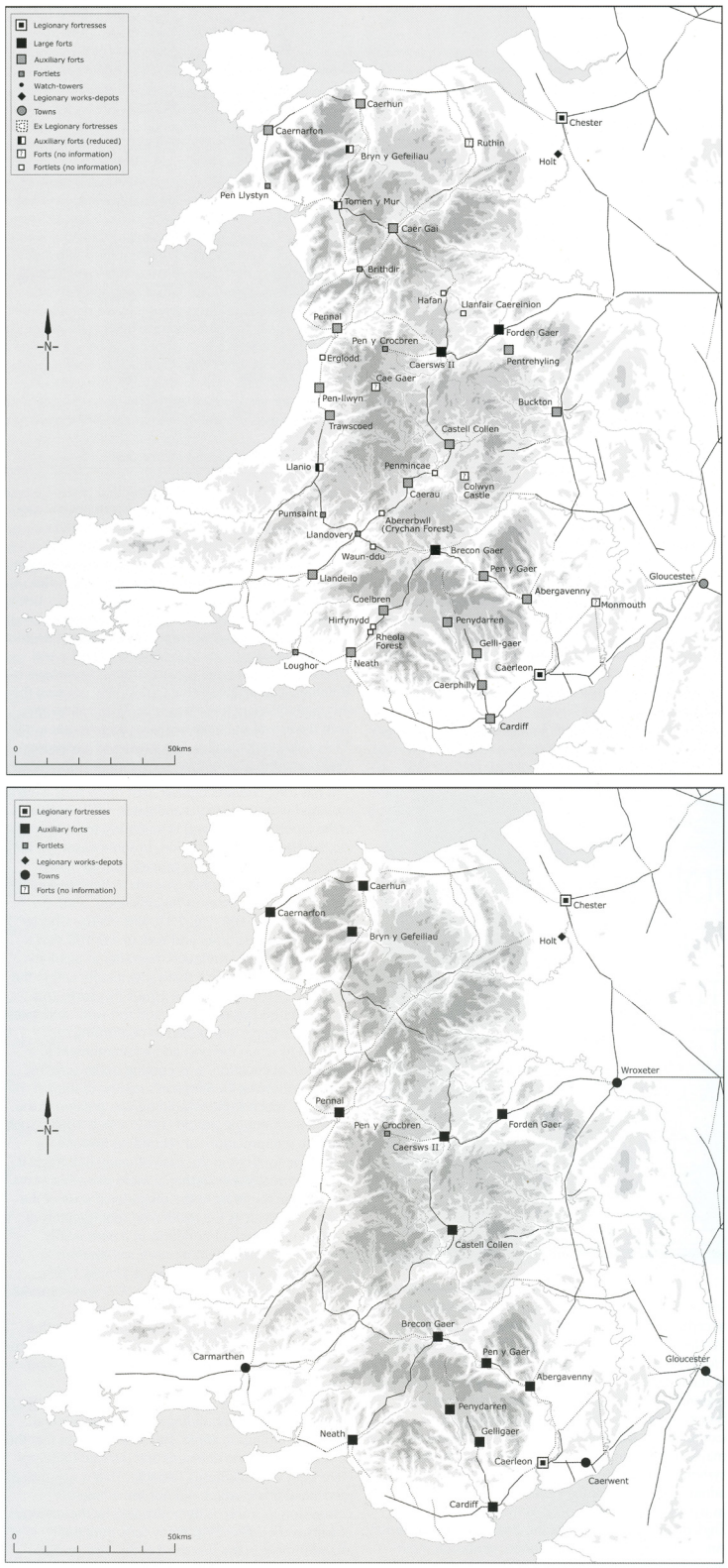
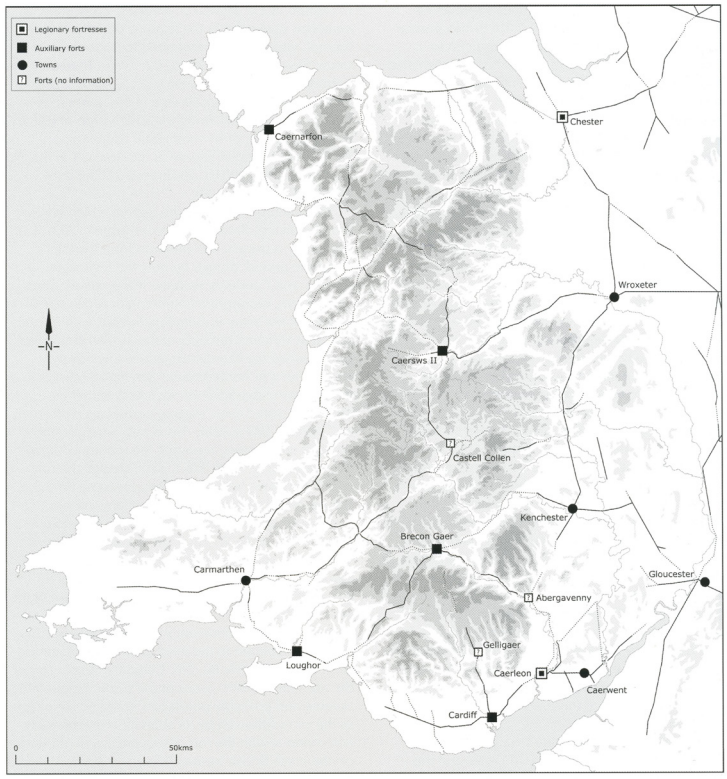


Figure 3: Roman military sites in Wales. 3a (above): AD 110–130; 3b (below): AD 130–150 (after Burnham and Davies 2010, figures 2.8, 2.12)



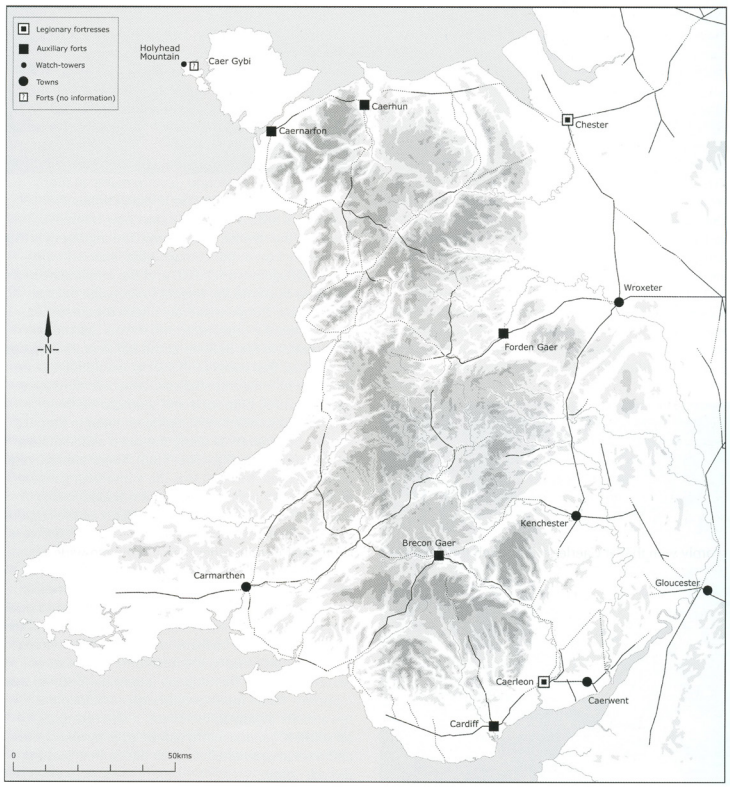


Figure 4: Roman military sites in Wales. 4a (above): AD 260–286; 4b (below): AD 364–370 (after Burnham and Davies 2010, figures 2.16, 2.20).

given that we have seen evidence for military occupation throughout the Roman period. The paradox is more apparent than real, however. A Roman military presence does not mean that the population was constantly rebellious. It was rather that the army's role became that of deterring attacks on the established civilian settlements, as well as providing the equivalent of a police force. In other words, in the absence of urban settlements, the forts provided the essential minimum of state control for administrative and judicial purposes and continued to do so until the demise of Roman power in Britain.

Paradoxically, during the third century, the need for a frontier to protect the by-then settled territory of Roman Wales emerged. It is made manifest in a number of new forts founded on the coast during the period of unrest and upheavals of the mid to late third century, most obviously at Cardiff, but also at *Segontium* (Caernarfon) where there was an internal reorganisation of the fort (Burnham and Davies 2010: 223, 230–233). Their location shows clearly that the threat was not from the population of Roman Wales, however truculent they were, but from external forces. Given the orientation of the Welsh coast, this can only mean a threat of attack or raiding from the peoples of Ireland with presumed targets of the lands adjacent to the coast, and specifically directed at the estuaries of the Severn, Dee and Mersey (Burnham and Davies 2010, 57; Figure 4a). This point is emphasised by further developments in the fourth century that saw the addition the fort of Caer Gybi on Anglesey that opened out directly to the sea implying a naval function, (Burnham and Davies 2010: 216–217) and the construction of Hen Waliau adjacent to *Segontium* that may have been a fortified stores compound (Burnham and Davies 2010: 233). The further provision for a series of coastal watchtowers along the coast of north Wales as far as the Dee estuary reinforce the sense of an early warning system reminiscent of the intentions implied by the Gask Ridge system of two centuries earlier (Mason 2012: 230–231; Hopewell 2018: 320–321). These fortifications are not mentioned in the late Roman document, the *Notitia Dignitatum*, the relevant section of that document likely being lost, but were presumably under a command commensurate with the contemporary east coast forts known as the Saxon Shore (White 2017). The existence of these forts, and their clear maritime orientation emphasises once more that the Romans certainly believed that all of Wales was under their control and, moreover, that it was worthy of protection.

The Romanisation of Wales?

While a fully nuanced understanding of the Roman conquest of Wales has only been readily available for just over a decade, the evidence of the Roman Army's presence has been obvious ever since antiquarians understood what a Roman fort looked like on the ground. In the uplands of Snowdonia or the Brecon Beacons, substantial earthworks of Roman forts survive in excellent condition as do the lines of Roman roads. At Cardiff, Colwyn Castle, and Tomen y Mur, Norman castles were erected within the circuits of these earthworks, a recognition in a later age of the value and strength of these earlier sites (Burnham and Davies 2010: 230–233, 241–242, 282–286). It is difficult, therefore, to understand why there might be a popular public perception that the Romans never

completely conquered Wales. Three reasons for this might be identified. The first is that the extant Roman sources give a strong prominence to the resistance to the conquest of Wales in the first century and inevitably that gives an impression of a longer and more sustained resistance than was actually the case. The second lies in a century-long portrayal of Britain as being divided into 'civilian' and 'military' zones (Haverfield 1912: 20 and fig 1; Millett 1990: 65) which until recently framed much of the traditional academic debate about Roman Britain. As we have seen, however, the military presence in Wales does not necessarily mean perpetual warfare, or rebellion. A third reason can also be suggested, one more rooted in debates about modern Wales and its people than an historical reality. The idea that native peoples accepted Roman rule is perhaps distasteful to modern thinking. Magnifying the early resistance of the native peoples to Rome offers a different and more palatable narrative for those in Wales who are conscious of and experience recent English domination and influence on Welsh politics, culture, and society over recent centuries and who wish to resist this legacy in Wales today. This reflects the ideas expressed in the song *Yma o Hyd*, quoted in the title, and the opening discussion of this article since it fits in with notions of mutual antagonism, imagined or real, between the English and Welsh nations, most obviously manifest in sport.

The focus in the written sources on resistance amongst first the *Silures* in south Wales and then the *Ordovices* in north-western Wales is well known and does not require detailed rehearsing here (excellent and brief summaries are provided by Nash-Williams (1954: 1–2) and more recently by Burnham and Davies (2010: 37–38)). The principal accounts derive from the works of Tacitus, writing at the end of the first century and into the early part of the second (Hoffmann 2013: 74–87). His works do not survive entire, and some lacunae are imperfectly filled by a later historian, Dio Cassius, writing a century after Tacitus and thus nearly 150 years after the events discussed. In the past, Tacitus' works have been treated as powerful, and accurate, testimony for Rome's actions in the invasion and conquest of Britain. So much so, that (for instance) considerable time and effort has been devoted to identifying the locations of battles based on matching archaeological discoveries and topographic detail to his prose descriptions (Jones 1991; Webster 1978: 111–112). This despite Henderson's caution that 'such efforts are almost always so subjective as to be valueless and are founded on the mistaken assumption that Tacitus was writing with a painterly concern for accuracy of detail.' (Henderson 1984: 25). The point has been made that Tacitus' writings are, indeed, so powerful that the temptation to use them to support particular interpretations of landscape and archaeology can lead to a largely circular argument (Hanson 1987: 20–21).

In this respect it is worth bearing in mind some caveats in considering Tacitus' evidence. While there is no need for him to have necessarily distorted the facts of the campaign, he did not witness the events he portrays, he never visited Britain, and he had ulterior motives in how he portrayed the people involved. Tacitus was above all concerned in his writings to show how tyrannical actions by emperors (by which he largely meant attacks on the senatorial class) had affected Rome's rule and the progress of its

conquests (Ogilvie and Richmond 1967). In this he was himself explicit: 'My conception of the first duty of the historian is to ensure that merit (*virtuus*) shall not lack its record and to hold out the reprobation of posterity to evil words and deeds' (*Annals* 3,65). Second, he wished to magnify the image of his father-in-law, Gn. Julius Agricola, who was governor in Britain from AD 77–84. The work *Agricola* is often called a biography: it is in fact a hagiography. Tacitus is again frank about his intentions: 'This book, which sets out to honour my father-in-law Agricola, will be commended, or at least pardoned, for the loyal affection to which it bears witness.' (*Ag.* 3). Thus, while we can be certain enough of the active resistance by the *Silures* over a period of three decades to the Roman invading force, and of the fact that they inflicted severe defeats at times, one reason why Tacitus tells us of Scapula's actions is to burnish his reputation as an honest and hard-working governor. One, indeed, who worked so hard that he died in office, 'worn out by his exertions' (*Ag.* 39.3). Despite this, his son, who is also mentioned by Tacitus in this campaign, was in the end forced to commit suicide by Nero – an honourable man forced to die by an act of tyranny (Birley 2005: 25–31). Equally telling is Tacitus' account of the governor in place before Agricola, Julius Frontinus. He is accorded only one sentence in Tacitus' *Agricola* (17.2) which at least credits him with the final defeat of the *Silures*, but no mention is made of the fact that he also campaigned with vigour in north Wales and northern Britain, founding the fortress at Chester, for example, as archaeology attests (Birley 2005: 68–70). But to magnify his account of Frontinus would be to diminish the actions of Agricola so the former's work is passed over in relative silence allowing Tacitus to amplify Agricola's impact on Britain.

My wider point here, however, is that the story of the heroic and sustained resistance of the *Silures* against Rome, and of the dramatic image of chanting druids defiantly resisting the massed Roman army on Anglesey's shore just before being massacred, hides a bigger truth. Once these episodes of resistance were broken, we do not hear again of the rebellious nature of the Welsh tribes against Roman rule. That might just be a question of the non-survival of historic accounts of the Roman occupation of Britain, but the archaeology shows a pattern of declining military engagement in Wales, as we have already seen. If there had been continuing, and determined, resistance to Rome we would have seen the evidence for this in the deployment of the army and the maintenance of the established network of forts. In fact, the more likely response to continuing resistance would have been an aggressive and devastating campaign by the Roman army, for which we have no evidence. The fact is that Rome scaled back its military establishments after about AD 130, and those troops that remained could be characterised as being there more to police than to pacify.

The problem with the Tacitean narrative is that because it is effectively the only written history we have for Roman Wales, it has been put front and centre of how Roman Wales is portrayed so that the thirty-year resistance against Rome shapes a narrative of resistance, albeit a largely passive one, that lasted three hundred years (Russell and Laycock 2011: 98–101; Cadw 2023). Thus, despite the earlier resistance of the tribe, the

successful development within Silurian territory of its civitas capital, at Caerwent (*Venta Silurum*), complete with forum and associated senate chamber, temples, bath house, and town houses encircled in the later Empire by still-impressive town walls is an inconvenient truth in the face of dismissals that Caerwent was 'never a successful town, covering an area of less than 18ha' while Carmarthen, the civitas capital of the *Demetae*, is caricatured as 'having the air of a pioneer shanty-town of the American mid-West' (Russell and Laycock 2011: 100). While Roman-period Carmarthen was indeed a small town, as it is still today a modest-sized conurbation, it nonetheless had its accoutrements of an amphitheatre and bath house and, more tellingly, was accorded the status of a civitas capital (Arnold and Davies 2000: 45–57). In the Roman Empire, the appearance and size of an urban centre were not the critical factors: its legal status was everything, as the Roman geographer Pausanias makes clear in describing the Greek city Panopeus:

> It is twenty stades from Chaeronea to Panopeus, a city of the Phocians, if anyone could give the name of 'city' even to these people, who have no official building for magistrates, no gymnasium, no theatre, no market place [i.e. agora or forum], no water collected in a fountain, but live in hovels, which most resemble mountain huts, here on the edge of the ravine. But nonetheless they have territory marked by boundaries with their neighbours and send representatives to the common council of the Phocians. (Pausanias *Description of Greece* 10.4.1)

Thus, Carmarthen's status made it as much a city as the even tinier St David's is today, and for the same sort of reason. Similarly, the small area occupied by Caerwent is not necessarily a comment on its success or otherwise – the civitas capital of the Iceni at Caistor-by-Norwich is even smaller, at 14ha (Millett 1990: table 6.4). Indeed, so Romanised had the *Silures* become by the early third century that they were paying for and erecting a statue to the local legionary legate based at Caerleon who had just been promoted by the Emperor to govern the province of *Gallia Lugdunensis* (RIB 311; Tomlin 2018: 243–244, 274–279).

This false narrative of continual resistance by the tribes is also used as part-explanation for the lack of Romanisation over much of Wales. While it is widely acknowledged that in southern Wales, within the territory of the *Silures* especially, there was a high degree of Romanised settlements spreading from the Gwent levels to the foothills of the Brecon Beacons and, to a degree, west to Carmarthen (Arnold and Davies 2000: 73–87), elsewhere in Wales there is a perceived failure of Roman settlement, and in particular a lack of villas and other Romanised buildings. Such conclusions fail to take into account the more recent discoveries made under the provision for archaeology as part of the modern planning process and notably the contribution made by the Portable Antiquities Scheme (Brindle 2016: 363; Reynolds 2022: 59–78). It also neglects the evidence for substantial civilian settlements (*vici*) outside many of the forts found all over Wales that demonstrate the active engagement of the people with the Roman presence (Figure 5; Burnham 2017).

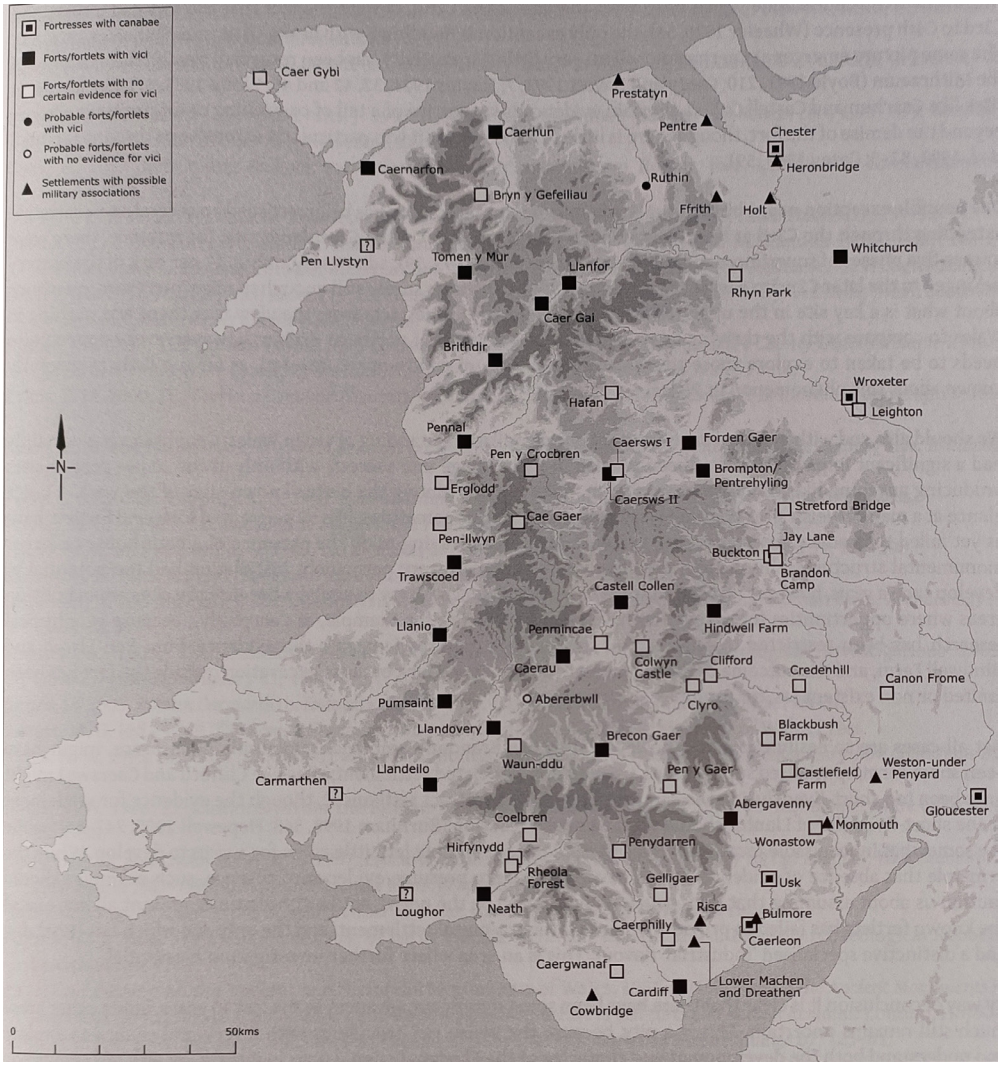


Figure 5: Distribution map of known *canabae* and *vici* (after Burnham 2017, figure 5)

The interpretation of this perceived lack of Roman settlement relies heavily on the highly influential characterisation of Roman Britain by Francis Haverfield into a 'Civil' south and east of Britain and a 'Military' west and north (Haverfield 1912 figure 1; Rippon *et al.* 2015: 19–30), largely reflecting the division between lowland and highland zones of Britain that was also recognised by Sir Cyril Fox in his later work *The Personality of Britain* (Fox 1932). As has been noted, 'some see this [absence of Roman-style settlements] as a mark of native resistance to Roman blandishments' (Arnold and Davies 2000: 65) but more nuanced explanations are surely called for.

The first and most obvious point to make is that Wales is not a unity in terms of its geomorphology and terrain; some areas are more suited to arable, others to a pastoral

economy whilst even today, everyone is aware of just how difficult it is, say, to travel from north to south Wales, and vice versa (Rippon *et al.* 2015: 294–304, figure 11.1). This has a direct impact on how people live and use landscapes regardless of the overarching political system. Pastoralists require more land and tend towards more isolated, small communities with less surplus; arable agriculture is more encouraging of denser settlement and regular surplus value that is convertible into, for example, prestige building (Sylvester 1969). We can see this in the variety of agricultural production and settlement in pre-Roman Wales, and it continues through the Roman period and beyond. Also, the difficulty of movement through this landscape will naturally lead, in times before modern systems of communication, to isolated communities perhaps resistant to change. Despite these caveats, archaeology is now finding increasing evidence for Romanised settlements, both rural and urban, in the so-called 'military' areas of Wales. These include a villa at Abermagwr near Aberystwyth (Davies and Driver 2018; Brindle 2016, fig. 11.18) and a second at Rossett near Wrexham (Pudney and Grenter 2021). Further examples include small-scale urban settlements at Plas Coch, Wrexham (Jones 2011) and Tai Cochion on Anglesey (Hopewell 2016; Hopewell 2018 Brindle 2016, fig. 11.4) as well as rectilinear buildings on many settlements including at remote locations on Graeanog Ridge in the Llŷn peninsula and at Din Lligwy on Anglesey (Hogg 1969; White 2007: 136–141; Reynolds 2022, 77, fig.6.16). Thus, the model of a military and civilian division in Wales seems simplistic at best.

How else can we explain the 'failure' of Romanisation within Wales if we accept that the population was not hostile to Roman power? This is a question that we had to answer in the Wroxeter Hinterland Project too, in a landscape that is not too dissimilar to that in Wales and with a similar cultural background to the peoples of Wales. Our answer to that conundrum was two-fold, and I would argue is transferable to the broadly similar situation in Wales (Gaffney and White 2007: 279–286). The first is that 'Romanisation' itself is a modern concept – it was never a policy implemented by the Romans who were in fact largely indifferent to whether people adopted Roman customs and ways of life or not. The second point follows on from the first. If peoples did not engage with Roman culture or beliefs, that was not necessarily hostility: it could well be indifference born of a lack of necessity.

It is worth reiterating at the outset that Romanisation was never a policy of the Romans themselves. There was no compunction to become Roman and if peoples chose not to engage in Roman culture and society then the state would not coerce them into doing so. As Mary Beard has remarked:

> the Romans had neither the manpower nor the will to impose the kind of direct control and cultural uniformity that the *Asterix* model imagines. Their priorities were more often money and a quiet life. Provided the natives paid their taxes, did not openly rebel and, where necessary, made a few gestures to Roman cultural norms, their lives could – if they wished – continue much as before (Beard 2014: 278–279)

The exceptions to this were if there were an active, aggressive attack on Roman authority – rebellion was not tolerated and would be dealt with swiftly and severely. Equally, while there was almost complete religious freedom, and an acceptance of, and engagement with, native cult beliefs and practices, the Romans would not tolerate religious practices that directly offended their own religious sensibilities or practices, or that they saw as subversive of Roman rule. This was the root of their direct intolerance and suppression of the druids, since it was understood by the Romans that they practiced human sacrifice, which was forbidden under Roman religious law (Beard *et al.* 1998: 233–234). The same argument, and approach, was adopted by the Romans when dealing with Christians as there was a misunderstanding of the nature of the host in the act of communion, the pagan authorities characterising it as an act of cannibalism (Beard *et al.* 1998: 225). It is easy to see from these instances how a poor understanding of the religious practice of a relatively closed community such as the druids, or early Christians, might lead to bans and persecution.

A second point is the too easy equation between the use of Roman goods and an acceptance of Roman ways of life. Does the fact that people were using glass vessels or Roman pottery mean that they identified as Romans? Not necessarily if in all other aspects their way of life seems to have been unaffected by Roman rule (Russell and Laycock 2011: 121–122). Some in Wales undoubtedly adopted Roman ways of life and could evidence this in their housing, as (famously) at Whitton, Glamorganshire (Jarrett and Wrathmell 1981), or more self-evidently in their clothing or grooming habits seen in the adoption of tweezers and manicure sets (Reynolds 2022: 113–129), or in contributing to a statue base to some local worthy in their nearest town, as well as less demonstrably in learning Latin. One suspects, however, that those who used more functional Roman material culture, such as pottery or glass (Reynolds 2022: 132–142), did so because it was available, or had manifest advantages, or had aesthetic qualities that they appreciated but did not necessarily equate any of this as 'being Roman' any more than our use of abundant material culture designed in the USA and made in the People's Republic of China makes us American or Chinese, or even means that we identify with the values of either country. In other words, one can argue that rural populations especially were indifferent as to who ruled them, so long as they as rural people were allowed to get on with their own lives and did not feel that, for example, the tax burden was so great that they could not afford to make a living. One might also make the observation that adopting Roman fashions in clothing, appearance, language, and all the other facets of life would be unlikely if it were being done in isolation. Most people wish to 'fit in' with those around them and feel more comfortable if not standing out in society. It seems likely, therefore that the greatest feeling that most people living in rural Wales in the Roman period will have felt was indifference towards Rome (Russell and Laycock 2011: fig. 16). Rome itself was happy with this, so long as people paid their taxes.

Indifference, however, is not the same as rejection. Rejection is an active choice, a specific denial of a way of life (for example by becoming a monk or nun). It is a choice often made by those who are living in a particular way, but then decide that they no longer wish to continue to participate or have been pushed into a situation where they feel they have to

react; the rejection of the Hijab by young women in Iran from September 2022 is a very modern example of such resistance through dress code (Al Talei *et al.* 2022). In a place like the Roman Empire (and modern Iran for that matter), this was a risky thing to do, especially if you were poor and had no-one interested in protecting you. It is a situation that Jews found themselves in during the Empire. While they lived with the reality of Roman rule for centuries, in the end they rebelled so strongly and so often that they were exiled by the Emperor Hadrian from their homeland: they chose their faith and culture over becoming fully Roman (Goodman 2007). This is not what we see in Wales and to characterise the evidence for the continuation of native patterns of life from the Iron Age into and through the Roman period as 'rejection' is over-stating the case (Russell and Laycock 2011: 21–22) since it may instead be indifference. While we must be cautious not to take absence of evidence as evidence of absence since there is a real issue of visibility of buried archaeology in upland Wales, villas were rarely built in north Wales not because people hated Rome, but because the economic model of pastoralism did not provide the surplus to do so, even if you wished to. Nor is it easy to see how the required builders and materials would be made available in places remote from centres of Roman activity, such as forts and towns. A more nuanced position has been adopted by Mattingly who has characterised this diversity of response to Roman values as 'discrepant experience' which he defines as 'the co-existence of very different perceptions of history, culture, and relationships between coloniser and colonised' within the Empire (Mattingly 2006: 17). This interpretation allows for a more nuanced understanding of how peoples reacted to the cultural influences of the Roman state in relation to their own perceptions of their cultural traditions.

One final observation is that presenting the native peoples of Roman Wales as unwilling participants in Empire can in some ways be seen as a proxy for modern Welsh attitudes to English power exercised in Wales. This view has a long history. As early as the Edwardian Age, the peak of the British Empire, Haverfield wrote that: 'Still more recently, the revival of Welsh national sentiment has inspired a hope, which has become a belief, that the Roman conquest was an episode, after which an unaltered Celticism resumed its interrupted supremacy' (Haverfield 1912: 19). This view would see the Roman occupation of Wales as a brief and distasteful interlude in the history of a nation that was Celtic before, and after, Rome so that there was in essence an unbroken continuity of Celtic identity in Wales. The presentation of Wales as a resistant nation thus chimes in with how German nationalists, for example, presented their defiance and conquest of Roman power, as expressed in both the Varian disaster in AD 9 and the Batavian revolt of AD 69–70 (MacGregor 2014: 124–128). This is a view that, however, does not bear scrutiny when looking at the late and immediate post-Roman period in Wales.

The Roman influence in Wales after Rome

While it is impossible to be certain of what happened in the fifth century and later in Wales, or for that matter in much of England too, it is difficult to justify a position that sees the emergence of polities in Wales as a purely Celtic/native phenomenon, i.e.

simply a re-awakening of tribal identities that had survived unchanged from the Iron Age and through the Roman period. The early medieval kingdoms of Wales were localised within the *civitas* boundaries in the Roman period, but this is more an expression of the micro-geography of Wales than it is a re-assertion of Celtic identity. These kingdoms were firmly rooted in a Roman past (Charles-Edwards 2013: 15–21, 314–318). Even if one accepts that the tribes of Wales recorded at the time of their first encounter with Roman power actually existed in the form that they have come down to us, a view that is not universally accepted (Moore 2011: 346–349), to believe that the Iron Age tribes of Wales had reinvented themselves in their same territories would be to accept that the Roman period in Wales of nearly 400 years' duration had no measurable impact at all, an implausible situation, even in those areas where Rome's imprint seems minimal.

The evidence for the early medieval period throughout Wales is that the response to the relinquishing of Roman power in Britain was for the peoples of the *civitates* of Wales to seek to defend themselves and crucially to maintain and project a continuing Roman identity, not a native one (Charles-Edwards 2013: 40–44). As Charles-Edwards puts it 'What is not true is that the Britons ceased to give their allegiance to a Roman Emperor … Even Roman taxes were preferable to Anglo-Saxon conquest.' (Charles-Edwards 2013: 42). Since the early third century, all peoples living within the Roman Empire had been made Roman citizens, a mechanism to make sure that everyone paid taxes to the state, but also a confirmation that, after more than two centuries of Roman rule across the Empire, the old distinction between the Roman citizen and non-citizens was no longer appropriate. No-one alive in early fifth century Wales will have remembered anything other than a fully Roman identity, held in conjunction with a tribal identity. This is expressed, for example, in the fifth century tombstone of Corbalengus, an Ordovician (but with an Irish name), buried at Penbryn, in the territory of the *Demetae* (Charles-Edwards 2013: 176, ill.4.1). The direct connection to a Roman, rather than a purely native, past can be seen in two distinct and inter-related elements of the emerging Welsh nation.

The first, as noted, is that our earliest evidence of the emerging Welsh polities is the expression of identity in tombstones. In some, the use of Roman titles is prominent. The best-known example is that of the tombstone of Voteporix found at Castelldwyran, close to the Roman road to Carmarthen, who is styled *Protictoris*, a variant of the Roman title *Protector* which in the early post-Roman period is likely to have been an honorary title (Charles-Edwards 2013: 174–175). While the title is in Roman terms meaningless, it is nonetheless a Roman title, not a British one. The second, and connected point, is that these tombstones commemorate Christians. Christianity was above all at this date an expression of a Roman identity, as the writings of St Patrick, Gildas, and of Prosper of Aquitaine demonstrate (Charles-Edwards 2013: 226–228).

The adoption of Christianity, evidenced from the fifth century onwards by tombstones in Latin, argues at the very least for a Latin (and possibly Greek) literate stratum of society that was in contact with Rome, while the use of Latin titles for those in power

in parts of post-Roman Wales demonstrates awareness, however dimmed, of Roman power structures, and a wish to engage with them (Petts 2014). At settlements like Caerwent, where one might expect resistance to Roman power to have survived longest given the prolonged struggle of the *Silures* against Rome in the first century, the evidence is for a determined survival of Roman culture into the post-Roman period, expressed clearly in cultural material and burial practices (Knight 1998). I have argued elsewhere that the very fact that Roman Wales was not swiftly conquered in the fifth or even sixth century, as much of the rest of Britain was, was an outcome of a post-Roman British determination to preserve an identity that, far from being purely British, had a substantial overlay of Romanitas (White 2007; Charles-Edwards 2013). While some aspects of this narrative are difficult to substantiate or corroborate, the survival of Wales and the emergence of a Welsh identity during the Early Middle Ages is proof that the defence was successful. For the emerging Welsh, this tradition was reinforced by their own historical and cultural traditions. Thus, the Pillar of Eliseg apparently records a direct connection with Roman power through a transferal of rule from the usurping Roman Emperor, Magnus Maximus, in 383 to the king of Powys. The inscription does not survive today but antiquarian records have preserved an interpretable record of it showing that it gives an account of the lineage of the kings of Powys, and a statement of the extent of their power. As Edwards notes: '…lines 20–26 are clearly linked. They are concerned with Magnus Maximus, the Roman usurper, his links to the British ruler Guarthigirn and his family and the Powys saint Garmon, and they appear to take us back to the origins of the Kingdom of Powys in the late and sub-Roman period as they were perceived at the time of Concenn' (Edwards 2009: 165–166). This lineage was, however, not confined to the kings of Powys since the tradition of this transfer from Magnus Maximus to other Welsh rulers is recorded in other kingdoms too (Dumville 1977: 179–181; Charles-Edwards 2013: 37). The actual historicity of this hand-over of power is irrelevant: it is what was believed in the eighth and ninth centuries at least and was important enough to be inscribed so that it could, in Edwards' view, be recited at appropriate occasions, such as the accession of a king (Edwards 2009: 168–170). The rulers commemorated had successfully resisted the incursions of the Mercians, and perhaps neighbouring Brittonic kingdoms, into what was perceived to be the territory of Powys and the placing of the monument exerts a strong statement within the landscape as a concrete expression of ownership and rights.

The reason why such assertions were necessary is not only because the Mercians and others were attacking the Welsh kingdoms; the emerging English kingdoms too were laying claim to a Roman inheritance, especially so after their own conversion to Christianity and the adoption of the Roman rite (Charles-Edwards 2001). Their churches were increasingly linked to Roman buildings that must still have been all too visible in the landscape; their kings were appropriating surviving Roman forts and ruins for their own purposes (Bell 1998; Ray and Bapty 2016: 323–325; Carver 2019: 37–38). This was inevitable, but also a necessity in that, unlike the Welsh kingdoms, 'the Mercian kings of the Middle Angles, recorded from only the seventh century onwards, inherited little (if anything) in the way

of functioning imperial institutions' (Nelson 2001: 127). In this they differed not only from the Welsh, but also the Franks who could lay claim to an official connection to a hand-over of Roman power in the late fifth century through their links with the last remnants of Roman military authority and aristocracy, and their conversion to Catholic Christianity (James 1991). Thus, Offa's connections with the Carolingian court of Charlemagne suggest a relationship that was far from equal, even though Offa clearly tried to assert his desire to be seen, at least in some sense, as Charlemagne's 'brother' ruler (Nelson 2001). It is perhaps in this context that we can view Offa's choice to express the materiality of the difference between Mercia and Powys, between the English and the Welsh, in the form of a dyke. A monument of this type, a substantial bank and ditch echoing the form of the Antonine Wall, and the many Roman forts then even more prominent in the landscape than now, was an expression of power projected in a Roman fashion, especially so in the scale and ambition of the work (Ray and Bapty 2016: 342–344). It was an assertion of Offa's right to be considered as Roman in his scale of achievement, a potent answer to the continuing resistance of the emerging Welsh kingdoms at whom the dyke was targeted.

Coda

Whilst researching, thinking, and writing this article, I realised that the relationship between the Welsh and their Roman past is changing. This struck me first when I heard of, and saw the words to, *Yma o Hyd* – We are still here – during the joyous qualification of the Welsh Men's Football team to the FIFA World Cup of 2022. It is not often you come across a modern song naming a Roman Emperor, even if he was a usurper.

The thrust of this article is to move the narrative of Roman rule in Wales from one of resentful resistance to oppressive Roman rule, which I would argue is a response to Edwardian Imperial attempts to wipe out Welsh culture, as Haverfield's comment shows and as Hingley discusses (2016), to the defiant pride that the immediate post-Roman British had in what they created in what we now call Wales, perhaps a reflection of the new-found twenty-first century confidence in nationhood that devolution has fostered. You could argue, after all, that the Romans taught the native peoples of Wales to come together as one people, united increasingly by their developing language (Charles-Edwards 2013: 75–115) but also by the common culture of the Roman world and its new religion, and conscious of their place in it. The growing sense of Welsh identity emerging from the universal identity of the 'British' of the Roman period, separate and distinct from the emerging English as well as from the neighbouring Irish, Cornish and other peoples was reinforced by the creation of Offa's Dyke inasmuch as it was seen as a monument built against the local power of the Welsh kingdoms (Ray and Bapty 2016: 338–340). Offa's Dyke, along with the coastline of Wales, created an isolation that only enhanced the idea of Wales and its people as being distinct from their neighbours, fostering perhaps some of the defiance (and pride) reflected in the words of *Yma o Hyd: Ry'n ni yma o hyd. Er gwaetha pawb a phopeth* / We are still here, in spite of everyone and everything (Thomas 2022).

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The Linear Earthworks of Cornwall: What if They Were Early Medieval?

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This article examines various linear earthworks in Cornwall that may date to the early medieval period. The dating evidence for the earthworks is discussed. While incontrovertible evidence for when they were built is lacking, the article asks how they might fit into the early medieval period if that is when most or all of them were built. The article postulates that they may have provided refuges against raiding, probably from the kingdom of Wessex in the eighth and ninth century, so allowing the Cornish to preserve their distinctive identity and language until the modern era (Padel 2017).

Keywords: Cornwall, dykes, warfare, dating, identity

Introduction

Across Britain, there are at least a hundred linear earthworks (or as they are often more simply called: dykes), many probably dating from the early medieval period (specifically c. AD 400–850), the best known of which are Offa's Dyke and Wansdyke. That turbulent period saw the rise of new kingdoms as Roman Britain was replaced by a mosaic of small polities. Few are mentioned in historical sources, so the challenge is to ascertain when and why these dykes were built. Researchers continue to disagree about the function of these dykes and accurately dating them is difficult even with modern archaeological techniques. This study will examine some undated earthworks in Cornwall and postulates that these earthworks were of early medieval date and had a common function as defences against raiding. Cornwall is unique in being the only place in England where a Brythonic language survived until modern times (see Grigg 2008a). In this regard, might the dykes have some bearing on the emergence of Cornish identity through various iterations to its modern renaissance and the UK government recognising the Cornish as a national minority in 2014 (Grigg 2008b, 2018: 126–127)?

Possible original functions of dykes in early medieval Britain

Before considering the Cornish earthworks, it is necessary to outline the various reasons why dykes might have been built in the early medieval period in Britain more broadly. Some writers have claimed that early dykes were designed to control trade (e.g. Malim 2007), others argue they were amicably agreed frontier markers between kingdoms (Fox 1955: 279–281) while some have postulated a military role where in times of danger beacons or horns summoned local levies to defend the dykes (Burne 1959: 126–128; Hill and Worthington 2003; Grigg 2018). One writer claimed an earthwork in Yorkshire,

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Roman Rig, was the remains of a roadway, and though other writers were dismissive of this theory, it might be worth testing (Ferns 1980; Boldrini 1999: 28–29; Cronk 2004: 8–9). Earthworks have been used to delimit spaces for religious or ritual reasons like the banks of Neolithic henges or medieval Christian sites. In the past, many individual dykes postulated as early medieval have been interpreted as barriers constructed by the Britons to fend off Anglo-Saxon attack or vice versa. The longest monument, Offa's Dyke, is still widely considered to mark an Anglo-Welsh divide by the public (Bapty 2007). In recent years, historians have begun to question such simplistic divisions of people into Angles, Saxon, Jutes and Britons (e.g. Lucy and Reynolds 2002: 10). Yet, if such ethnic identities were not inherent but created, perhaps dykes actually defined the newly emerging kingdoms helping to form a sense of a distinct identity (Hamerow 2002: 100; Reynolds and Langlands 2006). It could also be that the military appearance of the dykes was largely symbolic with the spectacle of building a huge earthwork serving as a political device to reinforce royal power (Fox 1955; Squatriti 2002). This range of interleaving functions must be kept in mind when interpreting linear earthworks which might have been constructed in early medieval Cornwall.

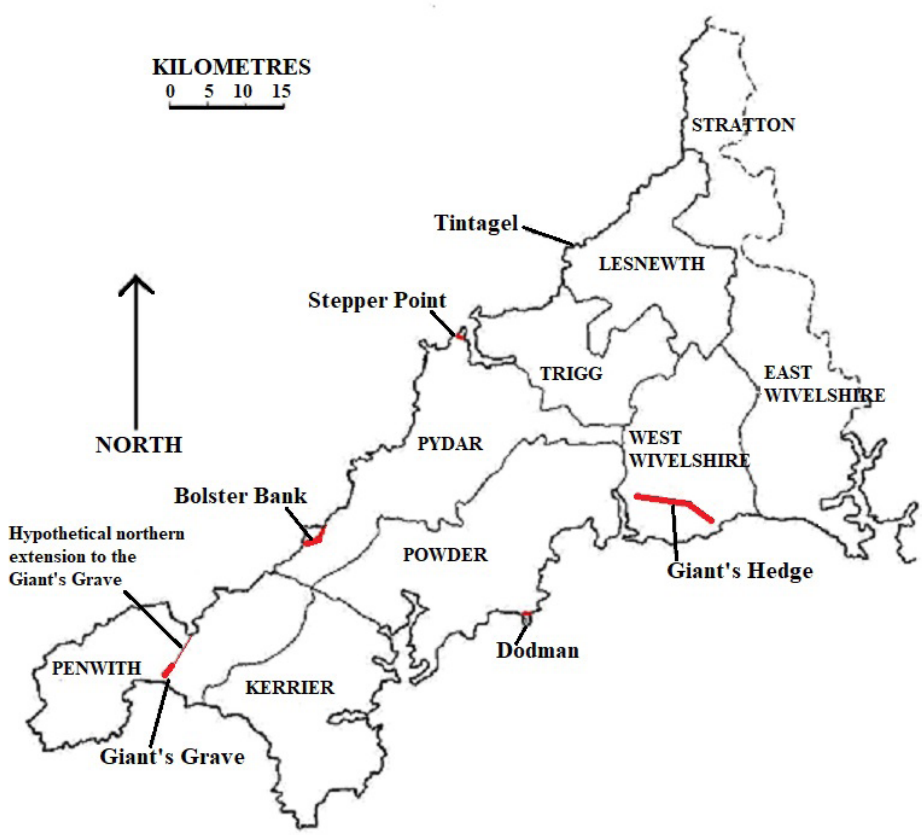

Figure 1: Map showing the location of the dykes in comparison with the Hundred boundaries of Cornwall

The Cornish dykes

My doctoral research surveying early medieval dykes across Britain identified five candidates for Cornwall (Grigg 2015, see also 2018; Figure 1). None have been scientifically excavated, however, so conclusive dating must await the results of future fieldwork. Most are named after mythical giants fabricated to explain these enigmatic features so it is unlikely their names will help identify the original builder or function.

Bolster Bank

The first is Bolster Bank, a single bank and ditch that cuts off a promontory of 486 hectares (1,200 acres) on the north Cornish coast (approximately SW 697 495 to SW 721 508) (Whitley 1881; Crawford 1953: 242; HES 1997). The promontory includes the prominent hill St Agnes Beacon and the dyke follows a semi-circular route around the foot of this hill from Chapel Porth in the west to Trevaunance Coombe to the north-east. The ditch is on the landward side while natural high cliffs flank the seaward side of the ground enclosed. The earliest record of the name is Bothlester is in 1398. Although this name was attached to a farm rather than the neighbouring earthwork, the name was possibly coined as the earthwork resembles an upturned boat; *both* is a protuberance and *lester* a boat in Cornish (Johnson 1980: 79; Padel 1985: 246; Morton-Nance 1999: 13 and 98). Borlase (1740) claimed the dyke also bore the names *kledh*, meaning 'dyke' (Carew in 1602 records *Whilancleuth*, 'Dyke-mine', presumably the same mine as *Wheal an Cleth* next to the dyke) and *Gorres/Gollet/Gullet* or 'weir/dam' (Carew 1602: 92; Lysons and Lysons 1814: ccxlvi; McLaughlin 1847: 28; Douch and Pool 1975: 203; Morton-Nance 1999: 23 and 27). Presumably, popular stories of a giant called Bolster building the dyke grew up after the Cornish language died out in the area (roughly between 1650 and 1700), which made the place-name incomprehensible for English speakers (McLaughlin 1847: 28; Hunt 1908: 73–75; Douch and Pool 1975 203–204; George 1986). Within a century, Borlase reported the story of the giant Bolster building the earthwork. This suggests that local folklore regarding dykes may have less antiquity than often assumed (Borlase 1769: 314).

Nicholas Johnson surveyed the dyke and this is the only comprehensive published study of any Cornish dyke (Johnson 1980). Like many other general county surveys that mention the earthwork, Johnson favoured an early medieval date and it is marked on the Ordnance Survey Map of the Dark Ages even though the early large-scale Ordnance Survey maps had labelled it 'Roman Dike' (Borlase 1769 313–314; Penaluna 1838: 162; Cornish 1906: 472; OS 1966; Weatherhill 1985: 26 and 42–43; Preston-Jones and Rose 1986: 139; Payton 1996: 72). Although the area enclosed is rich in tin, there is no archaeological evidence of ancient settlements within the circuit of the earthwork. The closest sites and finds to the earthwork are pre-Norman chapels which lie near either end and there are reports of late Roman coins found inside the enclosure on St Agnes Beacon (Borlase 1769: 314; Douch and Pool 1975: 203; Johnson 1980: 87).

Figure 2: Looking north towards St Agnes Beacon with Bolster Bank in the foreground (Photograph: the author)

Bolster Bank was possibly 3.3km long, but only about 1,000m of the central part are visible today (SW 705 493 to SW 716 500). The best-preserved sections of the ditch are between 0.7–2m deep and the bank 2.5–3.5m high while the ditch and the bank are both up to 6–9m wide (Johnson 1980; Weatherhill 1985: 42; Cole 2004: 9–10; Figure 2). Tonkin and Newton, writing in 1733 and 1847 respectively, give much larger dimensions for the bank, both saying that in places it was 20 feet (6m) tall and Newton giving figures of 30–40 feet (9–12m) for the width of the ditch (Newton 1847; Douch and Pool 1975: 203). However, Tonkin's figure for the width of the ditch, as with those given by Borlase in 1740 and 1769, tally with the 6m figure (Borlase 1769: 313; Douch and Pool 1975: 203; Johnson 1980: 79). Silting has now made most of the ditch almost impossible to see and, without a good map, distinguishing the dyke from other surrounding field boundaries is difficult. In 2004, Cornwall's Historic Environment Services under Richard Cole surveyed a small, damaged section (at SW 714 497) and excavated a small section 50cm wide and 20cm deep (Cole 2004). The unpublished report (no. 2004R082) noted simple stratification in the cross-section (probably as the original builders dug through different layers of material when digging the quarry ditch) suggesting the dyke was never rebuilt (some stone facing was seen but thought to relate to a later feature built alongside the dyke). Our preliminary conclusion is therefore that we know the monument is of a single phase even if the monument's date is uncertain.

Giant's Hedge

The second earthwork is the Giant's Hedge, a dyke that survives intermittently along a 11km stretch from the Lerryn River (a tributary of the River Fowey) to the West Looe River (from SX 136 567 to somewhere near SX 254 528) facing inland and cutting off

Figure 3: The Giant's Hedge looking east from the B3359 just north of Lanreath (Photograph: the author)

a territory roughly 13km by 6km (Crawford 1953: 242; HES 1990b; Figures 3 and 4). Borlase seems to be the first to record an association of the earthwork with giants; he also claimed the dyke reached as far as Lerryn and was a Roman road (Borlase 1758: 325). However, fieldwork by later writers makes those claims seem very unlikely as it is both too narrow and its route too sinuous for a Roman thoroughfare (Lysons and Lysons 1814: ccxxviii and ccxlvi; Cornish 1906: 472; Andrew 1935: 215–217; Crawford 1936: 174). There is no dating evidence for the dyke, though Borlase reports the finding of Roman coins nearby on the banks of the Fowey River and also notes the dyke could not be easily outflanked as it terminates below the lowest fordable point of the estuaries at either end (Borlase 1758: 325). Just north of Lanreath, one of the most northerly points on the dyke, the earthwork forms a small salient round a hill which my fieldwork proved had good views to the north even though it is not the tallest in the area (Grigg 2015: 395).

Most scholars presume an early medieval date for the earthwork, though Parkes recently suggested it was a prehistoric boundary (OS 1966; Weatherhill 1985: 32; Preston-Jones and Rose 1986: 139; Todd 1987: 259; Payton 1996: 72; Parkes 2000: 7). For much of its course, erosion and agricultural activity has left the dyke as merely a scarp, but in Willake Wood (SX 153 569) it is well preserved (Weatherhill 1985: 32). The bank is

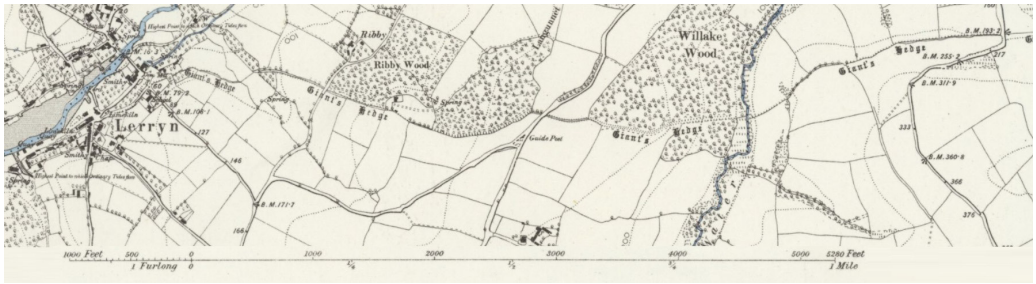

Figure 4: Map showing part of the route of the Giant's Hedge as shown on the Ordnance Survey's Six Inch map Cornwall Sheet XLIII.SW (surveyed: 1881, published: 1888) (Reproduced with the permission of the National Library of Scotland)

stone-faced and 2.5–4m wide and between 1–5m high, averaging around 1.5m on long stretches though the 5m figure is misleading as occurs where the bank is on a steep hillside that exaggerates the vertical elevation (HES 1990b). The ditch is 3–8m wide and around 0.8m deep (Todd 1987 259; HES 1990b). In the eighteenth century, Borlase reports the dyke was 7 feet (just over 2m) high, twenty feet (6m) wide and 7 miles (11km) long (Borlase 1769: 333). The Cornwall Archaeology Unit (report number GRH 37/3) carried out an unpublished watching brief on the line of the earthwork in 1984 at Kilminorth Wood. At this site the dyke was just over 1m tall and the front of the dyke had a single skin wall consisting of six courses of stones, but as with all the watching briefs of the earthworks in this article, no dating evidence was found (HES 1984).

Giant's Grave

The third candidate is the Giant's Grave dyke, a single bank and ditch earthwork, facing south-east and lying in the parish of Ludgvan (SW 508323 to SW 505320) in the southern part of a narrow neck of land that separates west Penwith from the rest of Cornwall (HES 1990a; Figures 5 and 6). The name seems to be of some antiquity (though certainly not medieval) as it is used on an 1838 Tithe Award of Ludgvan and linked to a story of Tom the giant killer filling the grave with one of his victims (Crawford 1936: 171–174). Lysons (1814) and Penaluna (1838) claimed parliamentary forces besieging the royalists in St Michael's Mount during the Civil War threw up the earthwork but give no source for the information (Lysons and Lysons 1814: 205; Penaluna 1838: 34; Lach-Szyrma 1885–1886: 80). Lysons' account of other dykes seems to come almost verbatim from the eighteenth-century antiquarian Borlase, but Borlase does not mention this particular earthwork. The bank is dissimilar to Civil War fortifications with their protruding artillery platforms and the location is over 2km from the causeway to the island, which is out of the range of guns of the period. The heights above Marazion are a far more likely location for any earthworks built to besiege the island. Though the guidebooks to St Michael's Mount suggest the siege was rather dramatic, the works built by the defenders on the island look hastily built and contemporary sources suggest the sieges

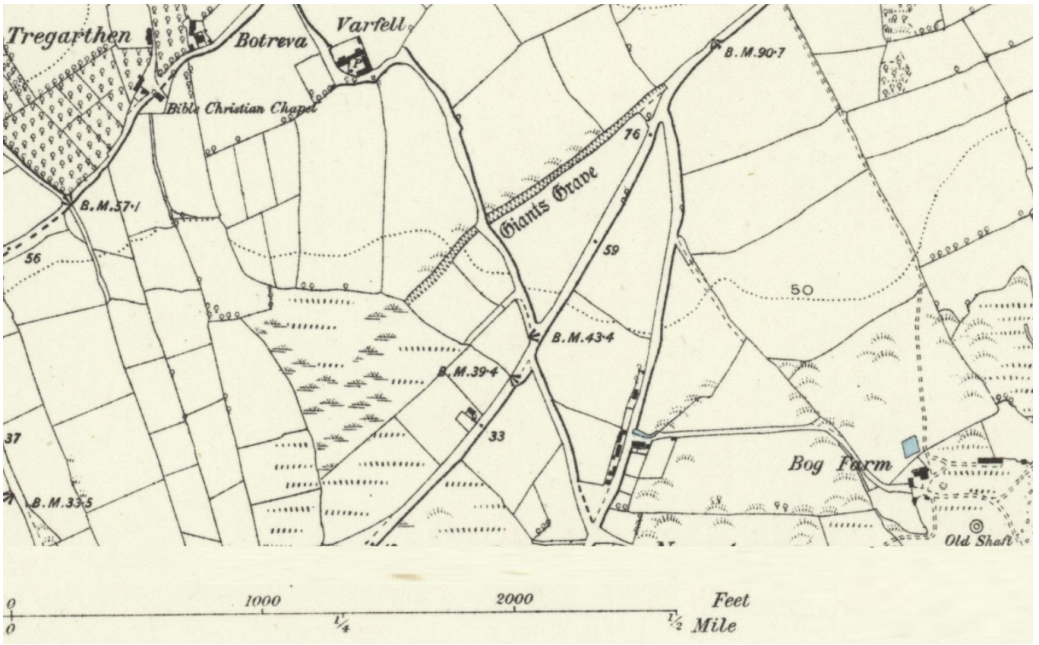

Figure 5: Giant's Grave as shown on the Ordnance Survey's Six Inch Cornwall Sheet LXVIII.SE (surveyed: 1877, published 1888) (Reproduced with the permission of the National Library of Scotland)

were rather brief and bloodless (Fairfax 1646; Herring 1991; Herring 1992). Professor Mark Stoyle, an expert on Cornwall in the Civil War at the University of Southampton, and Peter Harrington, an expert on Civil War fortifications at Brown University Library, are sceptical of a Civil War date for the Giant's Grave and neither was aware of any tradition or source that linked it to the Civil War (personal communications).

At present, the Giant's Grave is about 350m long with the southern terminus flanked by boggy ground (Herring *et al.* 2016: 200–202). At the northern terminus of the earthwork the alignment of the dyke is contiguous with the present day A30 that runs across the neck of land to Hayle for nearly 6km. Before road widening in the mid-1930s, Crawford claims he could clearly see the old surface-line under the southern end of the road which could possibly be a reference to the earthwork and in an unpublished report for the Cornwall Archaeological Unit (now the HES) Peter Herring suggested the road may have obliterated the dyke (Crawford 1936: 174; Crawford 1953: 242; Herring 1991). If Crawford and Herring are correct, it could have reached the Bristol Channel and defined the whole west Penwith peninsula. The line of the A30 to Hayle does seem a good tactical alignment for a dyke with higher ground to the west and lower ground on the eastward side giving good views of anyone approaching the earthwork. Of course, if Crawford's observations of the Giant's Grave are correct the road may only have destroyed a small part of the dyke and the hypothetical northern extension might have only reached a few metres further than the present terminus. Sources of different dates give the size of the

Figure 6: The Giant's Grave from the west (Photograph: the author)

bank of the Giant's Grave as 1.8–3.3m high and up to 5m wide with the ditch as 7m wide, but none records the depth of the ditch (Crawford 1936: 174; HES 1990a; Herring 1991). Fieldwork during this study suggests for most of its length the bank is now about 2m high with a width of up to 5m, though in many sections later activity has reduced this to about 3m. Silting has obscured the ditch, so no meaningful measurement of the depth or width is now possible.

The Dodman

The penultimate candidate is The Dodman, one of two examples probably less likely to be early medieval. It cuts off a headland enclosed on three sides by steep cliffs in the parish of St Goran on the south coast of Cornwall (SW 999 397 to SX 003 400). As with many other Cornish dykes it is reputed locally to be the work of a giant and alternative names for it include The Deadman, Thica Vosa, Balk, The Bulwark, The Vallum and the Hack and Cast (Lysons and Lysons 1814: cccxlvi; Cornish 1906: 458–460; Crawford 1936: 174; HES 1989a; Figure 7). The Victoria County History states that the sixteenth-century antiquarian Leland directly mentions Dodman, but his description of a fort near the shore 'a myle by west of Penare' in the parish of 'Gerons' is ambiguous (unfortunately there is both a Pennare and a Penare in the area) and could equally be Dingerein Castle

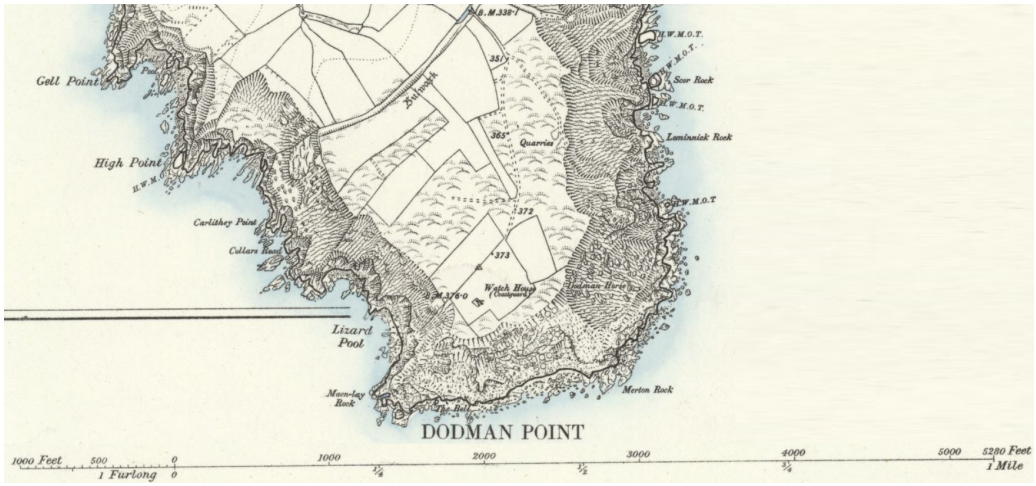

Figure 7: Dodman (marked at 'Bulwark') as shown on the Ordnance Survey's Six Inch Cornwall Sheet LXVI.NE & SE (surveyed: 1879, published 1888) (Reproduced with the permission of the National Library of Scotland)

or Veryan in the neighbouring parish of Gerrans (Cornish 1906: 458–460; Smith 1907: 201). Clearer references by Leland to the headland of Dodman, or Dudman as he spells it, do not refer to a fort or any other earthwork (Smith 1907: 322–323). While it has been speculated that Dodman derives from *tomen*, the Cornish for earth bank or dam, it was probably named after a local person as the family name was recorded in Cornwall as far back as 1201 and in 1469 a Dudman was recorded living in the nearby estate of Bodruggan (Weatherhill 1985 117; Padel 1988 79; Morton-Nance 1999: 166). No systematic study or excavation of the monument has occurred. The earthwork is about 700m long, but as both ends finish on an eroding cliff face it originally was probably longer. The earthwork has a large inner bank at least 2m high and 6–9m wide, a ditch on the landward side the bottom of which is 6.5 metres lower than the top of the inner bank (though the natural slope of the land exaggerates the drop) and a counterscarp bank 1.2–2m high (Cornish 1906: 460; Weatherhill 1985: 117; HES 1989a). A track now runs in the ditch, so the original profile and width is hard to determine.

Though often assumed to be an Iron Age fort, it seems unusually large protecting an area of 34 hectares, though the plateau is just 22 hectares (Forde-Johnston 1976: 97 and 137; Johnson 1980: 86; Johnson and Rose 1982: 190). The larger Iron Age cliff castles of Cornwall tend to have multiple banks and complex fortified gateways like that found at Maen Castle near Land's End (Cotton 1958–1959: 114–115), but these are lacking at The Dodman as the only entrance seems to be a later farm track that slices through the bank. It is a prominent site so may have been refortified in more recent times and local tradition claims this occurred as a defence against the Spanish Armada, though this is pure speculation (Parkes 2008: 66). However, a counterscarp bank is unusual for an early medieval dyke (though one is found on West Wansdyke) so without excavation

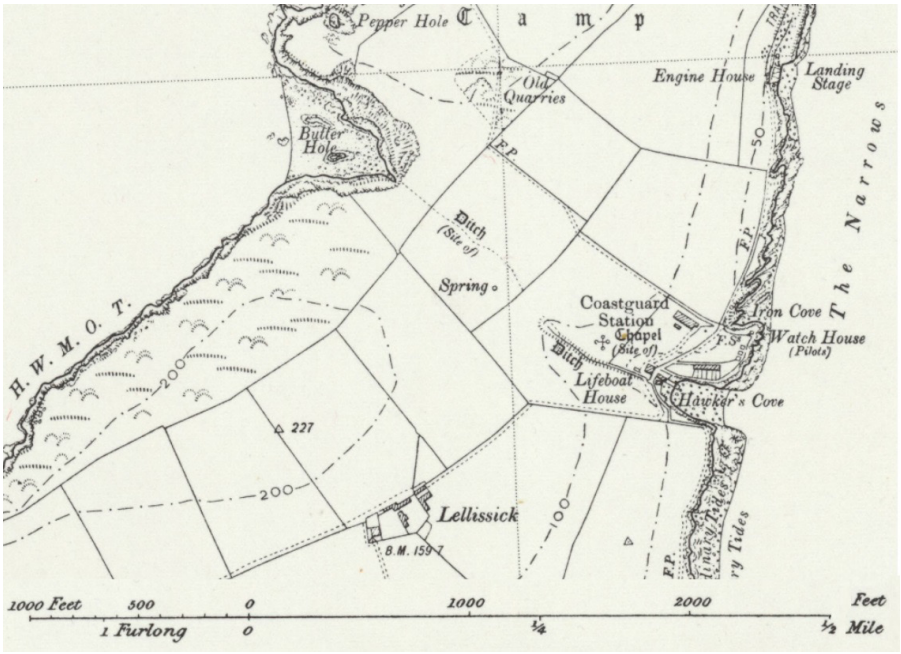

Figure 8: Stepper Point earthwork (marked at 'Ditch') as shown on the Ordnance Survey's Six Inch Cornwall Sheet XVIII.SE (revised: 1938, published: c. 1946) (Reproduced with the permission of the National Library of Scotland)

any assumptions about a date are speculative (Erskine 2007 86 and 101). Despite surveys being made of the interior, there is no evidence of a prehistoric settlement on the headland enclosed by the earthwork, though there are two barrows and clear signs of a prominent medieval field system.

Stepper Point

The final candidate is at Stepper Point at the mouth of the River Camel where there is a dyke that has no name of its own, separating a cliff-fringed headland from the mainland (HES 1989b; HES 1989c; Figure 8). The name of the point was originally Stuppart according to the director of the nearby Padstow Museum (John Buckingham personal communication) and appears on early seventeenth century maps as Stuppert (Norden 1600 and Speed 1605), which is possibly derived from an English personal name that dates from after the period under study in this paper. Ordnance Survey and Historic Environment Services surveys have variously interpreted it as an Iron Age camp or a medieval boundary bank. A 2007 Time Team dig on a settlement just outside the enclosed area, Lellizzick, found pottery and other finds from the Iron Age and Roman period as well as high status fifth/sixth-century Byzantine pottery (aired 8 March 2008, though the published report makes no reference to the earthwork, Wessex Archaeology 2008).

The Time Team experts presumed the dyke was an Iron Age cliff castle, but if so, only The Dodman is of a similar size and the only pre-modern signs of settlement from within the dyke are some medieval ridge and furrow found during unpublished fieldwork (HES 1989b). Medieval documents from the Priory of Bodmin and a 1694 map indicate a chapel to St Sampson once stood on the headland, possibly where he was reputed to have landed in Cornwall (Henderson 1955). There is also a 1271 reference to a rabbit warren owned by the priory and as the ditch seems rather shallow and the present remains of the bank very slight, it could just be a later medieval warren boundary though only excavation could prove this (HES 1989c). The dyke was once probably about 300m long running from Hawkers Cove to Pepper Hole (SW 909 778 to SW 911 776). Only 55m of the earthwork is now visible above ground level due to past plough action (SW 909 779 to SW 909 778), though much of the rest of the course can be seen as a crop mark from the air. The dyke consists of a low bank with a wide shallow ditch on the south-west side facing inland.

Analysis of the size of the earthworks

Using the measurements of the earthworks from this study (obtained from fieldwork and published studies) we can attempt to calculate the amount of labour needed in their construction. The best way to calculate the amount of earth moved when constructing a dyke is to excavate the ditch, with the silt removed a ditch's original profile is revealed as the eroded parts of a bank are lost forever. Without clear excavation evidence and with most of the ditches heavily silted, measurements of the banks of Cornish dykes are unfortunately the best option.

The author has elsewhere produced a reliable estimate of the amount of earth an early medieval labourer could move in a day of 1.5–3m^3 per day (Grigg 2018: 72–74). This figure for a digging rate, while obviously an estimate and would vary between people and during the day as the person tired, is probably quite robust as it is drawn from a number of sources including the author's own experiments. The sources that underpin this calculation include the Experimental Earthwork Project at Overton Down, builder's estimates, the Royal Engineer's handbook, records of soldiers digging in the First World War and accounts of Charlemagne having a canal dug (Jewell 1963, Hutchinson and Stuart 2003). Calculating the amount of labour used requires some assumptions, for example, we may assume that if a dyke is now intermittent it is because agriculture, urbanisation, industry or natural erosion has destroyed sections, but it is possible it was never continuous. Likewise, the assumption that the tallest section of the bank represents the best-preserved section may also be false if the earthwork was not originally uniform in design. Antiquarians may give larger figures for the length of the monument or the size of the banks because they saw the monument when it was better preserved, but we cannot be sure of the accuracy of their surveying techniques. The digging rate estimate also ignores the number of people involved in surveying the course of the dyke, organising the manpower and supplying the workforce, it simply tells us how many were required to dig it.

Earth banks are irregular semi-circles in profile; by plotting numerous dyke profiles on graph paper the author has found the surface area of the cross section is usually 60% of the width multiplied by the height of the banks. If we multiply the resulting number by the length of the dyke, we get an approximate figure for the volume of earth in the bank. The surviving 1,000m section of Bolster Bank is around 2.5m tall and 6m wide suggesting it was 9,000m³. Assuming it was originally closer to 3m tall (Tonkin's figure of 6m seems rather high suggesting that he may have been measuring from the bottom of the ditch to the top of the bank) and it did run the full 3.3km from Chapel Porth to Trevaunance Coombe it was probably 35,640m³. Assuming the Giant's Grave was 2m tall and 5m wide it was approximately 2,100m³, but if the hypothetical northern extension existed, it would have been very similar in size at 36,000m³. Assuming an average size of 2m tall and 4m wide for the Giant's Hedge when first built, it would have been larger at about 52,800m³. As the bank of the Giant's Hedge is partly stone, which takes more time to excavate, it would probably have taken a little longer to construct. Dodman a tenth of the size of the Giant's Hedge at about 5,040m³, but no accurate estimate for the Stepper Point dyke is possible as ploughing has flattened the bank. With a workforce of one hundred and assuming it was built in a single year, which is probably the size of some early medieval raiding armies, Bolster Bank might have taken up to 238 days to complete, the Giant's Grave around 14 days (though 240 days with the hypothetical northern extension), the Giant's Hedge 352 days and Dodman around 34 days. The construction of such earthworks probably could have only happened in the dry summer months before the busy harvest period.

Although these dykes are small compared with Offa's Dyke or Wansdyke, when compared with (for example) Iron Age hillforts these dykes, even in their present state, are impressive. The ramparts of the most common smaller hillforts are less than 2,000m³ while even larger examples, of which Carn Brea is the only Cornish example, are only 11,000m³ meaning the Giant's Hedge took around five times the labour to dig (Hogg 1975: 56–57 and 161–164). I conducted a great deal of fieldwork studying linear earthworks for my PhD and the better-preserved sections of Bolster Bank and the Giant's Hedge are far closer in height and design to early medieval earthworks. By way of contrast, prehistoric earthworks often have multiple banks or branches that the Cornish examples lack (Grigg 2015: 77).

The functions of the Cornish dykes

The size and length of these earthworks (which together stretch for at least 15km across the Cornish landscape) suggest that these were important structures and there was probably pressing reasons needed to motivate people to build them. By examining the evidence against the various theories, we can perhaps understand why the dykes were built and what function they originally served. Obviously, any earthwork can serve a multitude of uses long after their initial one has become obsolete, like being reutilised as a field boundary (as large stretches of the Giant's Hedge or Bolster Bank are today), but such secondary uses are not necessarily related to their primary function and therefore outside the scope of this study.

Firstly, we can examine the theory that they delimited kingdoms. We would expect an agreed frontier between the kingdom of Cornwall and that of the West Saxons (both a political and a cultural boundary between the English and Cornish) to be a north–south dyke parallel to the Tamar which none of the dykes are. Cornwall might have been divided into subkingdoms owing allegiance (even if nominally) to a wider ruler, but only two seem to delimit an area possibly large enough: the Giant's Grave (if it did cut off the Penwith peninsula) and the Giant's Hedge. Each delimit large areas with more than one settlement in them, but even in these cases they would be very small polities (respectively 25 and 13km across at their very widest points). The Giant's Grave, if the hypothetical northern extension did exist, delimits an area that is just half a hundred (Penwith) and historians have usually assumed Cornish hundreds preserve the outline of the early sub-divisions of the kingdom of Cornwall though as Turner rightly postulates they easily date to a reorganisation when Cornwall fell under West Saxon rule (Padel 1985: 226; Preston-Jones and Rose 1986: 137; Soulsby 1986: 25; Dark 1994: 155; Thomas 1994: 215–217; Payton 1996: 72; Turner 2006 113–118). The area protected by the Giant's Grave dyke contains a place-name, Lesingey, that suggests a ruler's settlement or prince's hall (a 'lys') and old Penzance market cross, according to Macalister, records a tenth-century king Ricatus though few accept now accept that interpretation (Macalister 1929: 188; Macalister 1949: 180–182; Preston-Jones and Rose 1986: 139; Soulsby 1986: 25; Turner 2006: 56–57). Perhaps it could have functioned as a border marker of a small kingdom ruled by a petty king (like Macalister's Ricatus) even if it was not originally designed as such, but the area seems rather small and the word 'king' on the Penzance cross is probably a figment of Macalister's imagination and other carved stones of that period record names without a title that suggests they were a king (Okasha 1993: 198).

The authors of many surveys of Cornish history have assumed the Giant's Hedge also marks the boundary of a post-Roman petty kingdom (Lysons and Lysons 1814: ccxxviii; Weatherhill 1985: 32; Preston-Jones and Rose 1986: 139; Todd 1987: 259; Payton 1996: 72). However, the area forms less than a small fraction of the local Hundred (West Wivelshire) and there are no 'lys' place names in the area enclosed (Holmes 1983: 8; Padel 1985: 150–151; Preston-Jones and Rose 1986: 139). The area contains a handful of villages (like Polruan, Pelynt, Polperro and Porthhallow), one small town (West Looe) and a few hamlets. If these dykes were the borders of kingdoms, we would expect them to influence later administrative boundaries and perhaps have names that either reflect their function as a border or record the name of the kingdom. However, these dykes are named after giants, hundred boundaries ignore the dykes and only the hypothetical northern extension of the Giant's Grave follows a parochial boundary. To build such borders would have taken at least a hundred labourers digging every day for about eleven months, though if digging were limited to the summer, this would have spread over at least three years (a massive strain on communities reliant on farming and fishing). It would be difficult for such small hypothetical sub-kingdom to spare such numbers (remember that they involved earth being moved on a larger scale than any prehistoric monument in Cornwall) making it possible, especially for the Giant's Hedge, that the

builders drew on labourers from outside the enclosed area. If the Giant's Grave and Giant's Hedge were borders it seems highly unusual that they would mark their borders with such ambitious earthworks when other larger kingdoms in the region did not.

Some other possible functions of early medieval dykes are even more unlikely than the kingdom border theory and can only be applied to the longer Cornish earthworks. While farmers have reused most as field boundaries and the earthworks tend to look like hedgerows today, they were built on a much larger scale than typical Cornish field boundaries. Fieldwork suggests most hedgerows adjoining the dykes seem about 1m tall and 2m wide, but the banks of the dykes are usually at least twice as high and three times as wide and none of the dykes enclose an area small enough to be a field. Though Borlase thought the Giant's Hedge a Roman road and the route of the Giant's Grave may look like a perfect transhipment route from Hayle to Mount's Bay avoiding a sea journey round Land's End, none of the Cornish earthworks would make a good road. The profile of the Cornish earthworks is very different to a road, where the banks are well-preserved they are both too tall and too narrow, roads invariably have ditches on both sides for drainage while all these earthworks only have a ditch on one side and the Giant's Grave (the earthwork whose route is most likely to mark a routeway) ends in a bog. The road theory seems highly unlikely.

If the dykes enclosed areas of religious significance, we would perhaps expect formal gateways to allow the faithful access to the sites behind (or to make sure only the sanctified enter) and to find religious sites like a monastery in the areas defined by the earthworks. There are many stone circles to the west of the Giant's Grave (though this may be coincidental) and there was a chapel at Stepper Point. St Agnes Beacon is very prominent and might have once been a place of religious significance, but apart from some run-of-the-mill parish churches, there are no especially significant religious sites in the area defined by the Giant's Hedge. No archaeological finds such as offerings have been found associated with the dykes and no religious site is directly attached to these Cornish earthworks so a theory of a ritual or religious function for building these earthworks is probably best laid aside.

The areas enclosed by most of these dykes are much too large to be fortified settlements though this seems exactly the function for the Tintagel earthwork and is a possible explanation for Stepper Point and Dodman. Until we find early medieval settlement evidence in the area enclosed by the latter two earthworks it is impossible to prove. The position of the earthworks suggests they did not control land trade (which flowed along the east–west spine of Cornwall or from the sea), though the Tintagel earthwork may have helped protect the wealthy seasonal settlement on the headland. The Giant's Grave could have help regulate overland trade with west Penwith, but it is unlikely this small area could attract enough merchants to justify the labour involved in erecting a trade barrier. Goods from Brittany to Wales or Ireland were transhipped across the neck of Penwith, or along the so-called Saint's Way between the Fowey and Camel

estuaries yet large linear earthworks do not cut these routes. Trade barriers require gateways and booths where the border guards could collect tolls and inspect goods, every gap in these dykes is crude and post-dates their construction. Crawford thought the Giant's Hedge might be the beachhead defences of an invader, though he did not speculate who they were and most known invasions from the Continent landed much further east where the English Channel is narrower (Crawford 1953: 186). Mythical giants, not hypothetical kings who ordered their construction give their names to the dykes, so glorifying a leader was perhaps also not their main function.

The dykes are not identical in size, length and construction technique (the Giant's Hedge, for example, is stone faced while the Dodman has a counterscarp bank), but they have similarities: a single bank around 2m tall and 5–6m wide with a single ditch of a similar scale (with the exception of Stepper Point, which is possibly later medieval). While Dodman may be Iron Age, forts from that period have obvious gateways with in-turned banks, bastions, outlying or flanking ditches that mark the entrances, features which all these dykes lack (Weatherhill 1985: 20). All these dykes run to and from coastal inlets cutting off peninsulas that are mostly protected on the seaward side by high cliffs and while dykes like this are found elsewhere in Britain (for example Dane's Dyke in Yorkshire) this form is rather unusual. The similarity in designs and location of the Cornish earthworks suggests that they could have been a reaction to a single stimulus and as all have a ditch on one side barring access to compact defensible areas of land and fieldwork carried out by the author has shown that many have a prominent hill or rise within the circuit giving clear views of anyone approaching (St Agnes Beacon with Bolster Bank and Lanreath with the Giant's Hedge), a military function is worth considering.

Raiding and dykes

If the linear earthworks are early medieval in date, this period was a time of instability so perhaps these dykes were built against enemy attacks like the one recorded in the Anglo-Saxon Chronicle in 815 when the West Saxon king Egbert raided Cornwall from east to west (Bately 1986: 41; Swanton 2000: 59). While the smaller examples could have acted as refuges for large numbers of people and cattle, the larger dykes may have acted as stop lines set back from a vulnerable border designed to defend the core of Cornish sub-kingdoms during the eighth and ninth centuries, which is why they only cover a small part of a Hundred yet possibly utilised labour from a larger area. Parallels with similar English dykes are apparent. Early medieval dykes were not on the edge of a kingdom as the dykes had no permanent garrisons and therefore were vulnerable to surprise attack; their location cleverly allows local levies to gather on them while raiders are still in the marches. Wansdyke, if it is a West Saxon work, is some distance south of the probable Mercian border it faces and there were settlements whose place-names suggest a Middle Anglo-Saxon origin west of Offa's and Wat's Dyke (Hill and Worthington 2003; Reynolds and Langlands 2006).

The Cornish dykes are set back from the Tamar (and therefore the West Saxons) and beacons, for example St Agnes Beacon (a superb viewpoint visible from as far afield as Camborne), could have warned people to retreat to the dyke (Douch and Pool 1975: 203–204; Johnson 1980: 79). Similarly, at Tintagel a large ditch that we are far more certain is early medieval in date, defended the settlement on the cliff-fringed peninsula from landward attack; this settlement was probably an important trading settlement and large numbers of early medieval Mediterranean sherds of pottery have been found on the headland (Dark 1985: 13; Thomas 1993: 58–59; Morris 1998). Raiders from other areas (like the West Saxons) could not outflank the Giant's Hedge as both ends are below the lowest fordable point on the Fowey and Looe estuaries. Peasant levies protecting the land against incursion will often run in the face of determined raiders, but a dyke would give them confidence and a fixed point to make a stand, while raiders, always looking for easy targets, would leave a manned dyke alone (the connection between early medieval dykes and raiding is explored in detail in the author's other published works, e.g. Grigg 2018). After the West Saxon raiders went home, the people could rebuild their ravaged farms, their livestock would be safe behind the earthworks. If the dykes were temporary measures during times of crisis set back from the borders of a territory this would explain why they do not influence later hundred or parish boundaries. Research for my doctoral investigation of earthworks across Britain demonstrated that prehistoric earthworks were more likely to be reutilised by parish boundaries than the more recent early medieval dykes (for reasons that are unclear to us), further suggesting an early medieval date for the Cornish earthworks (Grigg 2015: 52–55). As the Cornish earthworks if they were early medieval in date, would have rapidly fell out of use once the areas fell under West Saxon rule (roughly the tenth century Padel 2022: 66–68), locals soon forgot the names of their builders. This also occurred across Britain (with Offa's being the notable exception); in Cornwall stories of giants grew up to explain their existence in a similar way to the stories of the Devil building many of the dykes in parts of England.

Conclusions

Some of the similarities between the dykes of Cornwall (the size of the banks, the lack of gateways and their locations cutting off headlands, peninsulas and promontories) suggest that they could have been a reaction to a single stimulus, in this case it has been suggested raiding, and the differences in the length of them may have arisen as the builders were inhabitants of different sub-kingdoms or districts of Cornwall. By not defending the early medieval Anglo-British political, cultural and linguistic border with a north–south earthwork near the Tamar, the West Saxon kings could rampage along the spine of Cornwall demonstrating their martial might while the Cornish were safe behind their dykes (which includes the settlement of Tintagel) not destroyed in a decisive battle. The Anglicisation that occurred as Wessex expanded into Devon, Somerset and Dorset never occurred on the same scale in Cornwall (and some say Cornwall has never felt fully English). The process whereby areas of lowland

Britain became convinced of their Anglo-Saxon ancestry was so thorough in the fifth to seventh centuries that the Devon-born St Boniface in the early eighth century thought it his duty to convert his 'cousins' in Germany. Uniquely in south-west Britain, the inhabitants of Cornwall never completely adopted the English language for over a thousand years and Brythonic place names (especially in the central and western parts) abound (George 1986; Padel 1988; Drake 2018). The maritime links Cornwall maintained with Brittany up until the Reformation perhaps bolstered a Brythonic culture (Soulsby 1986: 78), but the south coast of Devon is as easy to reach by sea from Brittany, while north Devon and Somerset are only a short voyage from Wales they are all thoroughly Anglicised. Control of Cornwall was certainly an attractive prospect to the kings of Wessex as her mineral wealth had attracted merchants from as far away as the eastern Mediterranean from Phoenician times until the reign of the sixth-century Byzantine Emperor Justinian (Fulford 1989). The Tamar was never an impassable barrier as the English names for the eastern Hundreds of Cornwall probably reflects West Saxon influence of those parts of Cornwall nearest to Devon. The dykes of Cornwall may crucially have provided refuges allowing Cornish society to weather the aggressive early stages of West Saxon expansion and so maintain a distinct identity longer which allowed the language to weather the early storms of the expansion of Old English when other parts of lowland Britain quickly lost any native language (and associated non-English identity) they might have had.

Any hypothesis about individual Cornish linear earthworks or dyke building in Cornwall in general can never be conclusive without dating evidence. While archaeological excavations of dykes rarely produce good dating artefactual evidence as is the case with towns, it would at least reveal how deep the ditches were, if they were rebuilt in the past, did they originally had entrances, if the dykes did exist in sections where agriculture has removed all surface traces and would be an opportunity to apply OSL dating methods that is helping us understand the chronology of other earthworks like hedgerows. It is entirely possible some of the dykes mentioned in this study do not date from the early medieval period and the author is well aware that if they are later medieval or prehistoric in date then the discussion about their function has been rather hypothetical (the earthwork on Stepper Point is far more likely to be a later medieval rabbit warren for example). They may have had more than one function and been reused at different times for different purposes, but at present, defences built by the early medieval Cornish to counter West Saxon raiding seems a likely possibility worthy of consideration.

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Rethinking Offa's Dyke as a Hydraulic Frontier Work

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Building upon a fresh interpretation of Wat's Dyke as a component of an early medieval hydraulic frontier zone rather than primarily serving as a symbol of power, a fixed territorial border or a military stop-line (Williams 2021), here, I refine and apply this approach to its longer and better-known neighbour: Offa's Dyke. This linear earthwork's placement, alignments and landscape context are evaluated afresh using a simple but original comparative mapping methodology. First, on the local level, I show that Offa's Dyke was carefully and strategically positioned to connect, overlook and block a range of watercourses and wetlands at key transverse and parallel crossing points, thus observing and choreographing mobility on multiple axes. Second, I address the regional scale, showing how Offa's Dyke interacted with, and controlled, biaxial movement through and between water catchments parallel and transverse to the monument's principal alignments. Both these arguments inform how the Dyke might have operated on the supra-regional scale, 'from sea to sea' and also 'across the sea', by controlling the estuarine and maritime zones of the Dee Estuary in the north and the Wye/Severn confluence to the south. Integrating military, territorial, socio-economic and ideological functionality and significance, Offa's Dyke, like its shorter neighbour Wat's Dyke (in an as-yet uncertain relationship), configured mobilities over land and water via its hydraulic dimensions and interactions. Together, the monuments can be reconsidered as elements of a multi-functional hydraulic frontier zone constructed by one or more rulers of the middle Anglo-Saxon kingdom of Mercia and operative both in times of peace and conflict.

Keywords: Offa's Dyke, Wat's Dyke, assembly place, coast, hydraulics, water, wetland

Introduction

This article proposes that interpretations of the functions and significances of Offa's Dyke have been altogether too 'dry'. Considering the monument's *flow*, incorporating both overland and wetland mobilities, I here propose a more 'fluid' understanding of Offa's Dyke's placement, alignments and landscape contexts. As a means of surveilling, manipulating and choreographing the movement of people, animals and things, Offa's Dyke was built as more than a 'border'. Instead, as a component of a hydraulic frontier zone for the middle Anglo-Saxon kingdom of Mercia, Offa's Dyke orchestrated *flow* in the early medieval landscape (see also Edgeworth 2011: Chadwick 2016; Bell and Leary 2020). As such, the monument was a multi-functional installation which controlled travel (including raiding and trading) both across and along its line as much as it sought to provide surveillance and military domination of Mercia's western frontier against both Welsh communities and kingdoms and a wider set of neighbouring polities and territories across western Britain and beyond.

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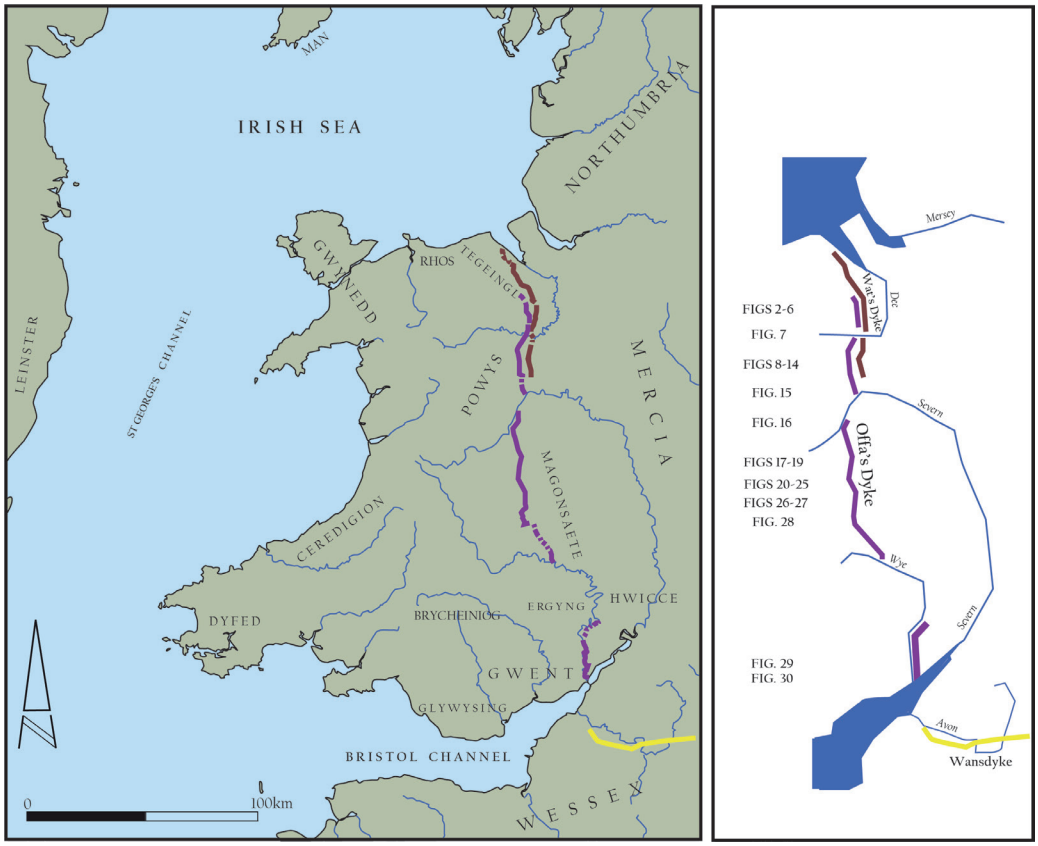


Figure 1: Offa's Dyke, Wat's Dyke and Wansdyke in relation to the political geography of eighth-/early ninth-century Britain (left) with a schematic of their relationships with principal watercourses and estuaries (right)

Background: placing Offa's Dyke

Despite a detailed survey and description of its surviving course by Fox (1955) and summaries of its topographical behaviours informed by further fieldwork by Noble (1983) and by Hill and Worthington (2003; see also Tyler 2001; Squatriti 2002, 2004; Wileman 2003; Malim 2007; Bell 2012; Grigg 2018; Hill 2020; Malim 2020), Offa's Dyke's placement and landscape context have only recently received sustained systematic mapping and critical evaluation. Notable recent work includes the book-length detailed and careful evaluation of Ray and Bapty (2016), which addressed Offa's Dyke's long-distance stances in relation to major uplands, valleys and rivers, as well as its more localised strategic placement and alignment in relation to hills and hillsides, valleys and watercourses (see also now Ray *et al.* 2021; Ray 2022; Figure 1). Building on Ray and Bapty's many insights, Belford (2017), Murrieta-Flores and Williams (2017), Humphreys (2021) and Delaney (2021) have presented original – additional and significant – insights into the monument's placement in relation to specific stretches, views and topography, and thus the monument's impact on movement through the landscape. However, there remains a persistent accidental bias against the

study of Offa's Dyke's many significant interactions with courses and bodies of water and wetland, arising in large part from the circumstance that the monument has survived far better in upland areas away from valleys and plains. Indeed, Offa's Dyke is most commonly considered by archaeologists and the public at large to be an upland phenomenon, visualised and discussed almost exclusively where it skirts hills, crosses ridges and overlooks lower ground, thus away from standing and flowing water. As a result, to date, there has been no systematic comparison and analysis of how Offa's Dyke interacted with water courses and wetlands in its placement, alignments and broader landscape contexts. I contend this has resulted in a sustained and consistent underrepresentation of Offa's Dyke's hydraulic dimensions: both how it surveils and manipulates the *flow* water, but also how it served to control *flow* over land: thus manipulating both mobilities along and across watercourses, wetlands and estuaries. Furthermore, rather than presenting a dichotomy between dryland and waterborne communications, the argument here is that the linear earthwork concerned the control and surveillance of *flow* over land and water.

Some existing studies have presented general statements regarding this topic, with a few specifically proposing how Offa's Dyke affected hydrology and might have instituted hydraulics. Notably, it has been suggested that specific watercourses might have been redirected by the Dyke's placement (Squatriti 2004: 42; Ray and Bapty 2016: 136; reviewed in Williams 2021). Delaney (2021) considered the monument crossing the Herefordshire plain in new detail using Lidar, illustrating how the monument connected and blocked watercourses. Ray *et al.* (2021: 59–60) addressed how the Camlad crossing of Offa's Dyke might have included a bridge: a crucial potential target for future field-based investigations. Finally, the possibility that Offa's Dyke stretched to the Irish Sea has been proposed afresh based on field observations, thus opening up new potential significances for considering the monument's maritime and riverine dimensions (Ray 2020; Ray *et al.* 2021: 63–73). In addition, a previous study has argued that Wat's Dyke – dated to the early medieval period like its longer neighbour – was part of a Mercian 'hydraulic frontier zone' (Williams 2021).

Considering Offa's Dyke's riverine and other low-lying watery associations, and thus building on four critical research questions posed by Keith Ray (2017), I will explore variability in relationships of Offa's Dyke to major and minor river-valleys (Ray's questions 15 and 16) and minor watercourses (Ray's question 17) and how this might relate to other landscape features in such situations (Ray's question 74) (in addition to tackling other questions in Ray's list, notably 1, 2, 5, 7, 9, 11, 12, 13, 14 and 20). By addressing these four valuable and legitimate lines of enquiry, I add a key further and wider query: is it possible to consider Offa's Dyke as a 'hydraulic frontier work' in terms of its precise localised behaviour and within a broader landscape context (Figure 1; see also Williams 2021)?

Method

I proceeded by creating a comparable series of twenty-nine maps of selected key points of interaction between Offa's Dyke with a range of rivers, streams, wetlands and estuaries

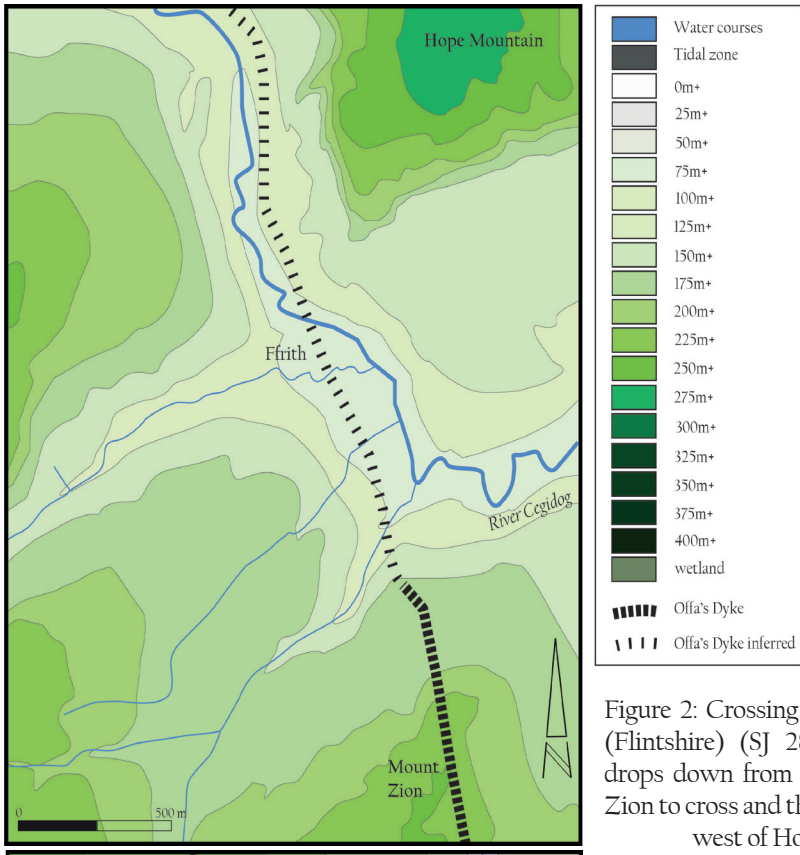


Figure 2: Crossing the Cegidog at Ffrith (Flintshire) (SJ 284 553), Offa's Dyke drops down from the heights of Mount Zion to cross and then follow the Cegidog west of Hope Mountain.

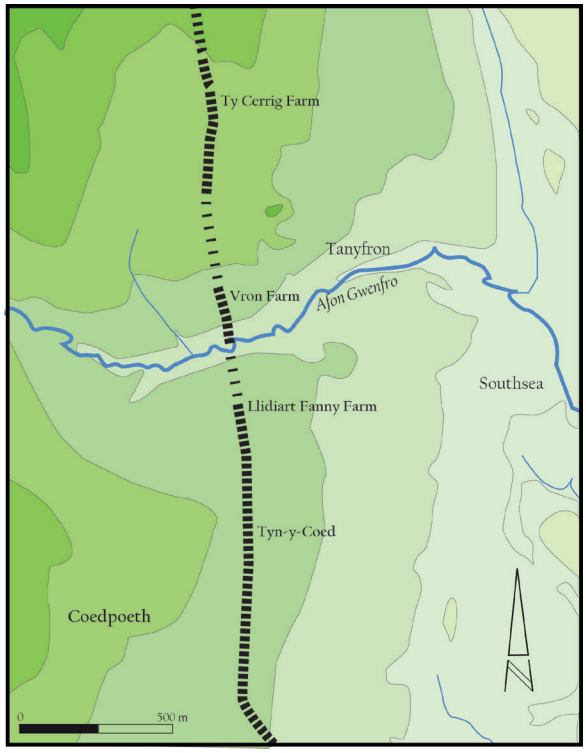


Figure 3: Crossing the Gwenfro (Wrexham) (SJ 292 517) (for key, see Figure 2).

along the full length of the monument attributed to 'Offa's Dyke' from Flintshire in the north to Gloucestershire in the south (following the same methodology applied for analysing twelve select key stretches of Wat's Dyke: Williams 2021). I redrew OS Digimap resources in Adobe Illustrator (presented here in geographical order from north to south: Figures 2–30). This allows clear and direct comparative evaluations of how the Dyke operated in relation to the underlying topography and current watercourses.

The advantages of this mapping are manifold. The simple colour-coded maps denoting every 25m contours using a colour-gradient from white and grey (low-lying land) to very dark green (upland) render very clearly the dynamic interaction between the linear earthwork and the topography (Figure 2). The line of the Dyke itself is marked following the Ordnance Survey and Fox (1955) in which I denote its presence as either 'certain' or 'possible' (Figure 2). 'Certain' here refers to 'surviving' and 'inferred/projected with confidence', whilst 'possible' incorporates both 'traces' and 'uncertain but likely' stretches. This distinction is applied judiciously and consistently, but not in fine-grained detail given the many long-recognised challenges in using surface features to discern the presence and character of the earthwork (Belford 2019; cf. Malim and Hayes 2008). The result is a series of consistent maps to afford easy visual comparison along the monument's line although lacking the fine-grained analysis of earthwork survival attempted by Delaney (2021).

This method has its limitations. Details of vegetation and settlement patterns cannot be easily reconstructed. Likewise, fluctuations in hydrology, including those caused by medieval and post-medieval drainage and canalisation cannot be fully evaluated by this approach (see also Williams 2021). The method thus inevitably simplifies considerable complications and uncertainties regarding the linear earthworks and their landscapes, an issue revealed by the more detailed recording and nuanced mapping criteria drawing upon Lidar instituted by Delaney (2021). Furthermore, given the low frequencies and vagaries of discovery, I make no attempt to map any early medieval find-spots in relation to Offa's Dyke (see Clarke 2020; 2023; see also Clarke this volume). Also, I only occasionally mark prehistoric monuments, notably prominent hillforts proximal to the line of the Dyke.

I anticipate more detailed work will refine the general observations made here. Yet, this simple colour-coded contour mapping produced in ©Adobe Illustrator retains integrity since it: (a) clearly represents the topography of the landscape if details of vegetation cannot be readily inferred; (b) gives sufficient detail of the placement and alignment of the Dyke in relation to that topography; (c) allows a hitherto unavailable comparative evaluation of the Dyke's behaviour along different sections of the Anglo-Welsh borderlands; (d) allows direct comparison with the parallel exercise conducted for Wat's Dyke (see Williams 2021); (e) holds the potential for further comparative analyses with the topographical behaviours of other prehistoric, Roman and early medieval linear monuments.

The next layer of analysis takes us to the macro-scale. As for Wat's Dyke (Williams 2021), this article identifies an additional, new maritime context for Offa's Dyke through its links with

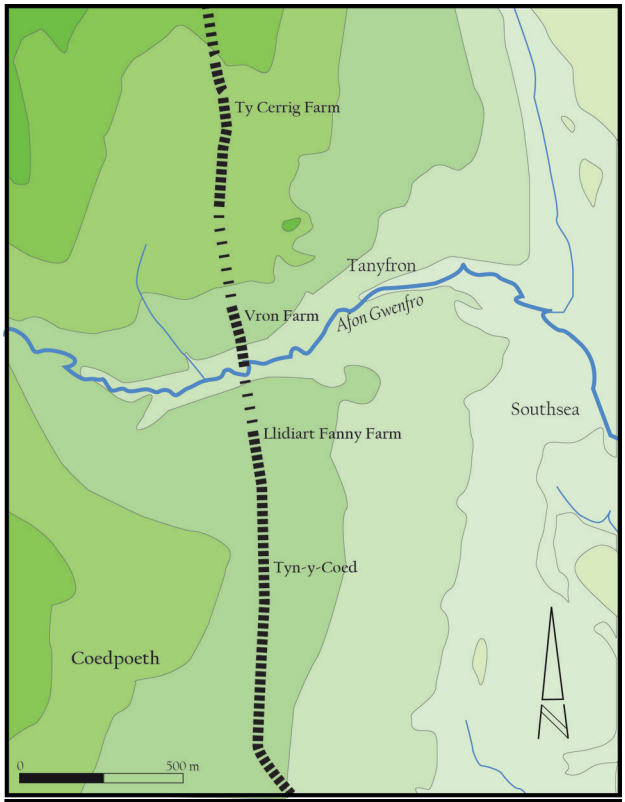


Figure 4: Adjusting its trajectory to make a perpendicular approach to the crossing of the Clywedog (SJ 297 494) and the streams around Cadwgan Hall (Wrexham) (SJ 298 488) (for key, see Figure 2)

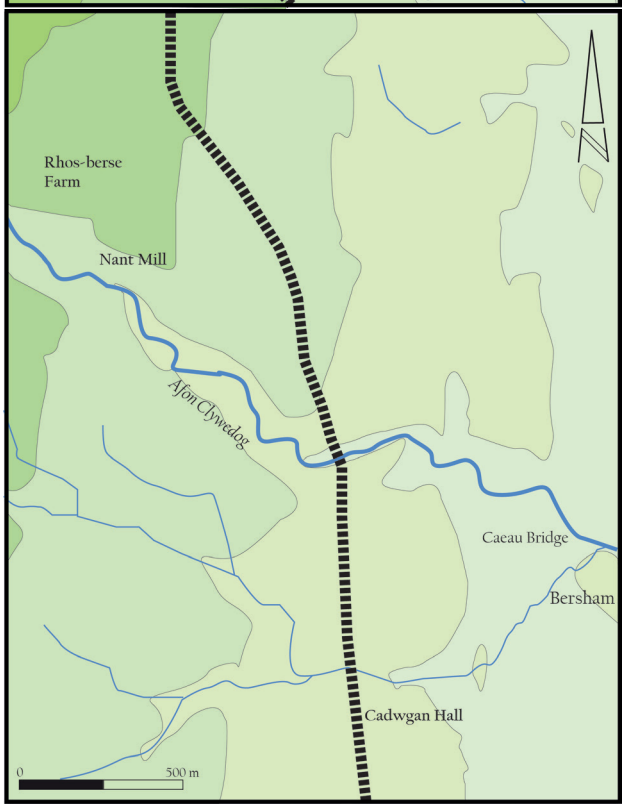


Figure 5: South of Cadwgan Hall (SJ 298 488) and at Pentrebychan (Wrexham) (SJ 299 477) (for key, see Figure 2)

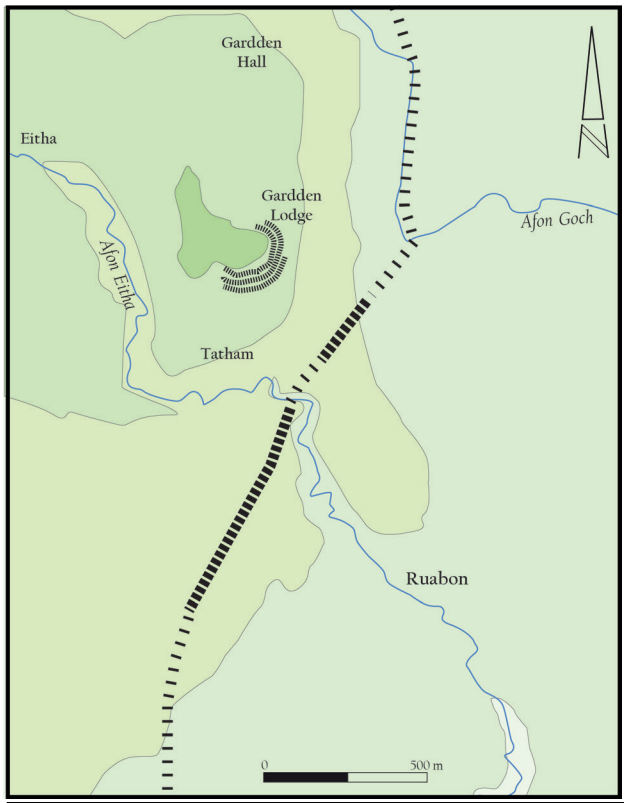


Figure 6: Crossing the Afon Goch (SJ 301 448) and Afon Eitha (SJ 298 443) in relation to Y Gardden hillfort (Wrexham) (for key, see Figure 2)

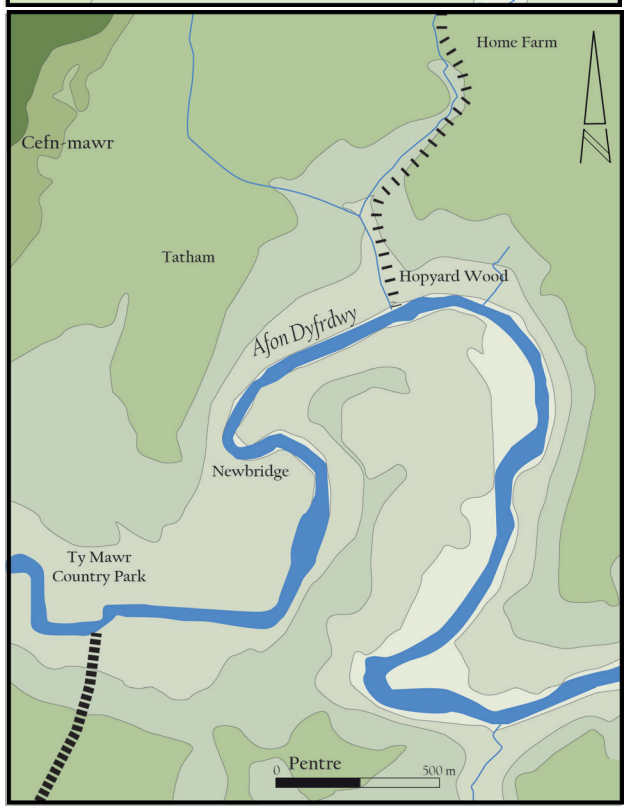


Figure 7: In relation to the Afon Dee, Offa's Dyke is postulated to descend to the river from the north following the eastern edge of a steep creek following a stream at Hopyard Wood (SJ 292 420) and joining the river from the south at steep river-cliffs opposite Ty Mawr Country Park (Wrexham) (SJ 283 410) (for key, see Figure 2)

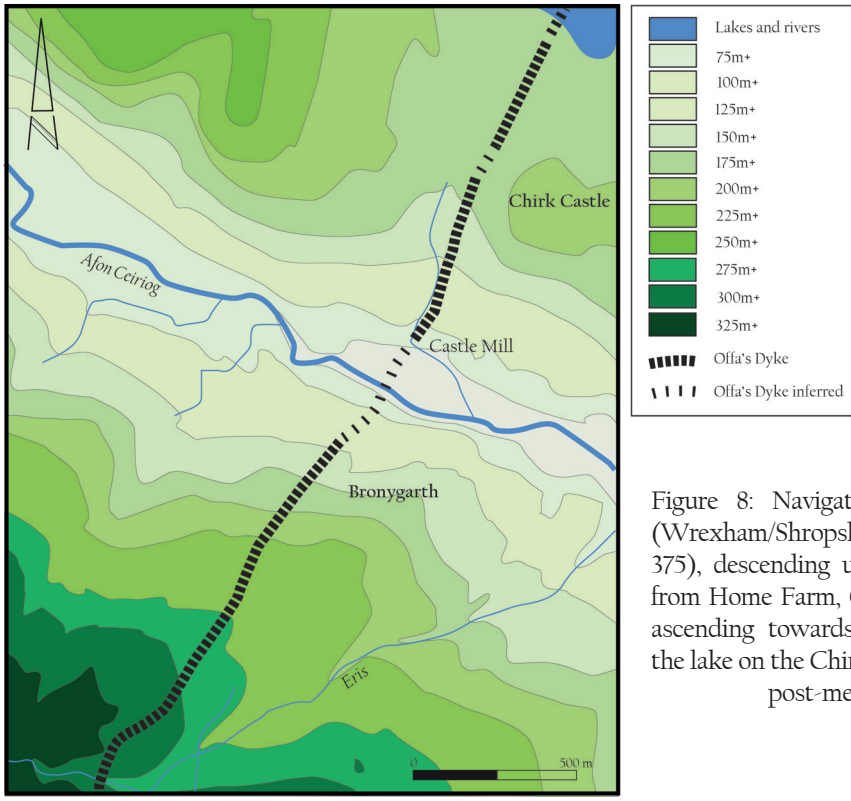


Figure 8: Navigating the Ceiriog (Wrexham/Shropshire) (SJ 264 375), descending utilising a combe from Home Farm, Chirk Castle and ascending towards the Eris. Note: the lake on the Chirk Castle estate is post-medieval

both the Bristol Channel and Irish Sea (see also Griffiths 2010; Swallow 2016). Considering Offa's Dyke's 'flow' – addressing its roles in observing, controlling and curtailing movement over land and also the manipulation of movement in and over water (see Edgeworth 2011) – helps us consider the biaxial mobilities of the linear earthwork on this grander perspective. The idea of a 'hydraulic frontier zone' is thus evoked to conceptualise this scale: regarding Offa's Dyke as monument built to control, curtail and surveil mobilities along and across its course through the early medieval landscape (Figure 1).

Following water courses and wetlands

For a significant fraction of the surviving line of Offa's Dyke, the monument followed river valleys. In doing so, the monument thus utilised the west-facing valley slopes as part of its defence, and allowed the valleys to be visually dominated, thus controlling movement across the Dyke and along its line simultaneously.

While the nature of the frontier remains obscure for where it follows the Wye for c. 32km between Byford south of Garnon's Hill and Lower Lydbrook (Delaney 2021: 97–99; Ray *et al.* 2021: 55–57), arguably the River Wye *became* Offa's Dyke (Delaney 2021: 99). The same applies to a shorter stretch where the Severn might have served as the monument for a stretch of c. 7.8km (Figures 15 and 16). A smaller section occurs along the Dee for c. 2km where Offa's Dyke joins on the southern bank at a dramatic river-cliff

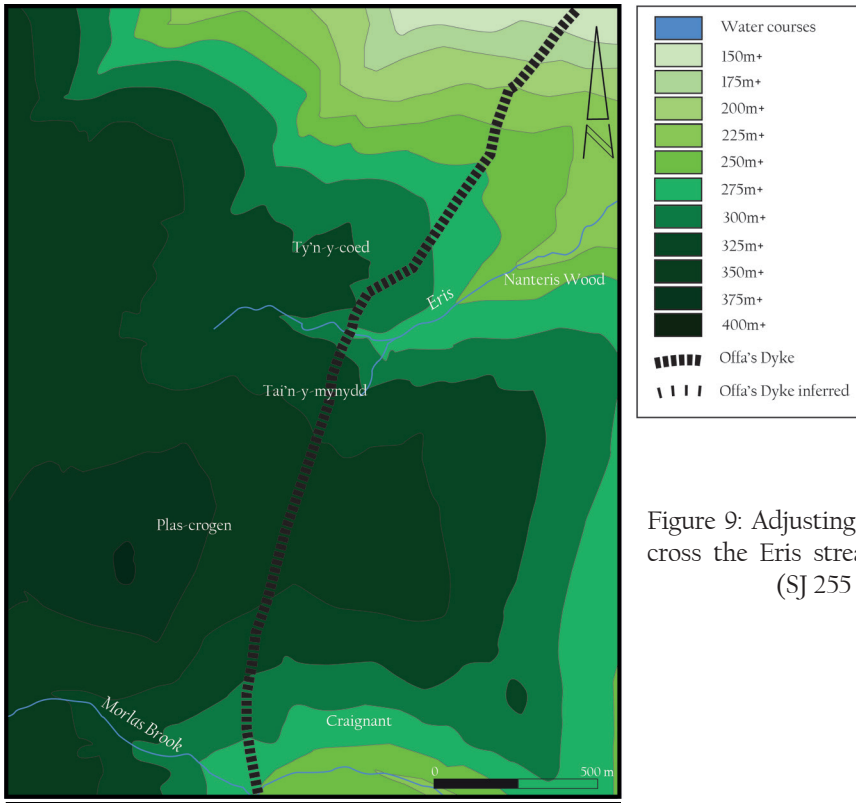


Figure 9: Adjusting its trajectory to cross the Eris stream (Shropshire) (SJ 255 363)

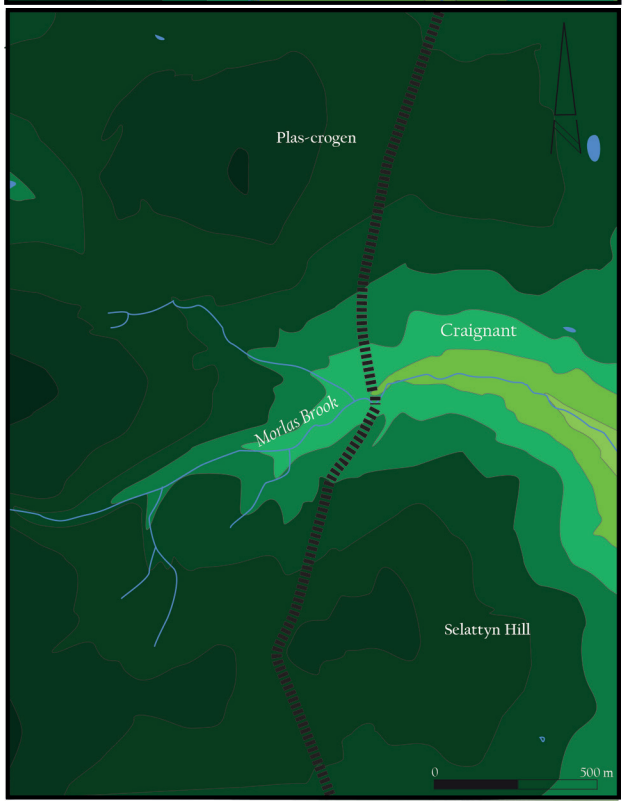


Figure 10: Crossing the Morlas Brook at Craignant (Wrexham/Shropshire) (SJ 252 349) to the east of its confluence with a series of subsidiary watercourses (SJ 252 349)

opposite Ty Mawr Country Park and then seemingly departs from the northern bank east of a stream in Hopyard Wood downstream (1.3km as the crow flies, but closer to 2.1km as the river winds) (Figure 7). A short stretch of the Vyrnwy, for up to c. 500m, might have also functioned in this regard (Figure 14).

There are other stretches where river valleys were utilised as part of the frontier but where the Dyke followed the tops of west-facing scarps overlooking them. The most sustained use of such a stance is along the lower Wye Valley from Lower Lydbrook south to Chepstow (with possible gaps: a distance of c. 25km as the crow flies; Figure 29). A further instance is where Offa's Dyke climbs via Offa's Pool southwards towards Upper Hem before dropping down to cross the Camlad (Figures 17 and 18; see also Ray *et al.* 2021: 58–60). A third stretch is where Offa's Dyke overshadows the Morda from Oswestry Racecourse south to Tyn-y-coed (2.75km) (Figure 12). There is a further short stretch (c. 2km) where Offa's Dyke runs parallel with the Afon Goch south of Johnstown (Wrexham) (Figure 6). The final stretch for consideration is where Offa's Dyke was placed between Llanfynydd and Ffrith (around 1.47km as the crow flies) (Figure 2). In such situations, the Dyke not only commands views westwards over valleys, but would have served to control movement both along and across the rivers they contain.

Smaller, more localised uses of valley-side streams are a further example of the careful use of watercourses in planning the route of Offa's Dyke. Here, steep valley-sides are utilised as part of the defences, as for the northern (south-facing) slopes of the valleys of the Clywedog (Figure 4), the Dee (Figure 7), the Ceiriog (Figure 8) and the Camlad (Figure 18), the southern (north-facing) slope of the Clun valley above Lower Spoad Farm (Figure 23), briefly along a stream below Offa's Pool (Figure 17), and within the valley where the Cascob Brook joins the Lugg (Figure 27).

Put together, it can be argued that the rivers, banks, and slopes of these stretches operated in tandem with, or in replacement of, Offa's Dyke. The use of steep slopes, the valley-sides, river banks and rivers themselves were complementary strategies by which the Dyke transformed itself into a monumentalised dimension of the natural topography. Not only would this positioning have facilitated the surveillance and control of movement along the river and its banks, and allowed the river to serve as part of the Dyke's defensive capabilities, the placement of the Dyke in these locations allowed it to control riverine resources, including mills and fishing.

If Offa's Dyke is taken to be up to 145km long (Ray and Bapty 2016: 1), then the 40km of surviving Dyke following watercourses amount to 27% of its line. This fraction doubles to c. 81km and 56% of its overall postulated line if watercourses where no Dyke survives are taken into consideration. In summary, it is evident that watercourses were crucial to the planning and installation of the monument and thus were integral to its likely multi-functional roles in controlling mobility and dominating the landscape.

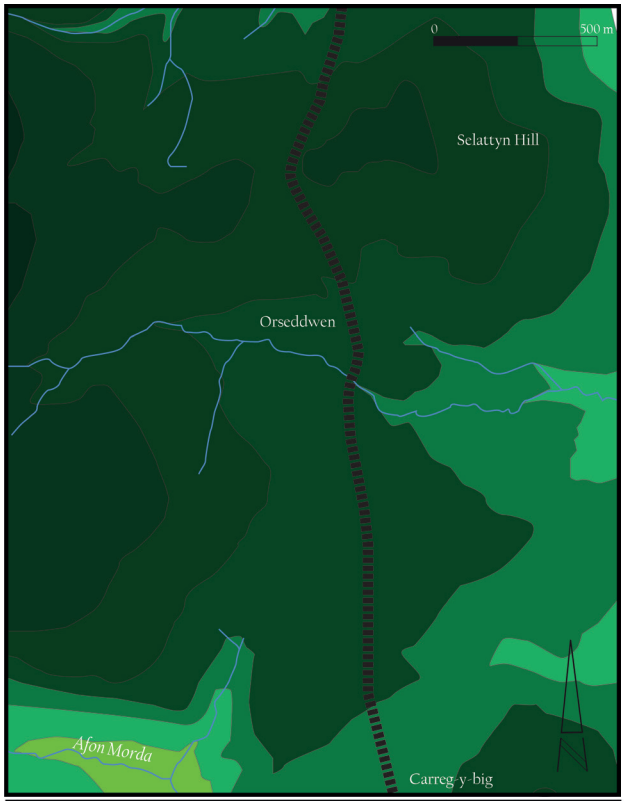
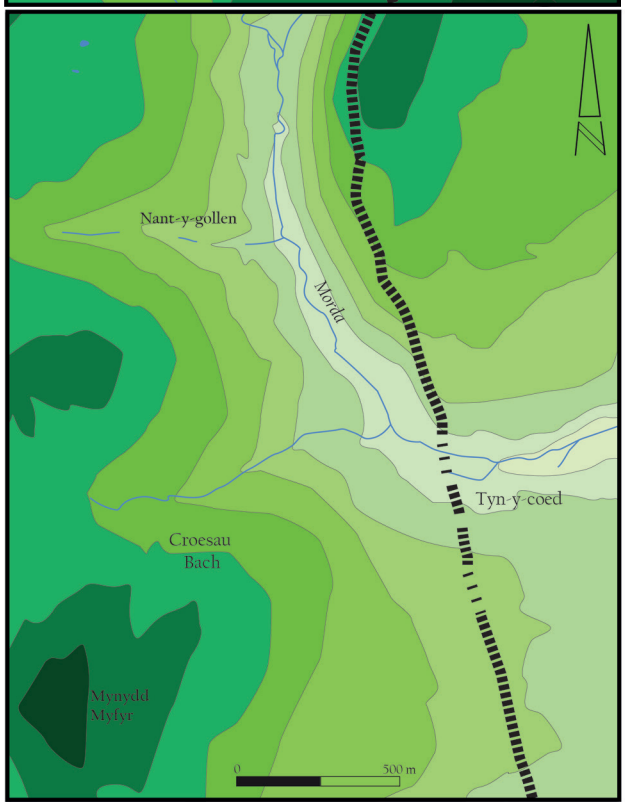


Figure 11: Adjusting its course to cross an unnamed tributary of the Morlas Brook at Orsweddwen (Powys/Shropshire) (SJ 251 335) (for key, see Figure 10)



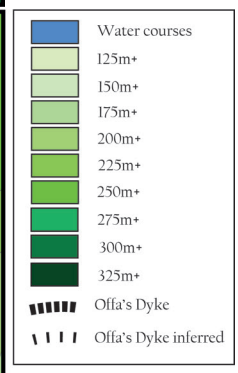


Figure 12: Dropping off the Craig Forda ridge from the north, Offa's Dyke crosses the valley of the Morda at Tyn-y-coed (Shropshire) (SJ 256 282) before rising up the valley side towards Pentre-shannel

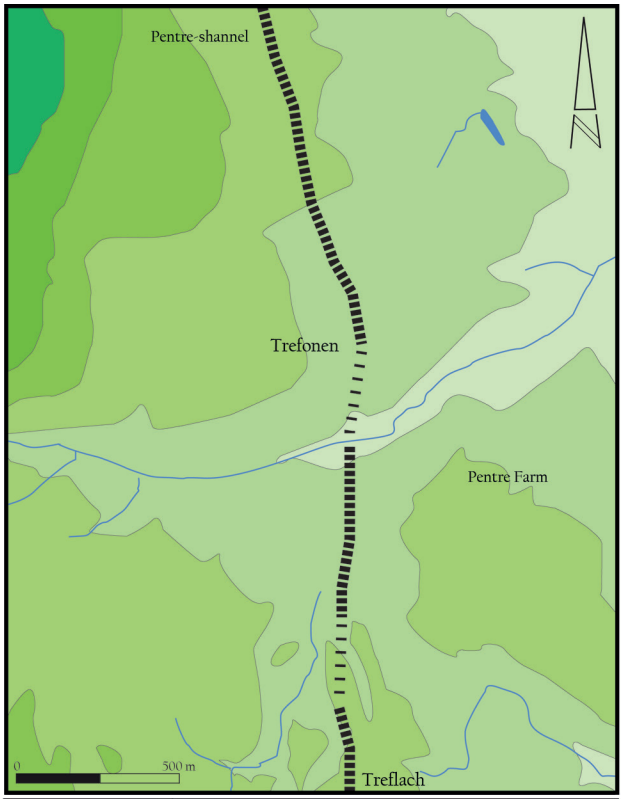


Figure 13: Crossing the unnamed tributary of the Morda south of Trefonen (Shropshire) (SJ 259 265) (for key, see Figure 12)

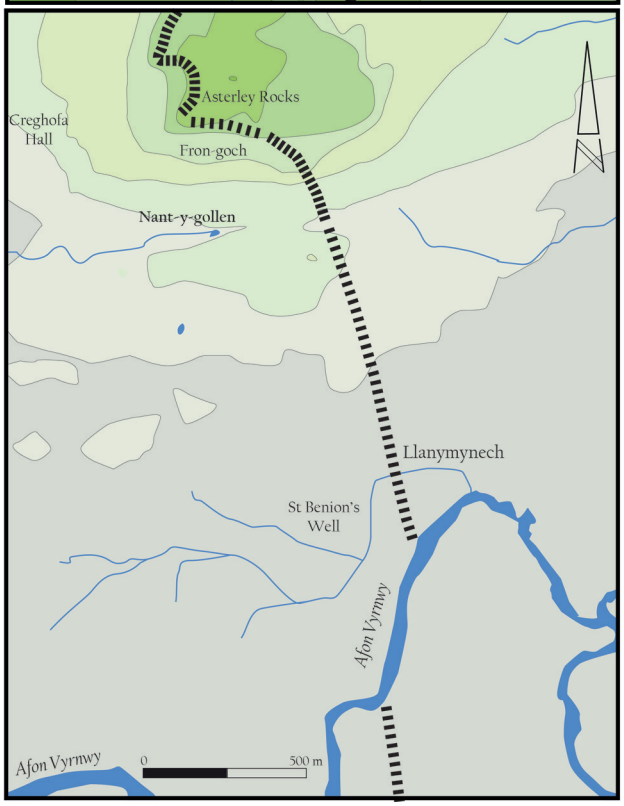


Figure 14: Approaching the Afon Vyrnwy near Llanymynech (Powys/Shropshire), Offa's Dyke likely hit the river (SJ 268 204) and utilised the river bank as part of its course for c. 500m to the south (SJ 267 199)

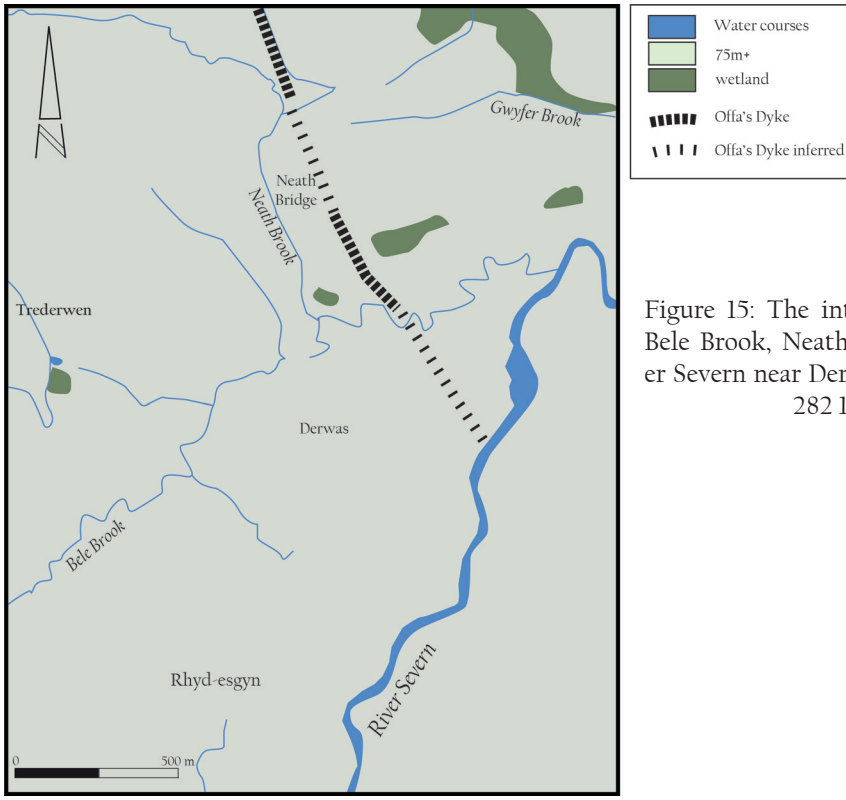


Figure 15: The intersection of the Bele Brook, Neath Brook and River Severn near Derwas (Powys) (SJ 282 155)

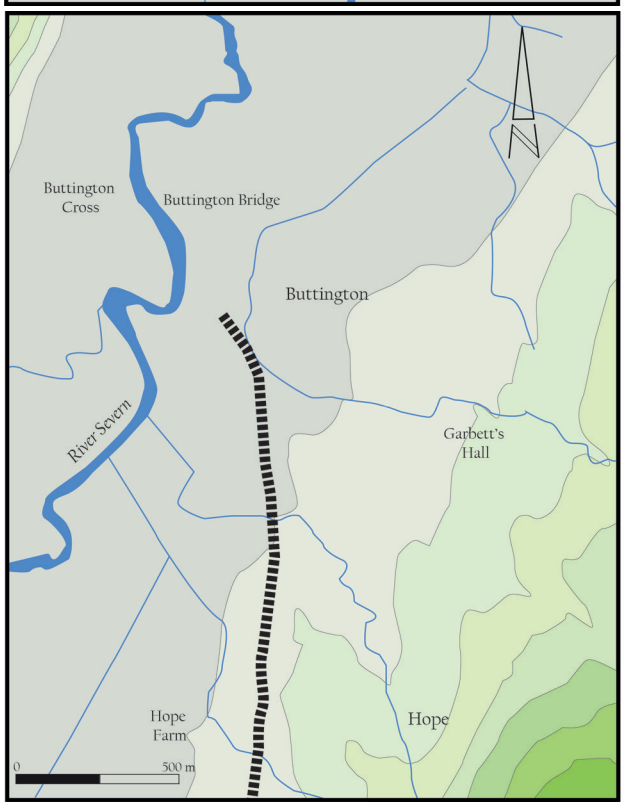


Figure 16: From the River Severn at Buttington (Powys) (SJ 247 087) Offa's Dyke heads southwards gradually rising up from the valley

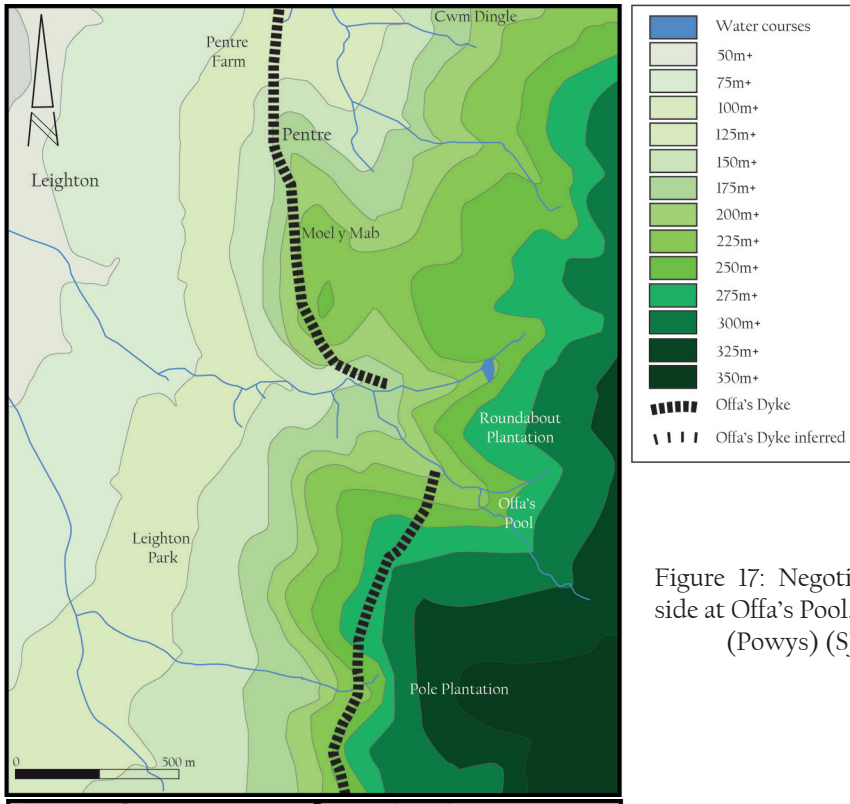


Figure 17: Negotiating the valley side at Offa's Pool, Leighton House (Powys) (SJ 252 048)

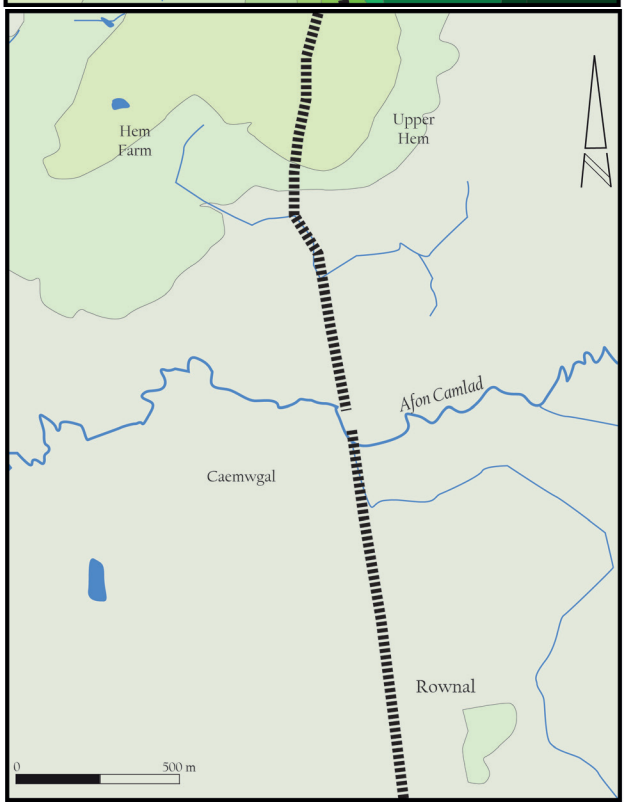


Figure 18: Adjusting its direction at Upper Hem, Offa's Dyke descends into the valley of the Afon Camlad (Powys) (SO 231 992)

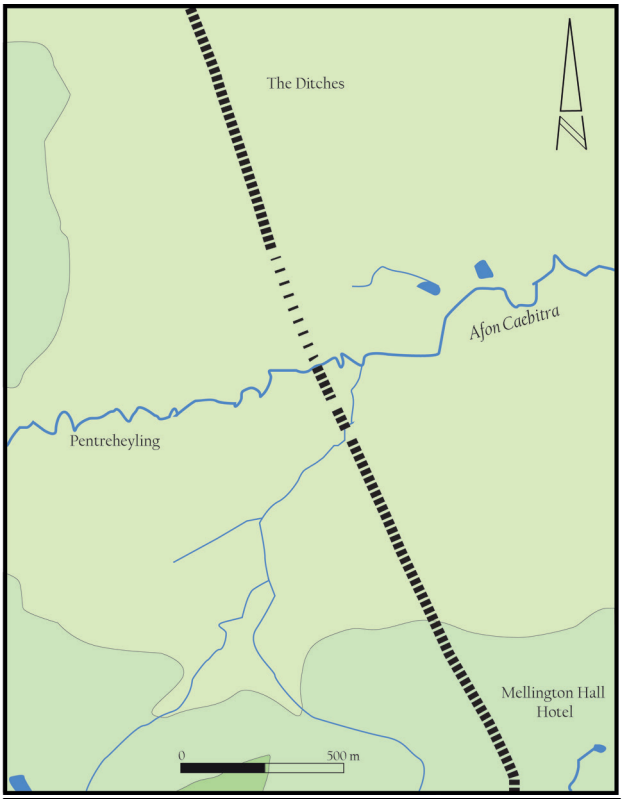
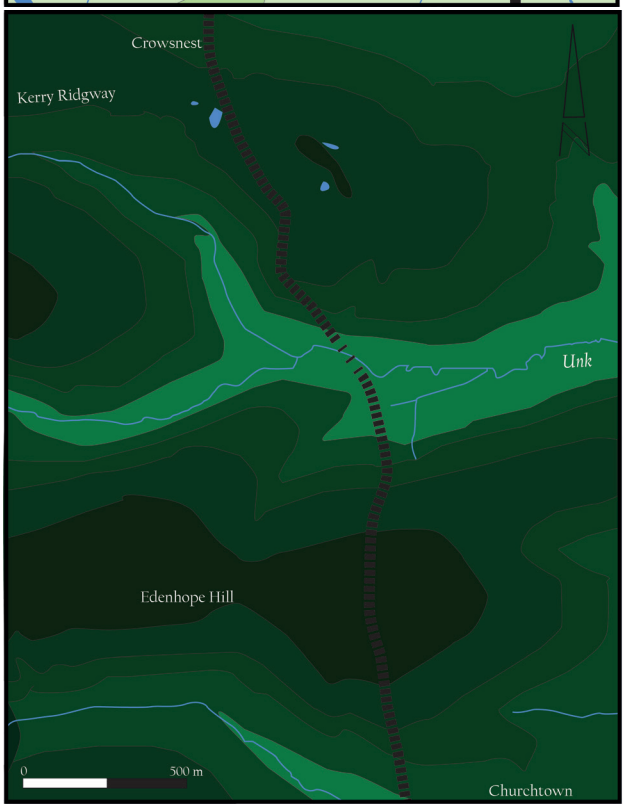


Figure 19: Passing over the Afon Caebitra at Brompton Hall (SO 251 930) and a tributary (SO 252 928) (Shropshire and Powys)



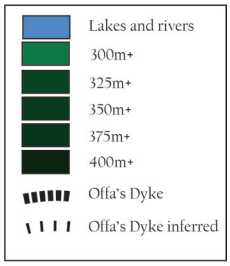


Figure 20: Crossing the Unk in the Clun Forest just east of its confluence with a tributary (SO 261 888) and rising up to Edenhope Hill (Shropshire)

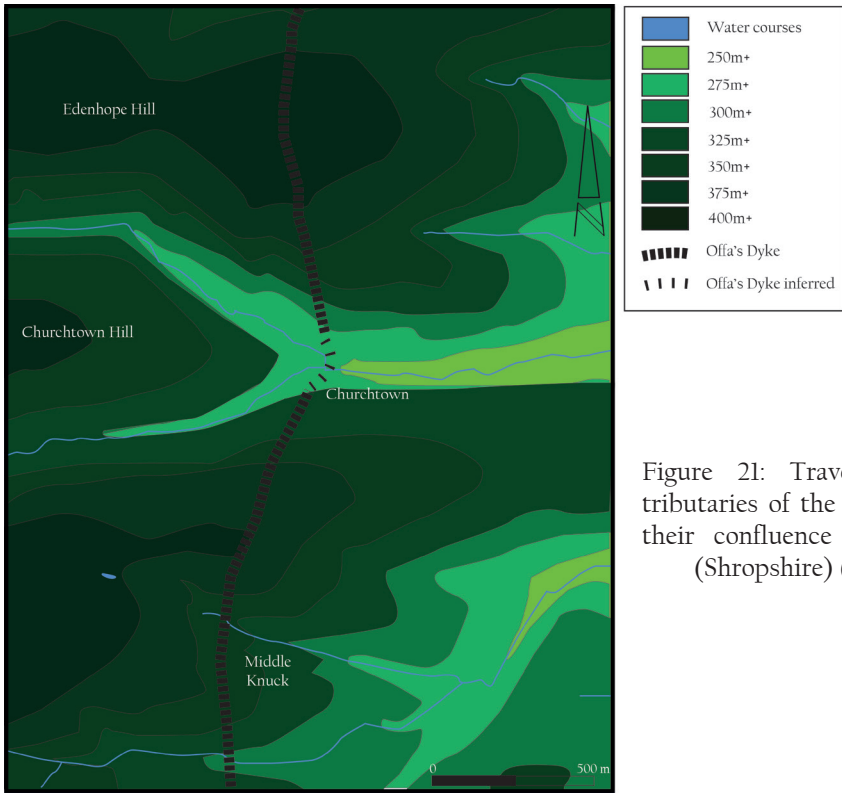


Figure 21: Traversing unnamed tributaries of the Unk just east of their confluence at Churchtown (Shropshire) (SO 263 873)

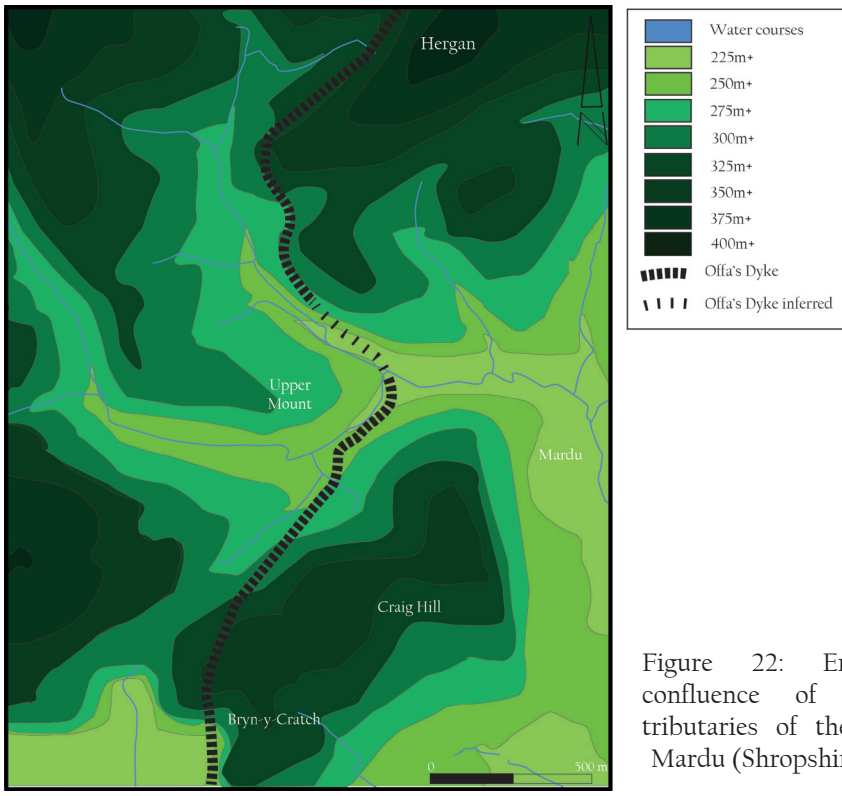


Figure 22: Enwrapping the confluence of two unnamed tributaries of the Clun west of Mardu (Shropshire) (SO 260 842)

Watercourse avoidance

The integration of watercourses in the planning and placement of Offa's Dyke recognised their significance for pre-existing and/or established principal routes of movement but also their potential as weak points in the frontier work where the earthwork had to traverse them. Thus, when not following watercourses and overlooking them, Offa's Dyke often sought to avoid crossing watercourses altogether. There are many examples where the alignment of the earthwork sought to position itself, where possible, above spring lines and upon watersheds. A fascinating example includes the much-discussed situation at Hergan in the Clun Forest where the Dyke weaves between west- and east-flowing streams along the watershed via one tight angle turn and a second more modest readjustment of alignment (Ray and Bapty 2016: 45, 237; Figure 22). Furthermore, the Dyke avoids west-flowing streams south of Treflach (Figure 13) and Porth-y-waen (both Shropshire), Nantcribba (Powys), Llanfair Hill (Figure 24), Cwm-sanaham Hill (both Shropshire) (Figure 25), Hawthorn Hill and between Pen Offa and Evenjobb Hill (Powys). In doing so, while crossing watercourses could not be avoided entirely, the comparative mapping shows multiple instances where the monument's surveyors carefully and precisely negotiated its course between springheads and streams.

Crossing and blocking watercourses

More often than not, Offa's Dyke was compelled to traverse valleys and their watercourses flowing out of the Welsh uplands in order to pursue its overarching course. Multiple commentators have observed how Offa's Dyke behaved in contrasting fashions when negotiating such traverses. For major watercourses, more attention and care in the surveying of the monument has been proposed, whilst minor streams required fewer adjustments to the monument's alignment (Ray and Bapty 2016: 147–148, 151–156). However, this comparative investigation shows more variability than hitherto recognised. Certainly, there are numerous instances where the dykes ran straight across (and thus perpendicular to) smaller watercourses without seemingly adjusting its course. However, upon closer inspection, we can see that this often takes place where a subtle but significant adjustment of course took place on higher ground in order to cross watercourses at precise locations which afford not only a near-perpendicular crossing, but also at places which afford strategic advantages in terms of visibility, crossings and mobility impedance. We can infer that careful surveying took place and precise alignment of the monument was ensured, where possible, to fit specific criteria, even for the smallest of watercourses. Based on this comparative mapping, preferred behaviours included intersecting water:

- just east of confluences of multiple watercourses to minimise the number of required intersections;
- at points where the line of the Dyke can run as close to perpendicular to the watercourse as possible;

- downstream of restricted valleys where the Dyke would struggle to traverse easily and at the perpendicular;
- routeway intersections which operated both to defend and control north-south traffic and control pre-existing fords and/or newly constructed bridges.

These factors apply to where the Dyke crosses the Gwenfro (Figure 3), Clywedog (Figure 4), the unnamed streams near Cadwgan Hall (Figures 4 and 5), Pentrebychan Brook and Aberderfyn (Figure 5), and the Afon Eitha (Figure 6) (all in Wrexham); the Eris (Figure 9) and by the brook at Orseddwen (Figure 11), Trefonen (Figure 13) (all in Shropshire), multiple unnamed streams south of Buttington (Figure 16) and Brompton Hall (Figure 19) (both in Powys). In addition to those places already postulated as potential gates through Offa's Dyke situated away from water courses (see Ray and Bapty 2016: 228–232), such watery locations were also potential gateways through the monument. Equally, these positions might have served to control north–south traffic at fording places across the watercourse as well as affording optimal positions for surveillance and the impedance of west–east traffic.

A further identified placement strategy is where the intersections with watercourses involved a significant point of realignment shifting between blocking and following valleys. Again, these might have been at key 'pinch points' or contrictions in the landscape where fords might have readily existed. The key instances are the Cegidog (Flintshire) where the Dyke follows the river to the north but departs from its course southwards to rise up a steep slope to Brymbo (Figure 2), the Goch (Wrexham) which departs away from the valley to the south of the river crossing (Figure 6) and the Morda (Shropshire) which once more involves a southerly departure from the valley (Figure 12). In such instances, the crossing point over the river is close to the point of angle-turn. Such instances emphasise the importance of rivers in the surveying and building of Offa's Dyke to funnel traffic towards these constrictions. This careful placing orchestrated transverse and lateral mobility through the landscape: both along and across the monument's line.

In other cases, as Ray and Bapty (2016: 135–137) have noted, the Dyke shifts its alignment deliberately to bracket the stream in a concave arc on varying scales allowing visual oversight. This also afforded the impression of the Dyke was wrapping around and thus imposing for those approaching it along valley from the west. This is demonstrable where Offa's Dyke crosses the Ceiriog at Bronygarth (Figure 8) and at Craignant (Shropshire) crossing the Morlas Brook (Figure 10). Further south in the Clun Forest examples include Churchtown (Shropshire) (Figure 21) and west of Mardu Farm (Shropshire) (Figure 22), as well as a wider curve crossing the Clun itself near Bryndrinog (Shropshire) (Figure 23).

A further variant is when the arc is one-sided. Examples include the approach to the Camlad (Figure 18), the Dyke's crossing of the Unk (Figure 20), the approach to the Redlake north of Llanfair Hill (Figure 24), the Teme at Knighton (Powys) (Figure 26), the Wylcwm Brook south of Knighton (Figure 26), at Gilfach Wood above the crossing of the Lugg (Powys) (Figure 27) and at Brockweir along the Wye (Figure 28).

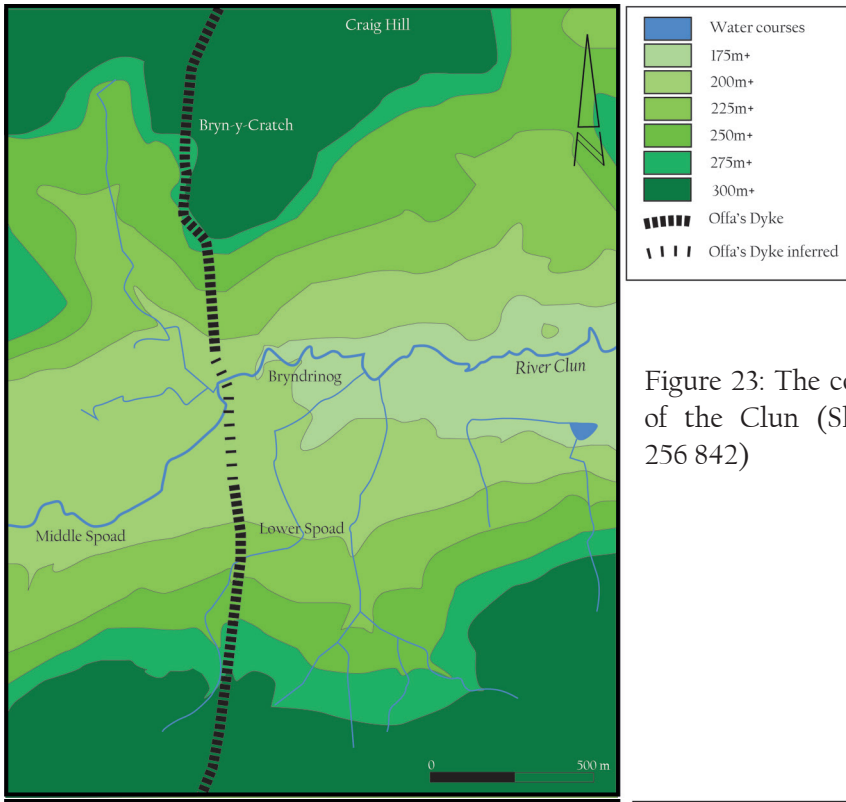


Figure 23: The concave crossing of the Clun (Shropshire) (SO 256 842)

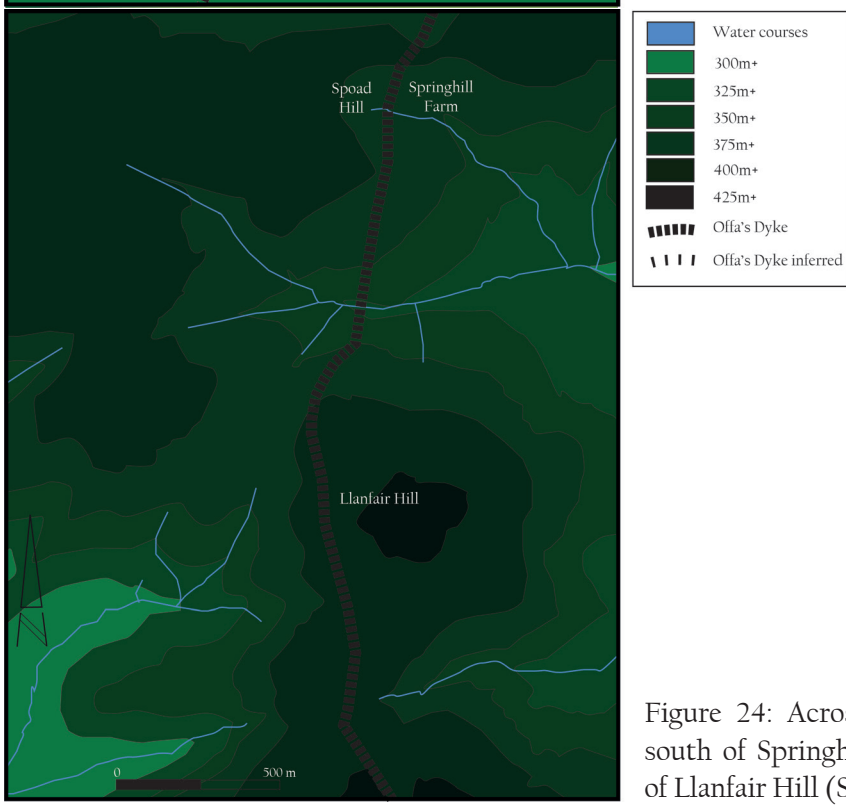


Figure 24: Across the Redlake south of Springhill Farm, north of Llanfair Hill (SO 253 800)

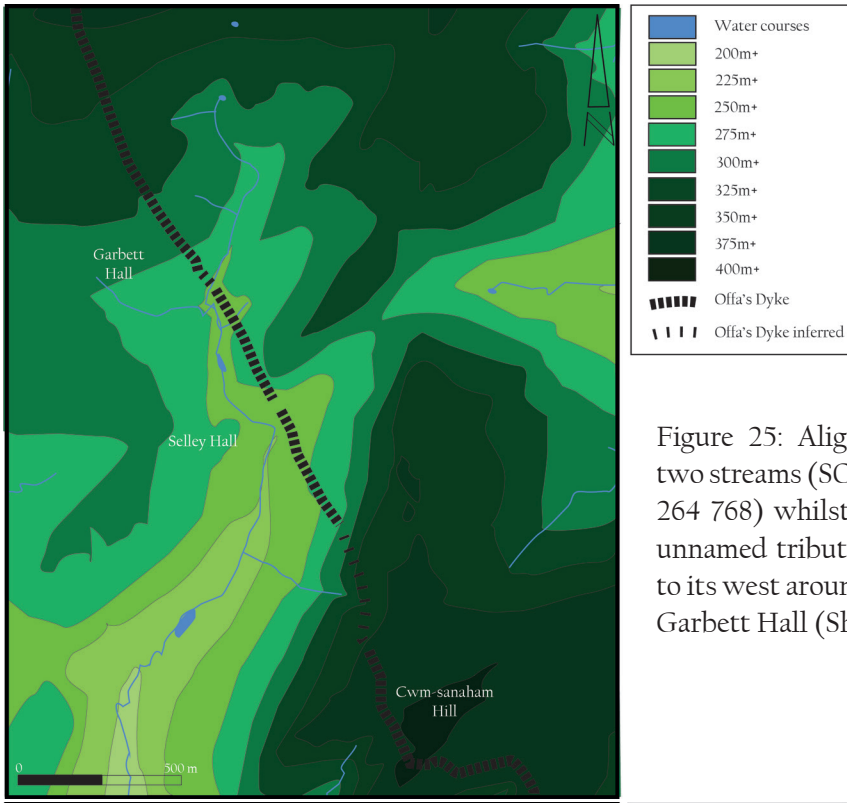


Figure 25: Aligned to traverse two streams (SO 265 769 and SO 264 768) whilst overlooking an unnamed tributary of the Teme to its west around Selly Hall and Garbett Hall (Shropshire)

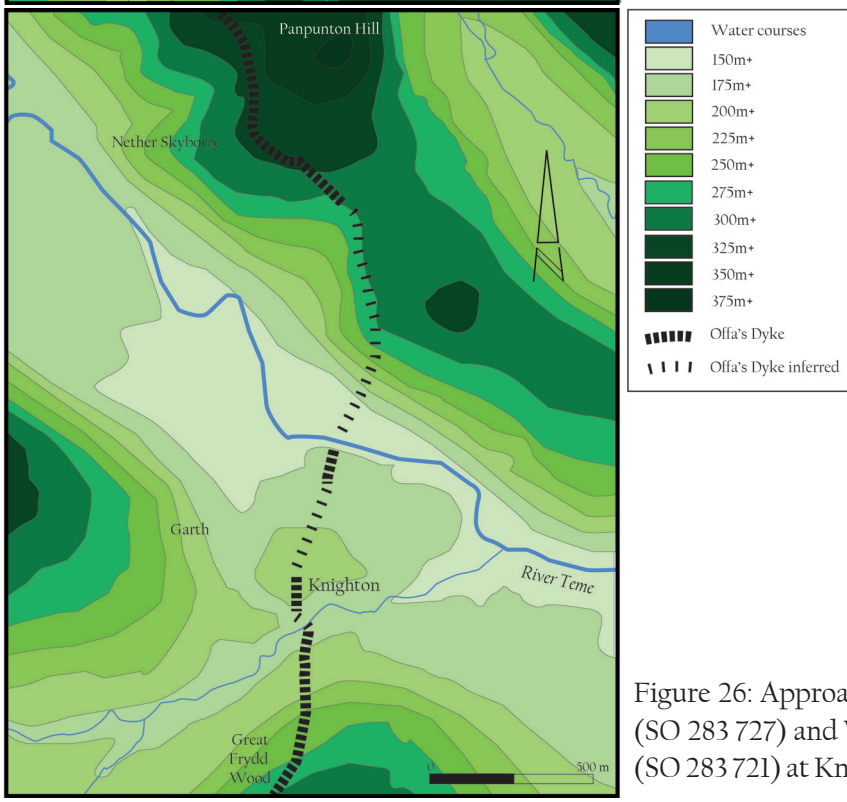


Figure 26: Approaching the Teme (SO 283 727) and Wylcwm Brook (SO 283 721) at Knighton (Powys)

In all these instances, the Dyke adjusts to approach the stream or river and/or uses the watercourse as a point of adjustment. In doing so, the river and stream crossings are points of control at natural movement-constrictions and route convergence. We can imagine multiple land routes meeting from the west at such positions: key locations from where raids and other military expeditions might strike out westwards from. Such positions would also serve for people brought their livestock and trading goods in order to utilise gateways through the Dyke and where unwelcome and raiding groups might be observed and intercepted. Likewise, we can envisage people and animals moving along the line of the Dyke, patrols and traders alike, utilising these stream and river crossings as fords or bridges (see also Ray *et al.* 2021). Such components might have encouraged such places to serve as moots: locations for legal assembly (Pantos 2004).

Islands of assembly?

By following and blocking watercourses, Offa's Dyke was placed to channel and surveil movement through the landscape, and control its resources. Yet there is a further tantalising dimension to the hydraulics of the monument that deserves of our attention. Having identified the broad pattern of behaviours in relation to water, a distinctive subset of relations can be discerned that prompt further discussion. There are five principal instances where Offa's Dyke behaves in a notably different way and these are all at potentially significant and strategic locations in the line of the monument. In such situations Offa's Dyke chooses *not* to align itself below the confluence of multiple streams, either by adapting its line in a concave arc, or else to approach perpendicularly to them. Instead, the Dyke cuts across multiple stream-lines, resulting in the creation of inter-fluvial 'islands' framed by two streams and the line of the dyke. While hydrologies have altered in the last twelve centuries since construction, and the modern stream lines might not reflect the precise routes of rivers in the late eighth century, these remain potentially significant divergences in the patterns of placement for the Dyke identified elsewhere along its course.

The five instances, from north to south are:

- The crossing of the valley of the Cegidog and the Nant Ffrith and a smaller unnamed stream (Figure 2).
- At the crossing of the Vyrnwy and the stream running from St Bennion's Well south of Llanymynech (Figure 14);
- At the crossing of the Neath Brook as Offa's Dyke approaches the Severn near Trederwen (Figure 15);
- The crossing of the Caebitra and a side stream at Brompton Hall (Powys) in the Vale of Montgomery (Figure 19);
- The crossing of the Riddings and Hindwell brooks between Herrock Hill and Burfa Bank (Powys) (Figure 27).

A sixth possible instance represents the inverse situation: the inter-fluvial island between the Wye and the Severn is created by Offa's Dyke's southern terminus and lies south/outside its defences (Figure 30).

It is important to reiterate that, at the time of writing, we have no archaeological evidence to verify the activities and significance of these valley-floor locations, as with other points where Offa's Dyke crosses over valleys and thus watercourses. Yet the northernmost, at Ffrith, is beneath a modern village at a point where a Roman station had existed (Fox 1955: 40–44). If not incidental to other design factors (i.e. if not a compromise to satisfy longer distance trajectories for Offa's Dyke), one scenario is that these constituted valley-floor assembly places and muster points at key nodes along the line of Offa's Dyke. These locations were overlooked by higher ground and thus readily protected from surprise attack from all directions. Here, troops might gather, markets might take place, and animals might be grazed, akin to later prehistoric valley or marsh forts. At each case, the Dyke's crossing of the valley coincides with historic fording points, suggesting that these locations were certainly strategic as points of movement both north–south along the line of the Dyke and west–east across its line.

It appears that the comparative mapping of Offa's Dyke has identified strategic points of control, perhaps garrisoned, or for seasonal mustering. In this regard, we might consider them the late eighth-century Mercia's equivalents of the Pillar of Eliseg, postulated as an assembly place and possible royal inauguration site for Mercia's rivals in Powys (Murrieta-Flores and Williams 2017; cf. Pantos 2004). Each was situated in defensible, overlooked and protected locations where in times of peace the fordable watercourses offered refreshment for animals and people and livestock might be corralled easily and traded or exchanged before being driven eastwards into the Cheshire, Shropshire and Hererfordshire plains. Conversely, in times of raiding, warriors might muster here before striking out westwards.

Notably, each of these five locations is situated at, or very close to, one of the major shifts in 'stance' of the Dyke on its route from Chepstow to Treuddyn, as identified by Ray and Bapty (2016: 128). This in itself might explain the break with tradition at these locations: the builders of the Dyke had bigger priorities in terms of long-distance trajectories that they were willing to depart from prioritising the control of watercourses. Perhaps elsewhere along the line, prehistoric hillforts were deployed in this fashion too (Belford 2017). Indeed, in some instances, we might envisage them operating in pairs: the Vyrnwy example is situated beneath a prominent Iron Age hillfort at Llanymynach (Figure 14), the Trederwen example is overshadowed by the Breidden (Figure 15) and the Hindwell Brook lies beneath Burfa Bank (Figure 27).

Riverine stances and the sea: regional and supra-regional hydraulics

Building on Fox's (1955) and Hill and Worthington's (2003) works, Ray and Bapty (2016: 123–129) have already explored how Offa's Dyke was planned and placed according

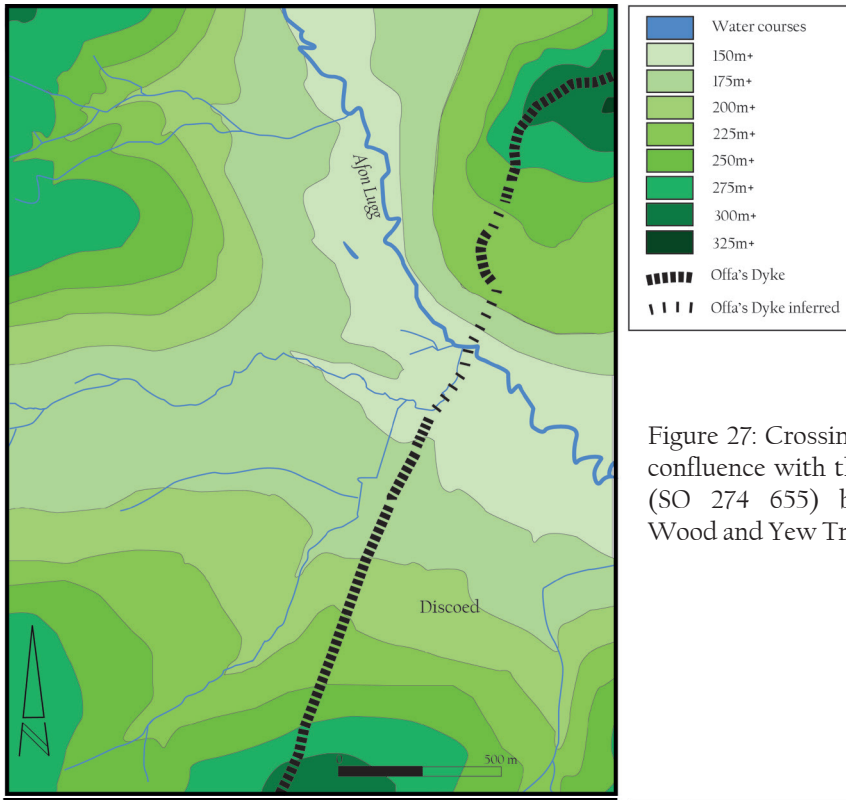


Figure 27: Crossing the Lugg at its confluence with the Cascob Brook (SO 274 655) between Gilfach Wood and Yew Tree Farm (Powys)

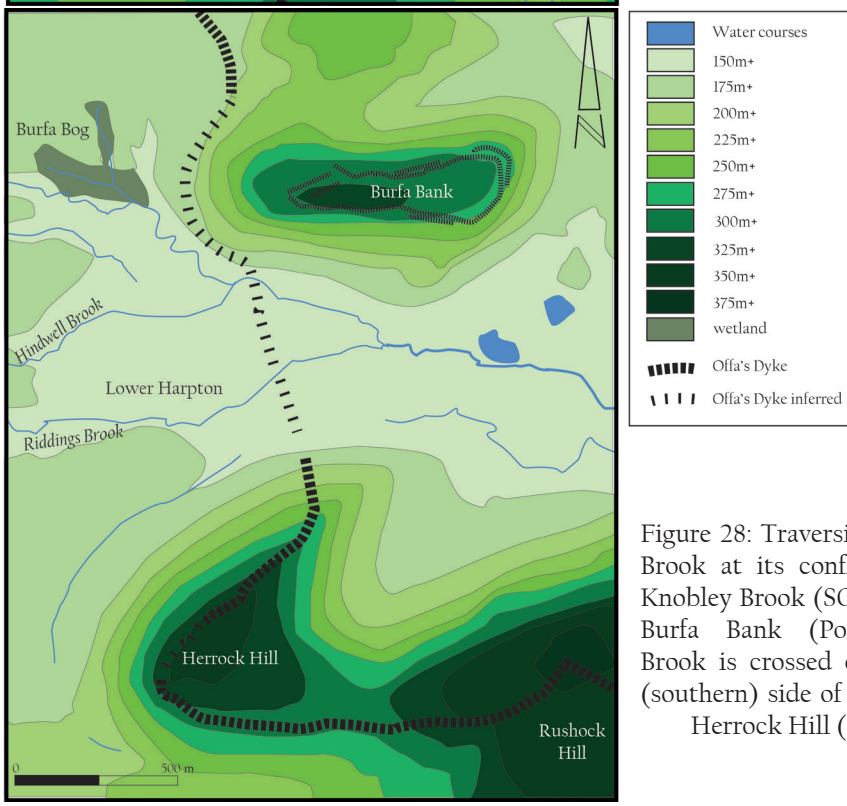


Figure 28: Traversing the Hindwell Brook at its confluence with the Knobley Brook (SO 279 607) below Burfa Bank (Powys). Riddings Brook is crossed on the opposing (southern) side of the valley below Herrock Hill (SO 280 604)

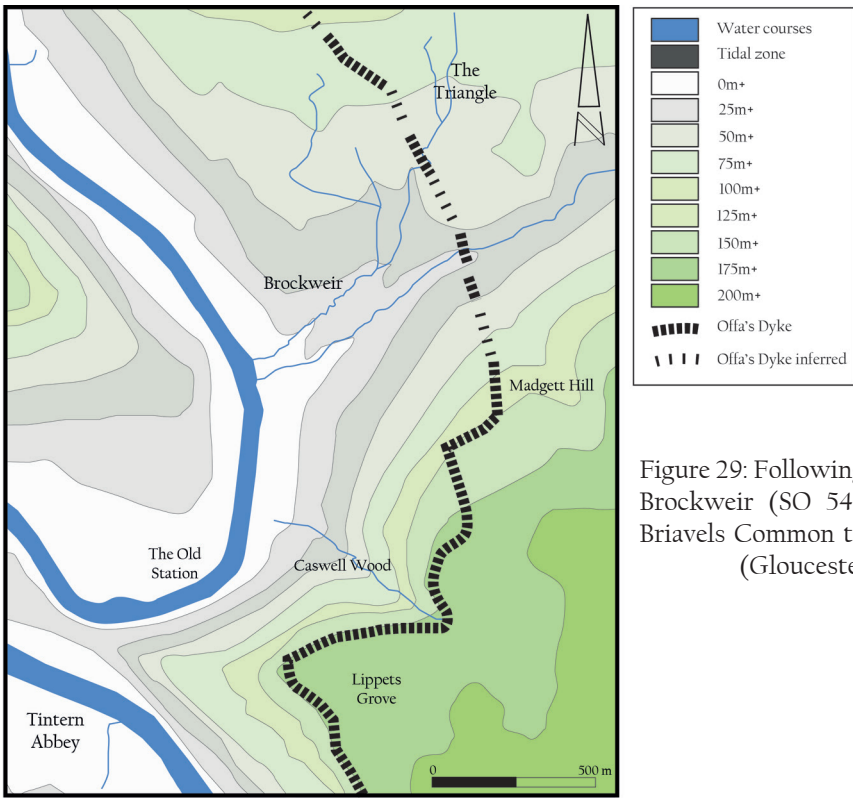


Figure 29: Following the Wye above Brockweir (SO 545 014) from St Briavels Common to Lippets Grove (Gloucestershire)

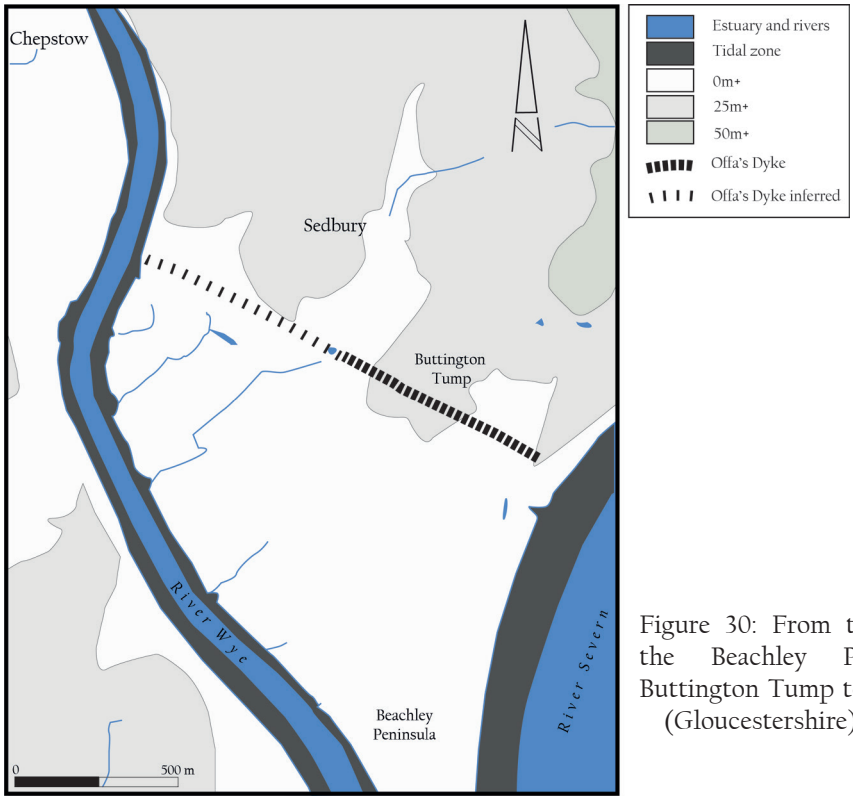


Figure 30: From the Wye across the Beachley Peninsula past Buttington Tump to Sedbury Cliffs (Gloucestershire) (SO 552 928)

to broader stances through the landscape linked to key river valleys on the threshold between upland and lowland Britain as well as postulated political boundaries between Mercia and Welsh rivals, notably Powys. Crucially, they identify the context of its building not only in relation to Wales, but of 'wresting control of north-central Britain from Northumbria and southern Britain from Wessex' (Ray and Bapty 2016: 125). Here, I wish to adapt Ray and Bapty's figure 4.3 to illustrate the Dyke's relationships with key major river valleys. This perspective is supported by more recent work on the monument, particularly its course south from Rushock Hill towards the Wye (notably Delaney 2021; Ray *et al.* 2021) and, in the north, Offa's Dyke's relationship with the Dee and Alyn (Figure 1). For while further fieldwork is needed to explore potential stretches of Offa's Dyke north of its traditionally ascribed terminus at Treuddyn (Ray *et al.* 2021: 63–73), from the stretches already confirmed from Ffrith north to Llanfynydd and Coed Talon (Figure 2), and particularly through its relationship here protecting the western slopes of Hope Mountain, it is possible to appreciate how the monument dominated the Flintshire valley and coast. Although associated with no demonstrably early medieval archaeology, Hope Mountain clearly possessed a huge strategic significance with its expansive views over both the Dee estuary and the Flintshire coastal plain approaching Chester.

Therefore, the choice of Offa's Dyke to encapsulate both the heights at Mount Zion above Brymbo south of the Cegidog, and then Hope Mountain itself, created a strategic zone which dominated and thus controlled movement into the Cheshire Plain from the west over land and water (Figures 1 and 2). Any hypothetical continuation of Offa's Dyke north, or extension of Mercian forts or stations in the coastal zone (currently unidentified and situated closer to the Dee estuary and Irish Sea) would have been in direct communication with their equivalents along Offa's Dyke via beacons. So even though much remains uncertain about Offa's Dyke's northern extent, its defence of Hope Mountain connected it to the control of lead resources on Halkyn Mountain, the Dee and the Wirral peninsula and the Mersey beyond. From above the northernmost currently confirmed and attested stretches of Offa's Dyke between Treuddyn and Llanfynydd, Hope Mountain secured vistas north to Moel-y-Gaer at Halkyn Mountain and thus onwards to the Irish Sea. Simultaneously, from Hope Mountain those surveilling the line of Offa's Dyke gained views north-east across the Dee and Mersey estuaries towards the territories of the middle Anglo-Saxon kingdom of Northumbria. In this position, Offa's Dyke not only presents itself towards, and seeks to control movement through the landscape between Mercia and neighbouring Welsh Kingdoms, it also faces north and north-east towards the rival Northumbrian kingdom.

A similar arrangement can be proposed to the south of Offa's Dyke across the Severn Estuary. As mentioned above, there has been debate regarding whether Buttington Tump is a part of Offa's Dyke. However, the decision to place a linear earthwork to cut off, and thus face off against the Beachley Peninsula can now be seen as part of an adapted strategy to that found elsewhere along the length of the monument. Here, the traverse between the Wye and the Severn created a further 'island' to those identified on the course of the monument discussed above, but this time the demarcated zone is

to the south of the monument beyond its ditch (Figure 30). More broadly, the entire length of Offa's Dyke along the lower stretches of the Wye, from Tutshill north to Tiddenham Chase, can be understood as not only surveilling and controlling movement from the west, but also simultaneously from the south and east as well. In this regard, it is worth noting that not far east of the line of Offa's Dyke where it looms over the Wye from Spital Meend Fort to the Devil's Pulpit above Tintern (Ray *et al.* 2021: 38–44), one is afforded vistas from Tiddenham Chase south-east over the Severn. In other words, whilst guarding and controlling movement along and across the Wye, here at its southernmost end Offa's Dyke also looked south and east towards the territories of the middle Anglo-Saxon kingdom of Wessex. This kingdom arguably constructed Wansdyke broadly contemporaneously with the building of Offa's Dyke (and perhaps Offa's Dyke or Wansdyke was inspiration for the other, whichever was constructed first) (Reynolds and Langlands 2006). It is worth pointing out that, while not intervisible and facing in different directions, Wansdyke and Offa's Dyke are reflections of each other if the Severn Estuary is taken as a plane of symmetry. As such, it is legitimate to consider them 'in dialogue' with each other across this major communication artery of western Britain.

Hence, the terminal stretches of Offa's Dyke west of Hope Mountain and down to the Wye's confluence with the Severn are key to understanding how Offa's Dyke visually dominated and physically impeded mobility in the early medieval landscape (Figure 1). The very fact that the only near-contemporary (late ninth-century) description of Offa's Dyke, that of Bishop Asser writing the biography of King Alfred of Wessex, defines it as running from 'sea to sea' should have garnered more interest in the maritime and riverine associations of both Offa's Dyke and Wat's Dyke (Ray and Bapty 2016: 334). Whether 'accurate' or not, the rhetorical and spatial 'reach' of the monuments stretched out over sea lanes as well as protecting land and water routes to its east (see also Williams 2021; Ray 2022).

Whether the bank-and-ditch extended to the sea or not, it is essential to regard Offa's Dyke (as with Wat's Dyke: see Williams 2021) with regard to not only riverine and estuarine, but also maritime mobilities. Indeed, when Offa's Dyke and Wat's Dyke are mapped in relation to Blair's map of historic watercourses, it becomes clear how they operated in relation to the Irish Sea, the Bristol Channel and movement between the Dee and Severn water catchments, controlling a corridor of land and water transportation (Blair 2007; see also Oksanen 2019). The entire construction of these monuments appears to be about connecting the sea and two of the Britain's major water catchments: the Dee and the Severn (Figure 1). For while Wat's Dyke certainly did not run 'from sea to sea', it did most assuredly end at the north at an impressive fortification, now lost, but enshrined in the place-name of Basingwerk (the 'fortification of the people of Basa'). In this situation, Wat's Dyke controlled coastal and waterborne traffic along and across the Dee estuary as far as Overton where it was historically navigable (Oksansen 2019). We can postulate that from around here, goods might be transhipped the c. 17km land route between Overton and Maesbury from when traffic could pass on the Morda, then the Vyrnwy and thus down the Severn.

Offa's Dyke and Wat's Dyke protected and controlled north–south land transport routes linking the Dee and Severn watersheds. Wat's Dyke achieved this by stretching only a fraction of the distance of its longer neighbour. Indeed, the postulated-extension of Wat's Dyke as far south as Maesbrook would make sense in regards to protecting transportation *along* as well as *across* its line via land and water (Worthington Hill 2019). This arrangement is comparable to that entertained for understanding the water and land routes being controlled by the Danevirke: blocking north–south land communications and protecting maritime communications between the Baltic and North Sea along its line (cf. Tummuscheit and Witte 2019). It also leaves open the possibility of greater understanding of Mercian coastal forts and landing points were these to be discovered in the future. Likewise, both at its northern and southern extents, Offa's Dyke uses prominent landscape situations to visually control waterborne traffic as well as coastal land routes. The dual connections afforded by each terminus afforded communication nodes with rival Anglo-Saxon kingdoms as well as those polities in Wales.

Previous commentators have attempted to describe these landscape relationships in terms of one plane of movement: west to east. Yet in considering the four terminals of the two dykes, in each case we can understand them in relation to external relationships north and south across sea and estuary, as well as west to east along rivers. So, while there has been a tendency to focus on how the dykes block rivers, both Offa's Dyke and Wat's Dyke controlled and managed Wales and its rivers but also dominated coastal and estuarine traffic and north–south land routes to their east. Notably, Wat's Dyke achieves this relationship over a shorter distance, but in doing so loses its close interaction with West Saxon and south Walian territories. This would certainly make sense if Wat's Dyke were indeed considered a later, early ninth-century work, when Mercia's waning power and shifting relations meant it required closer attention upon its north-western frontier to counter new rivals in the form of Gwynedd (Malim and Hayes 2008; but see Fitzpatrick-Matthews 2020).

Conclusion

Building on recent insights into the placement and landscape context of Offa's Dyke and revealed by comparative mapping of the monument for the first time in relation to topography and watercourses, Offa's Dyke is here interpreted as manipulating and orchestrating the biaxial *flow* of goods, animals and people across and along watercourses from the Dee to the Severn and Wye and along the adjacent coastlinwes. This research has implications for not only understanding the Offa's Dyke where confirmed, but also in informing ongoing research attempting to identify its presence in as-yet-uncertain locations (Delaney 2021; Ray *et al.* 2021).

Notably, the monument's behaviour in relation to estuaries, wetlands, rivers and streams identified here is matched with the new Lidar analysis of Delaney in north Herefordshire (Delaney 2021: 88–90, 102). Whichever came first, and whether or not they were used together or else successively (see Ray 2021; Ray *et al.* 2021), Offa's Dyke and Wat's Dyke can thus both be considered as serving the political and economic aspirations of an early

medieval kingdom of Mercia to project and consolidate authority and influence not only over Welsh rivals, but also to curtail and control relations throughout western Britain and Ireland. Mercia's relations with its Anglo-Saxon rivals in Wessex and Northumbria might have been as important in the choice to construct and maintain these linear earthworks as their immediate aspirations to control territory both immediately west and east of the line of each monument (see also Williams 2021).

Offa's Dyke and Wat's Dyke together could have successively or in combination articulated longer-term patterns of landscape utilisation (see Murrieta-Flores and Williams 2017; Malim 2020) and influenced the political and cultural geography of the Anglo-Welsh borderlands long after their active lives had ceased (Swallow 2016; Worthington Hill 2019). Together, they foreshadowed the complex defence-in-depth strategies of the West Saxon expansion and burh-building within the West Midlands and North West up to and within the tenth and early eleventh centuries (Griffiths 2010). By directing mobility, perhaps including multiple axes of movement and places of assembly and muster, tax and trade, Offa's Dyke projected Mercia's military, economic, political and ideological control, influence and prestige as a key component of a hydraulic frontier zone.

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Evaluating the Early Medieval Portable Antiquities Scheme Data for the Welsh Marches

Pauline Clarke

This article explores the early medieval data from the Portable Antiquities Scheme (PAS) from across two countries and several counties to ascertain what this can reveal about boundary formation, including the construction and use of Offa's and Wat's Dykes, during the seventh to ninth centuries AD. Surveying the borderlands which become Welsh Marcher lordships in the Later Middle Ages, the study disproves the popular assumption that the region is devoid of early medieval material culture. Instead, by examining what material culture is known through the PAS it may be possible to demonstrate activity here from the beginning of the ingress into Britain of Anglo-Saxon and later Scandinavian culture.

Keywords: Anglo-Saxon, artefact, borders, Marches, material culture, Viking, Wales

Introduction

The area that was to become the Welsh Marches was an early medieval liminal area while large swathes of it was subject to differing influences and rulerships (Guy 2022: 86). Much more is known still about the multi-faceted politics of the post-Norman period onwards, albeit focused upon dynastic narratives, but for the fifth to eleventh centuries the region is often considered one in turmoil and conflict (Brady 2017: 3; Stephenson 2019: 1). Fox (1955) was to cite the two vast monuments in the borders landscape, Offa's Dyke and Wat's Dyke, as the outcome of this ongoing tension in his first major study of these constructions. In spite of their scale, they remain poorly researched, as do the broader frontier landscapes through which these monument passed (Williams and Delaney 2019: 1, 4). The scale of linear earthwork construction creates specific issues for interpretation; the Welsh Marches come under the archaeological auspices of not just differing counties, but differing countries which serve as barriers to the integration of data in their own right (Belford 2020: 1).

This article attempts to add to the information already known about the Welsh Marches, and the possible role of the Dykes, during the early medieval period by surveying the data available for the area as collected by the Portable Antiquities Scheme. This provides information about largely accidental losses of personal items, and may point to the movement of different peoples, or certainly different cultural ideas, through this landscape. In turn it may be possible to draw conclusions about the role of the Dykes in affecting this flow of people, things and ideas. First, the area will be characterised and then the distribution of artefacts will be examined, and some inferences drawn from these patterns. It is argued that the Dykes did not inhibit significant movement of ideas, and that there is evidence too that life in the borderlands was not an exclusively martial one.

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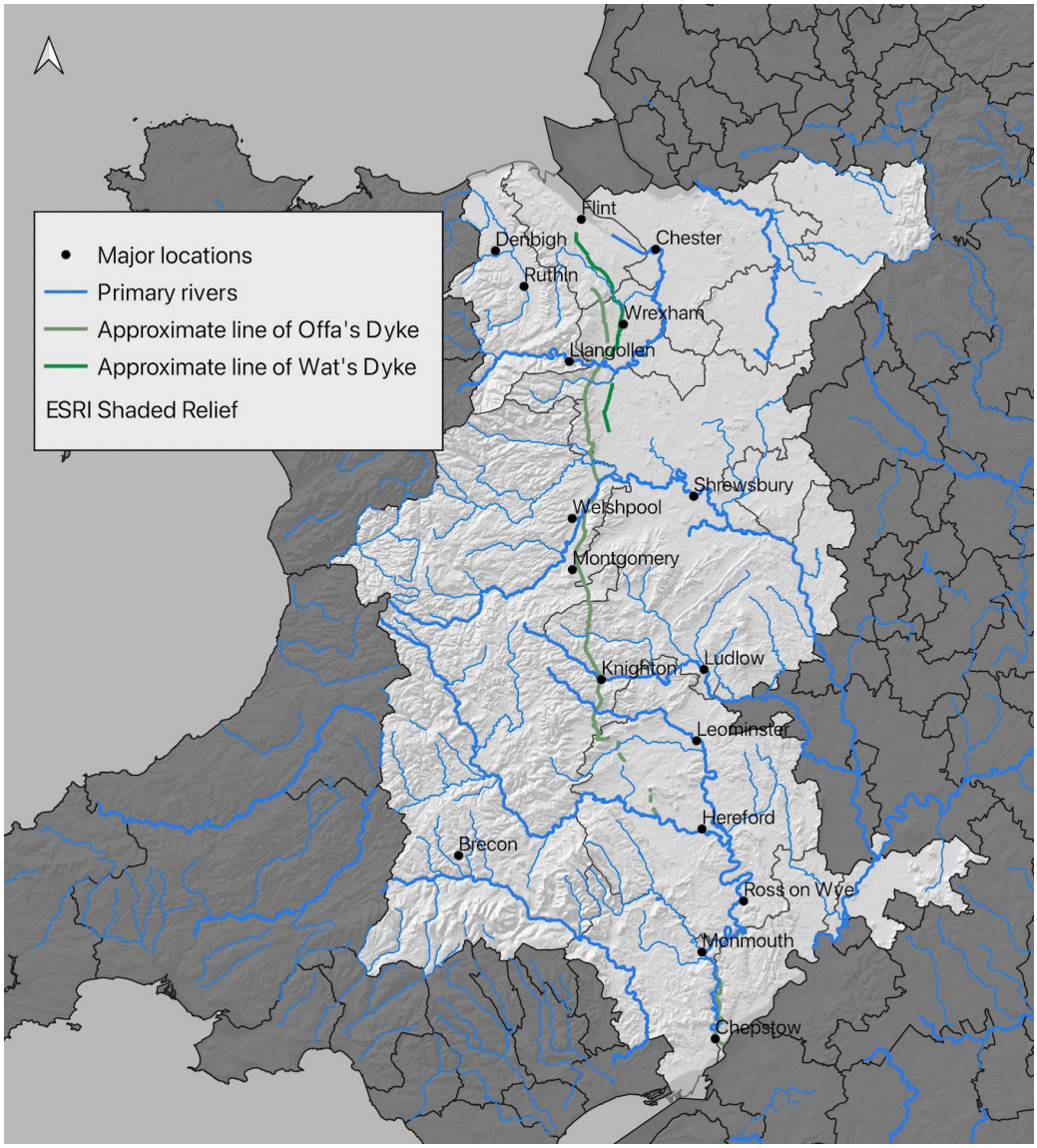

Figure 1: The maximum extent of the Welsh Marches, showing major locations and rivers, and Offa's and Wat's Dykes (©ESRI Satellite (ArcGIS/World_Imagery))

Background: The Welsh Marches

What today compromise the Welsh Marches are usually considered to be the counties immediately adjacent to the modern England and Wales border, that is Cheshire, Flintshire, Shropshire, Powys, Herefordshire, Gloucestershire and Monmouthshire. To this can be added Denbighshire, which was for a long period of history part of the same kingdom as modern Flintshire, and Wrexham Unitary Authority, although a separate government body it sits within Flintshire (Stephenson 2019: 12; Figure 1). The area can

be viewed as representing a transition zone between the low-lying plains of the West Midlands and Staffordshire to the east, and the uplands of the Cambrian Mountains to the west (Stoertz 2004: 9; Belford 2020: 8). Traditionally, it achieved its designation following the Norman conquest when it was declared to be a distinct territory, but landscape differences, and cultural and linguistic intersections between 'Welsh' and 'Anglo-Saxons' were also apparent in the early medieval period even if it was not then defined as a coherent region (Brady 2017: 15; Edwards 2017: 66).

The underlying geology is complex and therefore gives rise to a wide range of soil types across the area, most suited to stock rearing rather than arable farming in the north, with arable increasing to the south (Stanford 1980: 33; Stoertz 2004: 10). Land use today is still predominantly agricultural with some woodland, and while there are major towns, such as Chester, Shrewsbury, Welshpool and Hereford, the majority of the area is characterised by small, dispersed settlements (DEFRA 2021: 10).

The rivers are perhaps key to understanding the region. They are not only a water supply but an important means of communication. This significance is demonstrated by Carver (2019: 21) who suggested that they 'irrigate early medieval society' both with trade and by supporting the interaction of people, for example in facilitating alliances and marriage arrangements. The Dee, Wye and Severn are three of the major rivers in the area; the Dee rises in Snowdonia and flows east to Chester and into the Dee Estuary and thus the wider Irish Sea zone; the Severn rises in central Wales and runs through Welshpool and Shrewsbury before entering the West Midlands and finally draining into the Severn Estuary and the Wye rises near to the source of the Severn, running through Hereford and Monmouth before also discharging into the Severn Estuary (Stoertz 2004: 9). There are also the Rivers Lugg and Arrow across Herefordshire which are important features.

Connecting and intersecting between these river systems were prehistoric routeways and Roman roads. These in turn were crossed and connected by the early medieval linear earthworks constructed in the region (Ray and Bapty 2016: 168; Williams 2021: 165). For example, the major road known in some publications as Watling Street West underlies the later Offa's Dyke west of Leominster, and may have in part defined the Mercian frontier (Ray and Bapty 2016: 240; Ray 2022: 134).

It is a feature of 'the Marches' that there was not a fixed identity but a zone whose emphasis and definition shifted over time and with political and cultural influences. Ultimately the terms 'Marches', or indeed 'England', 'Wales', 'Shropshire' and so on are all later medieval and modern constructs which had no value at all in the early medieval period. They are used here only as convenient locators but we must be wary of their anachronistic draw to conjure divisions that did not exist in the period. The area outlined above, including all of Cheshire and Gloucestershire, represent what is considered to be the maximum extent today (Belford 2020: 8). Traditionally, the division may be that formed by the watershed between the Trent and Severn basins, which follows approximately the Staffordshire/

Shropshire border to the east of the Marches. Many researchers deploy a more restricted geographical area in their study, including Burnham and Davies (2010: 19) regarding the Roman 'frontier' in Wales. They restrict the 'English' area to that west of a line from Chester into west Gloucestershire, through Shrewsbury and Hereford. The finds from this latter truncated area will be used in this evaluation to shift the perspective away from the modern Anglo-Welsh border as an analytical division.

The Portable Antiquities Scheme

The publicly available records for the area found on the Portable Antiquities Scheme (PAS) website[1] will provide the artefact data that will be used in this analysis, and it is appropriate to give some context for information held there. The Portable Antiquities Scheme, administered by the British Museum, was founded in 1997 following revision to the medieval Treasure Trove rules by the ratification of the Treasure Act (1996). It is primarily an opportunity for detectorists (although it is open to anyone) to record finds, mainly of metal objects, made in pursuit of their hobby, which are logged onto a publicly accessible database by a Finds Liaison Officer (FLO) (Robbins 2014: 11–2). Over 1.5 million objects are now recorded and have been used in support of many early medieval period studies, for example by Williams (1997) in categorisation of stirrup strap mounts, or Hadley and Richards (2021: 89–91) in their identification of a Viking winter camp at Torksey, Lincolnshire. In contrast to areas in the east of England (there are, for example, over 6,500 artefacts listed by the PAS for the early medieval period in Lincolnshire alone), artefact evidence is still relatively scarce for the Marches. There are now though enough finds listed from the early medieval period to perhaps support some research; certainly, it is possible to identify preliminary patterns of distribution, temporal and geographical. This is valuable because, in common with much of the country following the end of direct Roman rule, the area is largely aceramic and evidence for the ephemeral structures of the period is also scarce, at least without excavation. The era has little transparency and yet emerging from it are such notable features as Offa's and Wat's Dykes, the Pillar of Eliseg (Edwards 2017: 65) and early religious foundations such as the only known pre-Norman stone-built church at Presteigne, Powys (Cross 2010: 201). Belford (2020: 13) states that the PAS evidence does not feature prominently in research about the borderlands; while harsh it has been largely the case, although steps are being taken to incorporate this data in the next iteration of the Research Framework for Wales (Comeau and Seaman 2022: 4). As artefacts are not found in large numbers there is a need to consider a different scale of finds here, to review those artefacts which are present with a less numerical-based approach than was used in identification of so-called productive sites by 'unusually large quantities' of coinage in the east of the country (Ulmschneider and Pestell 2003: 2). As each year further items are being recorded on the PAS (nearly 70,000 in 2018 alone), more possibilities for analysis in the area arise (Lewis 2019: 4). In a recent study, Redknap (2022) used areas in Wales with as few as

[1] finds.org.uk

two objects recorded to discuss their potential significance, considering the quality and landscape context of the items as opposed to absolute numbers. This approach is a new way of reviewing areas with relatively few finds such as here in the Marches.

Some cross-border work has already been presented on this data (cf. Reavill undated) but it is limited and largely unpublished. This wider approach is necessary for the Marches because of the fluid nature of these borderlands over time as well as in spatial terms (Belford 2020: 15). The structure of the heritage and archaeological bodies who operate in the area leads to an approach that is nearly always focused on a specific county or country, but these are, as seen, not concepts that were recognised in the past in the way they are known in modern times and a different scope is thus required (Belford 2020: 12).[2]

The Marches in the early medieval period

The early medieval period was a time of highly competitive and fluctuating territorial and socio-political organisations operating on differing scales. New cultures and ideas entered lowland Britain following the end of the Roman province of *Britannia* and elements of these changes are discernible in archaeological evidence through, for example, new ways of dealing with the dead, settlement architectures and material culture forms and frequencies (Williams 2006: 24). From the seventh century, emerging larger polities attempted to expand into and control this region, notably but not exclusively the kingdom of Mercia (Stanford 1980: 167–168). Throughout these shifting historical processes, settlement evidence for the period is rarer in the Marches due predominantly to the use of wood for building which generally leaves no trace above ground and is seen in archaeology only when excavated (Higham and Ryan 2013: 92). Furthermore, unlike in eastern and southern England, burial sites are difficult to identify as poor soil conditions mean human bone rarely survives. Indeed, intrusive 'Anglo-Saxon', and later 'Anglo-Scandinavian'/'Viking' influences in the region have long been considered rare and sporadic.

The written sources perpetuate this impression that the early medieval Marches were sparsely populated and very much peripheral to the story of early medieval Britain. For example, the *Anglo-Saxon Chronicles* chart changing fortunes only for elite families and of the areas they ruled and primarily document conflicts and chaos, not daily life (Brady 2017: 2, 6–7). Taking into account also that these sources, such as Bede's *Historia Ecclesiastica Gentis Anglorum* are not contemporary, their value for sketching the story

[2] A note on the terminology to be used here. 'Anglo-Saxon', 'Germanic' and 'Viking' all have well-publicised limitations and problems with their use, but at the moment there are no acceptable substitutes for terms used to describe the people who moved into Britain from the northern continental area following regrouping after the shift in Roman power which culminated in the early fifth century AD, or the (originally) martial people originating from Scandinavia in the late eighth century AD. These terms will be employed here in the spirit of movement of ideas and art forms, not as a label of ethnicity, which is a much more complex area than could be explored in a discussion about artefacts only.

of the Welsh Marches is limited (Higham and Ryan 2013: 72). There are though still striking documented events in the Welsh Marches from these sources, such as the battle between King Æthelfrith of Northumbria and the Britons at Chester, which occurred in the period between AD 614–616, as recorded in the *Anglo-Saxon Chronicle* E manuscript (although other sources offer differing dates). The inscription on the ninth-century AD Pillar of Eliseg in the Vale of Llangollen celebrates the victory of an eponymous Powysian ruler over Anglian armies; but while this monument might mark an important assembly place, we know scarcely anything else regarding this Welsh dynasty, their settlements and society (Gelling 1992: 76; Edwards 2009: 170; Murrieta-Flores and Williams 2017: 70, 75). It is seductive to consider the relationship between the Welsh and the English as being played out mainly on the battlefield given such sources, but only through excavations at Heronbridge, south of Chester, possibly associated with the aforementioned Battle of Chester, do we find direct evidence of conflict in the archaeological record (Mason 2003: 56; Molyneaux 2012: 268). The lack of material culture found from cemeteries and developer-led excavation in the region causes a dearth in evidence for less martial activity (Seaman 2010: 11: Edwards 2017: 65).

The Dykes

In contrast to, and in part inspired by, the paucity of other strands of evidence, the linear earthworks of the Welsh Marches loom large in archaeological discussions of the region. In addition to a series of short dykes, at least some of which are demonstrably early medieval in date (Hankinson and Caseldine 2006), the most prominent and perhaps best-known features in the area may be the two great dykes which run from north to south close to the modern Welsh/English border. There are no contemporary written sources which mention the building of Offa's and Wat's Dykes, the earliest known reference, and perhaps the one most often quoted, comes from Asser in the *Life of Alfred*, written in the ninth century in which he states that 'Offa... ordered a great wall to be built between Britannia and Mercia, from sea to sea' (Fitzpatrick Matthews 2020: 4). The dykes have been subject to investigation at various times over the last one hundred years. Fox (1955) was the first to carry out a detailed ground survey of Offa's Dyke, beginning in the 1920s. He saw the Dyke as a managed frontier, defining the agreed limit of Mercian territory (Fox 1955: 277). He also examined Wat's Dyke although not in so much detail, concluding that it was 'moderate' in comparison to its near neighbour (Fox 1955: 259). Frank Noble then developed the study of Offa's Dyke further, adding charter evidence and that from the undated document *Ordinance concerning the Dunsæte*, which suggests that the River Wye formed the accepted boundary between the 'English and Welsh', as opposed to the Dyke in its possible southern stretches (Noble 1983: 9, 16). The *Ordinance*, most probably dated to the tenth century AD, may be the formalisation of an agreement between the Welsh and the 'English' about conduct and law in an unidentified territory, possibly located between modern Gwent and south-west Herefordshire, but this is not certain (Guy 2022: 97). Noble's views contrasted with those of Fox in that while he considered the Dyke to be

a Mercian construction, built with their territorial definition in mind, he did not consider that it was an agreed frontier as Fox had believed. Instead, Noble considered Offa's Dyke to reflect an asymmetrical relationship between the Mercians and the Britons (Ray and Bapty 2016: 78). Hill and Worthington were the next to take up the challenge in some significant measure, undertaking excavation at twenty-three sites along both monuments as well as less invasive fieldwork (reviewed by Ray and Bapty 2016: 83). They concluded that it was built as a 'significant defence', specifically for Mercia in opposition to the kingdom of Powys (Hill and Worthington 2003: 108, 111, 112).

Over the last two decades, a host of new work has focused on these linear earthworks. Clwyd-Powys Archaeological Trust (CPAT) have largely led their contemporary excavation and investigation of the two earthworks, attempting to attribute a date for building of the monuments through radiocarbon dating and Optically Stimulated Luminesencce (OSL). Along with who built the dykes and why, when they were constructed is the other most pressing question about these enigmatic features. Wat's Dyke pre-dates a motte in Erdigg Park which was constructed in the twelfth century AD (Fitzpatrick-Matthews 2020: 6). Worthington and Hill excavated across Offa's Dyke at Brompton Hall, Shropshire, where an underlying Roman marching camp there gave a *terminus post quem* of AD 410, the traditional date for the withdrawal of Roman armies from Britain, although when the camp was actually abandoned in unknown (Hill and Worthington 2003: 83, 85; Belford 2017: 69; Fitzpatrick 2020: 5). Aerial survey of a section of Offa's Dyke near Chirbury demonstrated that a section of ridge and furrow which dates to the eleventh or twelfth century AD respects the line of the Dyke, allowing at least a *terminus ante quem* (Belford 2017: 69). Following illegal damage to a section of Offa's Dyke at Chirk in 2004, Ian Grant, acting then for CPAT, took samples of deposits for radiocarbon dating; these gave one date range of AD 430–652 for commencement of its construction and another range of AD 887–1019; in contrast an earlier interpretation from a different section carried out by Hayes and Malim yielded a date in the early ninth century (Ray and Bapty 2016: 20; Fitzpatrick-Matthews 2020: 57). OSL data for Wat's Dyke suggest that it was probably built in the early ninth century AD, still during the period of Mercian rule in the area (Malim 2020: 157; but see Fitzpatrick-Matthews 2020). There are though known issues with all of these dates and the dates now generally accepted for their construction by most commentators are broadly late eighth century AD for Offa's Dyke and slightly later early ninth century AD for Wat's Dyke (Murrieta-Flores and Williams 2017: 76; Malim 2020: 147).

Another question is that of east-west crossing places in the Dykes. If they existed, they would provide evidence for the locations of trade as well as the routes which the Mercian forces monitored (Ray and Bapty 2016: 232). Fox (1955: 112–113) argued that there was a gap at Hope Farm near Hope, a further one where Offa's Dyke crosses the Kerry Ridgeway to the west of Bishops Castle with a final one at Hergen, where the Dyke takes an unusual form. Hill and Worthington later concluded that the gaps that Fox had identified in Wat's Dyke did not in fact exist and any through-ways

were 'extremely scarce'. Ray and Bapty (2016: 248) proposed another crossing place at Discoed, Radnorshire, and Belford (2017: 77–78) proposed a further two possibilities at Selly and Treflach. None of these have been verified to date.

Bringing the research into the Dykes completely up to date, Ray and Bapty (2016: 3) published the most extensive modern appraisal of Offa's Dyke, in part to answer some of these disputed claims which arose mainly from the work of Hill and Worthington; that it was built by Offa to counter Welsh attacks on Mercia, and existed only in a form 130km long. They demonstrated that the Dyke can actually be traced for 185km along the Marchlands, although some sections are not readily visible in the landscape (Ray and Bapty 2016: 13). Some of these 'missing' areas have been revealed in recent and very detailed work by Liam Delaney (2021: 101–102), who used LIDAR to demonstrate that Offa's Dyke, as it runs through Herefordshire, is not a series of disjointed features as had been claimed by some, but is a coherent monument. The apparent reduction in scale of Offa's Dyke in South Herefordshire may have been indicative of a different type of frontier, where rivers were in fact acting as the Dyke, in conjunction with a fort of some form; if this is the case it would signal a different relationship between Mercia and the British kingdom of Ergyng, than that with Powys in the north (Delaney 2021: 99, 102). In addition, Delaney (2021: 102) states that the gaps at rivers could indicate the critical nature of these waterways to the operation of the Dyke. Ray *et al.* (2021: 76, 78) support this work through their study, and consider that the operation of the Dyke's, particularly Offa's, may have been zoned, changing in function and appearance moving from north to south along their routes. The possible role of water in the construction and subsequent use of Wat's Dyke is explored further from a unique perspective by Williams (2021: 177) who demonstrated that the Dyke linked the important waterways of the Dee and Severn and therefore offered control of north-south flow of trade along its line, as well as east-west moment across the landscape.

Material culture in the Marches

One possible seam of evidence which may allow the development of a picture of early medieval activity in the area is that from artefact data, which so far has not been explored in depth, and this chapter provides only an introduction to the wider study that is required. Specifically in relation to the Dykes, the evidence is sparse. Fox recovered Roman period objects from excavation of Offa's Dyke at Ffrith, Flintshire, while Varley, excavating Wat's Dyke at Myndd Isa, recovered a loom weight placed on what he interpreted as a hearth, which he attributed to the 'middle Saxon' period (Fitzpatrick-Matthews 2020: 56). This lack of artefactual data was further confirmed by Hill and Worthington (2003: 75) who note Mortimer Wheeler's quote from the 1923 edition of Bulletin of the Board of Celtic Studies in which he stated that 'a flint chip, ... and a fragment of ... pottery' were the only finds from one excavation he supervised.

The background to the building of the Dykes, if the date of construction is to be accepted as late eighth and early ninth centuries AD, is the state of the kingdom of Mercia at that

time. As discussed above, opinion about the purpose of the dykes has varied, and until recently it was viewed mainly through the lens of conflict and suppression of the British by the Anglo-Saxon rulers. Hill (2020: 4) for example stated that the Dykes should 'tell us about the nature of English settlement and its organisation … into a defensive net against Welsh raids'. This is no longer seen as to be the definitive purpose of the Dykes and a more nuanced approach to the role of the monuments is now taken. Can the study of material culture in the area add to this discussion?

Blair (2018: 20) specifically excluded the Marches (and indeed much of the west of Britain) in his work on sixth- to eighth-century architecture because of what he considered lack of evidence for occupation by Germanic peoples here. He is not the only medievalist to consider this to be the case. Carver (2019: 77) in his recent reassessment of the early medieval period states that Wales has no evidence at all for this era. Their opinions, and those of other researchers, arise in part because of the lack of identified burial grounds in the west versus those in the east of England, with their often-rich material evidence which have proved to be such a major source of information. This is in turn partly a result of differential bone preservation, discussed already, but also increased construction activity in the east which in turn leads to more developer-led excavation. However, even the few excavations which have occurred in the west have yielded little, adding to the lack of consideration of the general material culture of the area.

Methodology

The data for early medieval artefacts were downloaded from the PAS database for each of the counties along the border, as defined above. This was then further refined to include only that which can be considered to have been found in the Marches, that is along a line on the English side approximately running from Chester to Monmouth, and all of those found in the Welsh border counties. Finally, the artefacts have been allocated a category in relation to the building of the dykes, pre- or post-AD 796, that is before or after the death of Offa (Ray and Bapty 2016: 114). This is an arbitrary figure; however, it is rare that an object can be confidently assigned a very specific date, most are accorded a date range and so using this date is not unreasonable.

Some dates given as part of the PAS entries have been subject to revision, for example, Haldenby's (2012) work on collared pins means that dates attributed to these items on the database prior to publication have been revised to the ninth century AD onwards, reflecting his assigned period. The same is true of strap ends, as Thomas (2004: 1) considers that they were not introduced in great numbers until the late eighth century AD; these works supersede some early PAS records. Spindle whorls are difficult to date accurately within the early medieval period and appear here as 'not dated' (n/d). Having made these provisos it is important to state that, in general, the PAS record is being used without further interpretation, only when new research supersedes the entry is a revision required, the database entry is otherwise taken here as the authority.

This applies also to the category of object assigned by the FLO; while there is a degree of uncertainty in some identifications (which are allocated the categories of certain, probable or possible), the identification given is accepted here; a review of the data reveals little reason to deviate from these, apart from one record which has been deleted, that is CPAT–42D547 which is probably a modern ring. Following this sorting there are a total of 205 artefacts, of which 41 (20%) items are thought to date from before AD 796 while 146 (71%) post-date this and 18 (9%) have not been allocated a date (Appendix).

In all of this discussion the issue of differential detecting and recording should be borne in mind. Detectorists tend to prefer ploughlands to the pasture found here, which may be reflected in limited activity and therefore low finds numbers. The accepted limit for viable agriculture is set at 300m OD, this theoretically places much of the west of the Marchlands out of the purview of detectorists (Robbins 2014: 30, 87). The patterns here may also be influenced by under recording, a feature of the scheme, although the scale is not understood (Robbins 2014: 34–35). The Marches are not immune to criminal activity as the recent trial of the detectorists who did not report the finding near Leominster of an early medieval hoard of national importance, demonstrates (Hoverd *et al.* 2020).

The locations quoted in the text for the finds follow the PAS guidelines in using the 'known as' designations listed on the PAS database. More specific locations are not used in order to protect sites.

It is important to remember in the following discussion that although the artefacts are being used as a proxy for activity in the landscape by people of different cultures, these patterns are never conclusive, and more evidence needs to be found in support. Indeed, these data are being tested against existing knowledge of the area in the early medieval period and are not, in their current form, going to answer many of the questions that are still open. The main objective here is to explore what evidence exists in light of the new scales of evidence proposed by Redknap (2022) for the area; he contended that while the Marches and Wales especially may not have the volume of objects see in the east of England, those that are recorded are significant in themselves. This lower numerical threshold could then inform new conclusions of possible developments in the early medieval landscape.

The artefacts

What is most obviously apparent from mapping the location of these finds (Figure 2) is that the vast majority are located on the lower lying areas along the Cheshire Plain, and of Shropshire and Herefordshire. This is not surprising: detecting is carried out predominantly on the type of low-lying ploughed and pastureland found here (Robbins 2014: 38, 41). Higher ground does not completely exclude detecting, but recorded finds are sparse at these levels. These factors do however mean that fewer artefacts are recorded as being found in modern Wales but the resultant illusion that there are no finds west of the border should be guarded

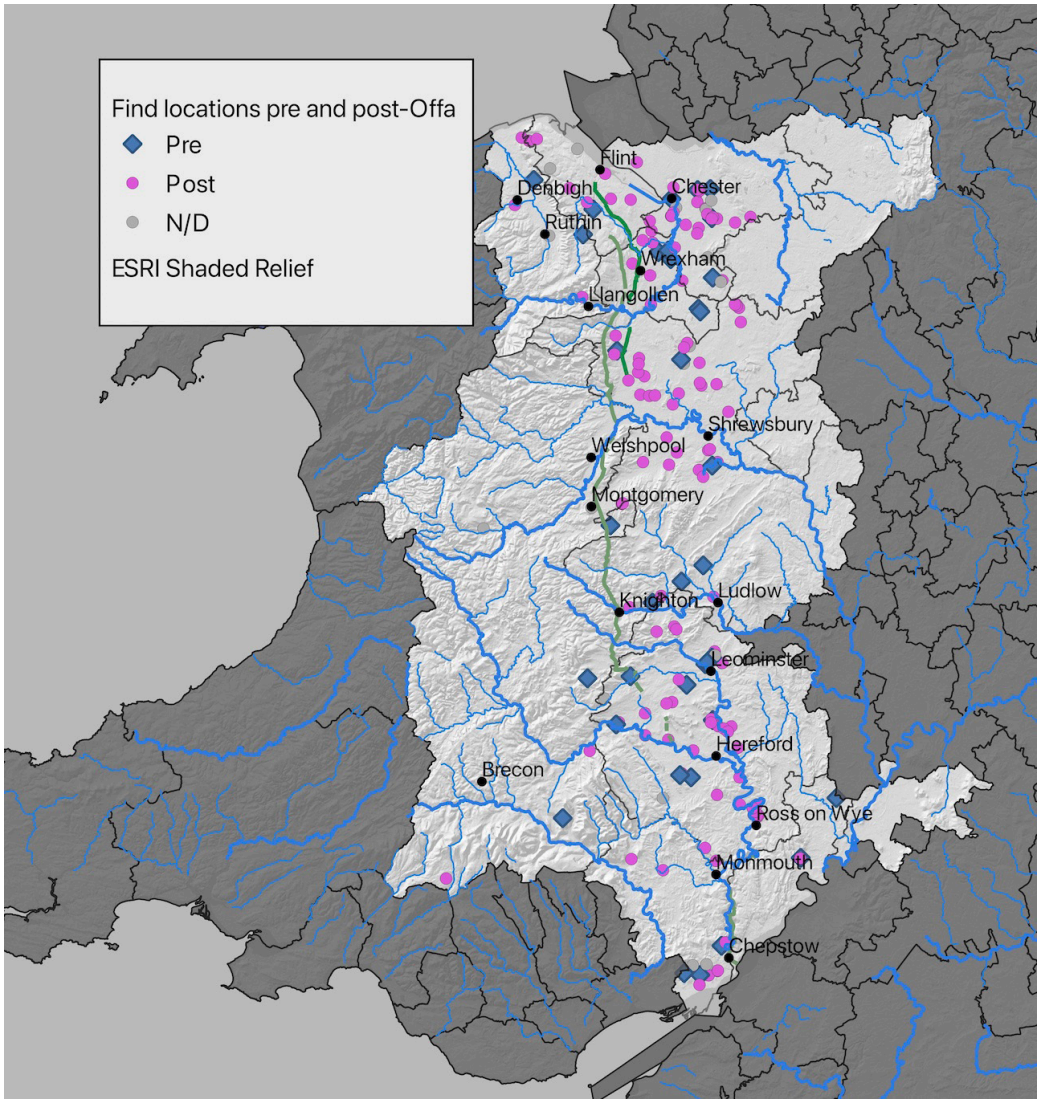

Figure 2: Distribution of PAS finds in the Welsh Marches, pre- and post-Offan dates (Note: Some of the findspots have multiple artefacts) (©Digimap Edina, National Museums)

against; that there are any there at all is considered exceptional in many studies and they should be seen in their own merit despite their low numbers (Redknap 2022: 77).

In the north of the area, in Cheshire and north Shropshire the finds are spread across the area on both sides of the Dykes, with some concentration around Chester and the River Severn. In the south, the artefacts follow faithfully the line of the Rivers Wye and Lugg. In the centre of the area around south Shropshire and North Herefordshire the artefacts are less densely distributed, there is in fact an area 'missing' virtually any artefacts, only partially explained by areas of higher ground which rarely exceed 300m here, such as Wenlock Edge.

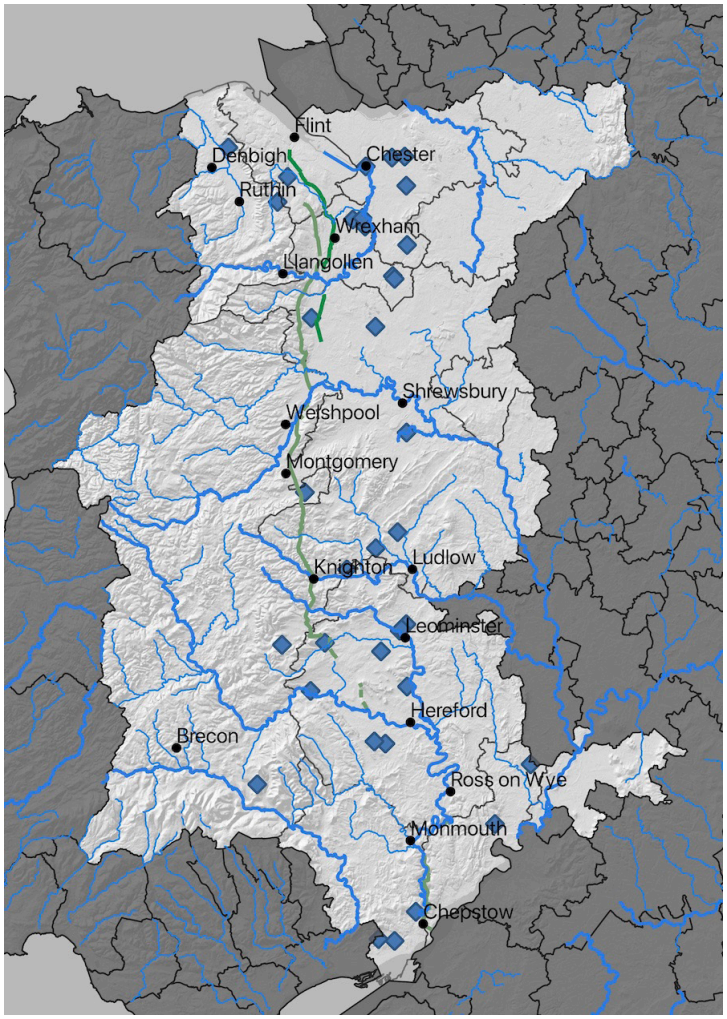

Figure 3: Artefacts pre-Offa

If the finds are considered against the temporal division discussed above, the bias in dated artefacts is towards the later period (Figures 3 and 4, Table 1). However, before the reign of Offa there were still a considerable number of artefacts lost (the majority of PAS finds are considered to be accidental losses) in the area, around Denbigh and Ruthin, Knighton and Hereford.

Some of the artefacts are exceptionally early, such as a buckle (LVPL–BFBC1E) found in Huxley which may date from the late fifth century AD. It should be noted though that this is missing the garnet inlays which probably decorated it and is perhaps more likely to have been 'reworked' by the Scandinavians who are known to have operated in this area later, as demonstrated by the presence of the Huxley hoard of Viking hacksilver (Griffiths 2010: 108). Another early find is a complete mount found in Condover, Shropshire (FAKL–DFAC23), dated, on stylistic grounds, to between AD 470–570.

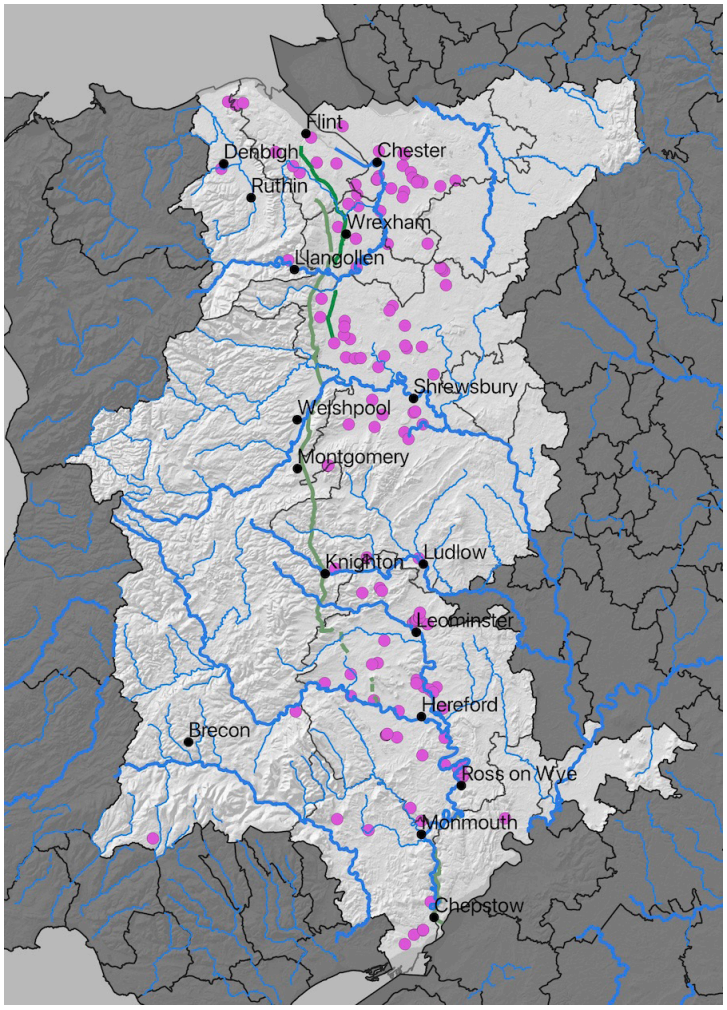

Figure 4: Artefacts post-Offa

The later artefacts are more numerous but show the same pattern of distribution as the earlier finds. Again, there are few found on high ground, and in the south of the Marches they follow the course of the rivers. It remains the case that many artefacts from the early medieval period are found in the Marches, especially when considered against Redknap's (2022) new criteria for significance in the area.

The undated finds are largely too fragmented to allocate a correct identification or so ubiquitous that they could have been manufactured in the Roman or medieval periods; the difficulty with spindle whorls has been already mentioned. The undated coin is a gold stater, possibly originating in India or Afghanistan, this is the only commentary available and therefore no date can be allocated, although it is likely to have been brought into the area by Scandinavian traders. The pin fits no specific type and seems to have given rise to some healthy debate without any conclusion, and it has therefore been attributed a wide date range on the database.

Table 1: Summary of artefact types found in the Marches.
Notes * 2 Hooked tags are recorded as Dress Fastener, revised here to match later PAS guidelines
** Possibly medieval

Period	Object Types as per PAS Description	Total
Pre-AD 796	Bead (1), Brooch (13), Buckle, (2), Coin (8), Finger ring (1), Harness mount (1), Mount (4), Pin (3), Scabbard (1), Sleeve clasp (3), Strap fitting (1), Sword (1), Vessel (2)	41
Post-AD 796	Axehead (1), Bell (2), Book fitting (1), Bridle bit (3), Brooch (6), Buckle (4), Coin (12), Dagger (1), Finger ring (1), Harness fitting (15), Hoard (1), Hooked tag* (5), Ingot (3), Key, locking (2), Mount (4), Pendant (1), Pin (12), Scabbard (1), Spur(1), Staff (1), Stirrup (19), Strap end (40), Sword (4), Unidentified (2), Vessel (1), Weight (3)	146
Undated	Bell** (2), Coin (1), Dagger (1), Knife (1), Mount book (1), Needle (1), Pendant (1), Pin (1), Spindle whorl (4), Stylus** (1), Tile (1), Unidentified object (2), Whetstone (1)	18

It is the case though that the pre-Offan period is less well represented in this material than post AD 796, but there is still enough evidence of activity here. It is not the intention to review the artefacts in any detail here, but there are some specific finds which it is worth commenting upon, starting with the pre-Offan period.

Diagnostic finds

Pre-Offan artefacts

These are some limited artefact types which are very specific to a group of people and were used only for a short period of time. Sleeve clasps are one example, and three of these have been recovered in the area, PAS numbers HESH-85E083, HESH-926A22 and HESH-09A4C1, the first two from a site known as North Herefordshire and the third from Whitney-on-Wye, Herefordshire, 2.5km east of the country border. Sleeve clasps originated in Scandinavia in the late fifth century AD, more specifically they have been found in Norway, eastern Sweden and Denmark and those who migrated from these areas who seem to have brought this fashion with them in c. AD 475 (Owen-Crocker 2004: 56). They are known in England predominantly from female burials, whereas in Norway they have also been found in male graves (Walton Rogers 2007: 123). They have been found in many eastern counties of England where they were often worn with cruciform brooches in what Owen-Crocker (2004: 56) terms 'Anglian' style but were not, at the time of these studies, known in the west of England. Finding these in this area is one of the first indications that Anglo-Saxon culture arrived in the Marches earlier than may have previously been considered.

Another early find is described as an 'Anglo-Saxon/Frankish' glass bead (PUBLIC–11D081) found near Old Radnor in Powys, dated to the second half of the sixth century AD and another strongly female gendered item (Owen-Crocker 2004: 85). A similar bead was found in a grave at Mucking, Essex, but coloured examples, as is the one here, are generally less common. Old Radnor was the site of a Norman borough, but it may have originated even earlier in what Ray and Bapty (2016: 282) term the 'late British' period. Unlike the sleeve clasps which had definite cultural affiliation, the bead might conceivably have been traded rather than being an indicator of movement of Germanic peoples.

Other early dress accessories are brooches, for example a disc brooch found near to Wrexham (LVPL–6BF678), dated to a range AD 450–550. A cast saucer brooch (HESH–BD1AD8) was found in Cockshutt, Shropshire, the dating for this is given as AD 450–720. There are also fragments of two cruciform brooches from the site in North Herefordshire (HESH–B8F058 and HESH–B90507), and one also from Great Barrow, Chester (LVPL–E1F877). These are very specifically early Anglo-Saxon cultural forms which Martin (2015: 128) dates to the narrower range AD 475–525.

Table 2: Finds from North Herefordshire

PAS ID	Object type	Date from (AD)	Date to (AD)
HESH-B8F058	Brooch cruciform	430	550
HESH-B90507	Brooch	480	600
HESH-85E083	Sleeve clasp	500	600
HESH-926A22	Sleeve clasp	550	800
HESH-F3BC94	Sword	600	850
HESH-927418	Vessel: pottery sherd	500	700
HESH-5AD183	Coin: Northumbrian styca	800	900
HESH-5AFD80	Coin: Northumbrian styca	830	855
HESH-5B1DB2	Coin: silver sceatta	695	715
HESH-859D01	Pin	650	900
HESH-85ADC8	Pin	650	900
HESH-85C3B3	Pin	650	900
HESH-85CC82	Pin	650	900
HESH-85D871	Strap end: Class A Type 2	800	1000
HESH-9296F6	Strap end: Class C	850	1000
HESH-85D275	Strap end: Class A Type 1	800	1000
HESH-1F7483	Buckle	1000	1200
HESH-1F9457	Finger ring	700	1200
HESH-1F8A76	Mount	700	1200
HESH-928C27	Harness fitting	1000	1100
HESH-B8FE61	Unidentified	400	900

It can be argued that the brooches could have been in use for many generations when they were lost or deposited in some way and are therefore not an indicator of early settlement. However, this same cannot be said for sleeve clasps, which are so fragile that they are often not even found in matched pairs or even present on both sleeves because of their tendency to fracture (Owen-Crocker 2004: 58). These are then a probable indication of use of early Anglo-Saxon female dress accessories, which could in turn be interpreted as evidence that women were present in the Marches. This may then potentially represent evidence for settlement. If so, this would subvert to an extent the traditional picture of a purely martial, predominantly male, society in favour of a more domestic one operating in the area much earlier than many would consider.

The site known as North Herefordshire on the PAS database is probably an early Anglo-Saxon cemetery containing a small number of furnished burials. The site is not excavated or published but Capper (2020: 204–205) suggests that the artefacts found are typical of such sites. In this small area, covering two small uncultivated fields, have been found the sleeve clasps and cruciform brooch fragments discussed above, but there is also a sherd of pottery of a type typical of cremation urns of the period – the full list of detected finds is shown in Table 2. Furnished burial ceased c. AD 680 (Capper 2020: 206). However, if this site is indeed a burial ground it would represent one of the most westerly pre-Christian cemeteries known. This again perhaps signals a domestic, settled element to the area as opposed to a purely martial one and, while incongruous for the region, should not be dismissed as a rare westerly instance of groups who practiced mortuary procedures considered more typical of southern and eastern England.

Table 3: Viking era artefacts in the North Wales triangle

PAS ID	Object Type	Location	PAS date range (AD)	Culture
LVPL-FC2097	Needle/Ring-headed pin?	Ruthin	500–1000	Irish
LVPL-918135	Mount book?	Mold	600¬–900	Unclassified
WREX-6BB64D	Bell, Norse	Llanasa	700–1100	Scandinavian
NMGW-3E31B4	Brooch, gold	Llanrmon	700–800	British?
WREX-ABEEDC	Pin	Dyserth	700–900	
LVPL-30A793	Brooch	Nannerch	750–1000	
WREX-C2544A	Brooch, penannular	Bodfari	750–850	Irish
CPAT-28F196	Strap end, Class F	Denbigh	800–999	Scandinavian
LVPL-CDD0D0	Book fitting	Llangollen	1000–1200	
LVPL-7D2F34	Coin	Mold	1056–1059	Unclassified
LVPL-3E7790	Tile, roof	Holywell	400–1066	Unclassified
LVPL-5EAC05	Strap end, Class A1, silver	Mold	400–1066	Anglo-Saxon
HESH-66049B	Pendant, lead	Caersws	50–1100	Scandinavian?
NMGW-799430	Ingot	Trelawnyd	N/D	Scandinavian

Post-Offan artefacts

Turning to later period finds, these do start to look more martial, or at least more associated with Viking or Scandinavian culture. Of the 147 items listed, there is a significant amount of horse harness fittings, 41 (28%), and nine (6%) items of weaponry. Most of these items are dated to post AD 850, the 19 (13%) metal stirrups and their associated mounts were introduced by Vikings and are not seen earlier in Britain, while the 16 (11%) harness fittings too are all of Scandinavian form. The knife has been included here as a weapon, perhaps without justification, but the daggers listed are more accurately described as quillion guards; as these could also be used on a knife as well as a dagger the distinction between them is unclear.

The increase in number of finds in the later period seems then to be a function of incoming Scandinavian raiders, settlers and traders. It is considered that the Dee estuary was an important node in the Irish Sea trade with Dublin and the Isle of Man, and Chester and North Wales were both settled (albeit briefly in the case of Chester) by Viking armies from AD 893 (Horovitz 2008: 9; Griffiths 2010: 38; Williams 2021: 172). Artefacts found around Denbigh and the coastline of North Wales support the importance of the area for trade in the pre- and post-Offan periods (Mason 2014: 77; Table 3). Further, while the finds in this northern Welsh triangle do include domestic items, they are predominantly of Viking culture and include some high-status items such as the silver strap end (LVPL–5EAC05) and gold brooch (NMGW–3E31B4). It is likely that these are indicative of the Irish Sea trade that Meols was the focus of (Griffith 2010: 111–113). This is due perhaps to increased population, but also specifically the advent of the Viking era and its attendant diaspora of Scandinavian people. For instance, Viking groups are attested as having camped, if not settled at Chester and near to Bridgnorth. In addition, a substantial Viking force fought the combined might of Mercia, Wessex and the Welsh at Buttington, Powys in AD 894, according to the *Anglo-Saxon Chronicle* (Horovitz 2008: 9; Harding 2016: 97; Ray and Bapty 2016: 56). The Viking period has long been recognised as a time of increased trade across the Irish Sea zone. The presence of Viking-period hoards in the area surrounding Chester also indicates the importance of Scandinavian activity here. The hoard listed by the PAS is the Huxley Hoard of hack silver and ingots, found near to the River Gowy, which would have been navigable in the period, giving access to this wider Irish Sea zone of trade (Garner 2009: 50). Five further early medieval period hoards have found within 10km of Chester city centre (Garner 2009: 50; Mason 2003; Swallow 2016: 315; Williams 2009: 74).

The spread further west of weaponry and horse equipment in the southern part of the Marches is in accordance with the assertion by Delaney (2021: 99), Ray *et al*. (2021) and earlier Hill and Worthington (2003: 111), that the relationship across whatever border existed between Mercia and Ergyng (an ancient kingdom in what is now south Herefordshire) was not the same as that between those on either side of the northern stretch of the Dykes (Stanford 1980: 25, 173). If the River Wye acted as a border or

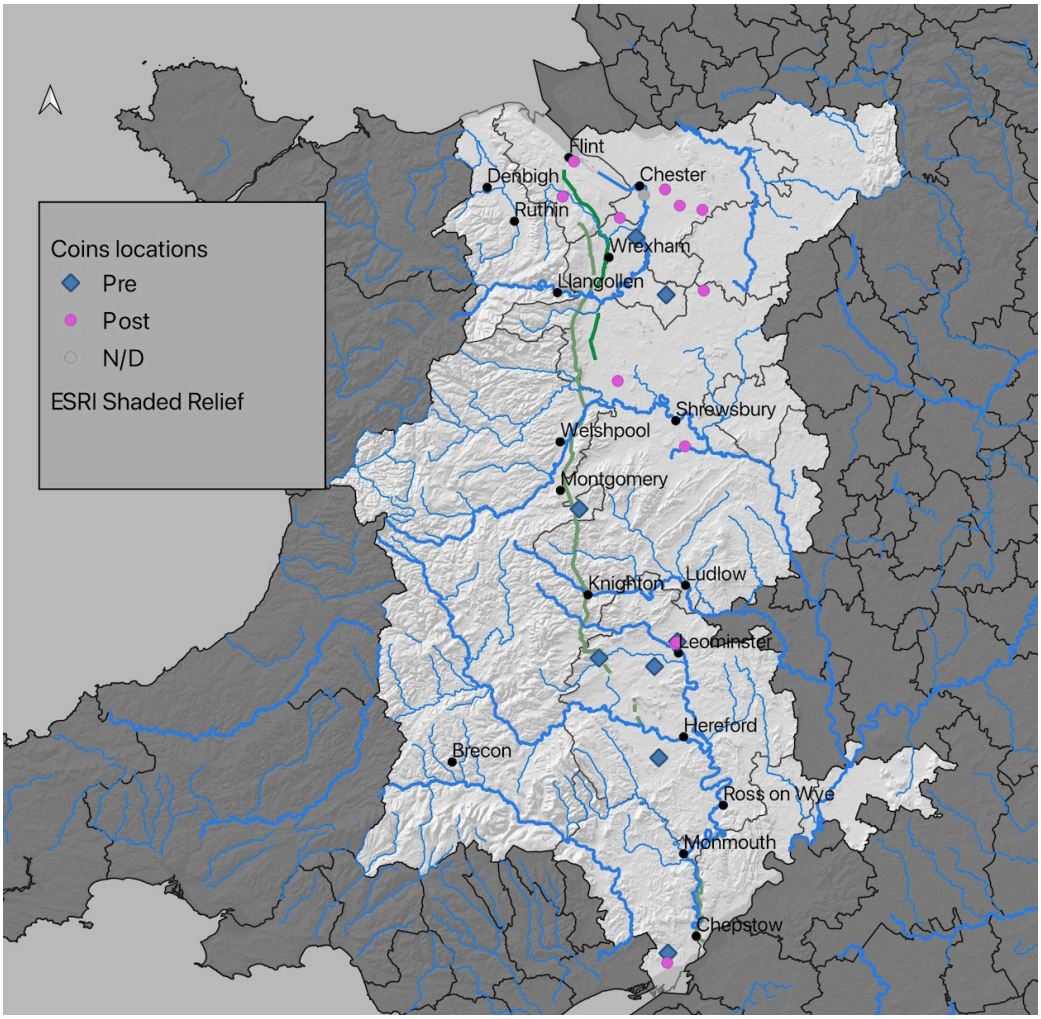

Figure 5: Coin distribution

frontier zone equivalent to how Offa's Dyke operated elsewhere, then this area would seem to be more porous in the spread of culture and people than perhaps the northern, central and most southerly stretches of the border (Ray *et al.* 2021: 78–79). This view is explored too by Ray (2022: 132) in his re-evaluation of the diversity of organisation and management along Offa's Dyke. Redknap (2022: 77) sees horse harness as indication of a mobile society, further supporting this interpretation.

Coins

It is valuable to consider briefly the pattern of coin loss in the area across both the pre- and post-Offan phases (Table 4). They are widely distributed across the study region (Figure 5). The concentration of later coins in the north reflects trade but there are

a number of earlier (pre-Offan) coins which are found in the west of the area, in the foothills of the higher land masses, indicating links with the areas of coin economy from near its resumption post-Rome. That the majority of coins (12 as opposed to 8) are dated to the post-Offan period is not typical: Richards and Naylor (2010: 197) in their analysis of coin distribution from Gloucestershire, Oxfordshire, Worcestershire and Warwickshire found that over 80% of coin loss was pre-Offan in date. The peak in coin dates between AD 680–710 in the study area is however consistent with the wider distribution and it must therefore be inferred that a larger sample would show a more typical pattern. The coin use in the area then seems to be in agreement with national patterns. It is perhaps noteworthy that no coins of Offa have been found in the area, although one from the reign of his successor, Coenwulf, is present, CPAT–4AAF81. It is a small sample and this may only be coincidental, with no conclusions possible. The two sceattas minted in the Netherlands, and the range of monarchs in the later coins all attest to wide ranging trade contacts in the area.

Table 4: Coins in the study area

PAS ID	Date from AD	Date to AD		Type
HESH-F54465	700	715	Pre	Sceat
WREX-9F2C2D	710	750	Pre	Sceat
NMGW-9A4808	690	710	Pre	Sceat, minted Netherlands
HESH-33C368	685	690	Pre	Sceat
HESH-5B1DB2	695	715	Pre	Sceat
LVPL-20C747	700	710	Pre	Sceat
HESH-C9EF2A	700	710	Pre	Pierced sceat
HESH-B37EA8	700	750	Pre	Sceat, minted Netherlands
HESH-696AA7	979	985	Post	Aethelred II, England
LVPL-B32CD5	825	828	Post	Ecgbert, Wessex
HESH-5AD183	800	900	Post	Northumbrian styca, Redwulf 844–858
HESH-5AFD80	830	855	Post	Northumbrian styca
LVPL-1DCD95	1029	1036	Post	Cnut, England
CPAT-049EA1	979	985	Post	Aethelred II, England
LVPL-7D2F34	1056	1059	Post	Edward, England
WREX-C1D6F4	946	955	Post	Eadred, Wessex (and England)
NMGW-EC9AAB	985	991	Post	Aethelred II, England
CPAT-4AAF81	796	805	Post	Coenwulf, Mercia
LVPL-C15BC5	796	798	Post	Eadberth, Kent (under Offa)
HESH-E20370	995	1005	Post	Sihtric III, Dublin
LVPL1327			N/D	Stater

Discussion

The number of artefacts evaluated in this study may fall outside of the critical weight considered to constitute evidence by Blair (2018) and Carver (2019) in their recent appraisals. Hinton (2005: 39) too, amongst others, stated that culture and/or people spread west and north during the sixth century but did not present any evidence from the Marches in this analysis. These approaches may be considered limiting when considered against the corpus of material discussed here. It is true that the numbers are not on the scale of other areas in the south and east of England, but this supports Redknap's (2022: 77) call for a new approach in judging activity in Wales (and this equally applies to the Marches) against a qualitative versus quantitative scale. Further, the artefacts are of the same classes of materials as are found elsewhere in the east of the country, brooches and metal fittings from the PAS being listed specifically by Carver as evidential finds for Southumbria (2019: 77). The presence of a small cemetery, and some more domestic items would perhaps indicate a level of settlement, albeit on a much lower level, early in the period. Redknap (2022: 77) contends that brooches are associated with settlement as well as accidental losses, while hack silver is found within occupation zones. There are nineteen brooches or brooch fragments listed across the area, while the three hack silver ingots are all confined to the north, within the Irish Sea trading region. These would perhaps add to the evidence for some form of settlement in the Marches.

The pattern of concentration of the finds in the north and south of the areas with a lesser density in south Shropshire and North Herefordshire can perhaps be explained as a result of differential detecting activity, as the high ground found here is not favoured by detectorists. Much of the land is also owned by the National Trust, who do not permit metal detecting; however, neither of these factors account for the entire area. It is counter to Gelling's (1992: 59, 69) argument that fewer British/Welsh names survive in Shropshire than do in adjacent, eastern counties such as Staffordshire and Worcestershire, as this would suggest that there should be a significant presence of Anglo-Saxon cultural items. Another place-name study carried out by Gelling was highlighted by Rowley (2001: 72), this time of the occurrence of *tūn* names in this area, an early Saxon name for an enclosure or settlement (Ekwall 1960, 482). There are an exceptional number of place-names in Shropshire which include this element, and their variations: Norton (north town), Aston (east town), Sutton (south town) and Weston (west town) (Figure 6). These may be evidence of an Anglo-Saxon administrative structure where the geographically named towns were grouped around estates, and Mercian rulers may therefore have formed governments based on a series of linked central places, often located on such rivers and roads (Rowley 2001: 72; Blair 2020: 400). This organisation may have been in operation from as early as AD 750–850 (Blair 2018).

It is apparent from the maps that the distribution of these settlements also follows the artefact distribution with the same apparent gap in the central region. Many of the *tūn*

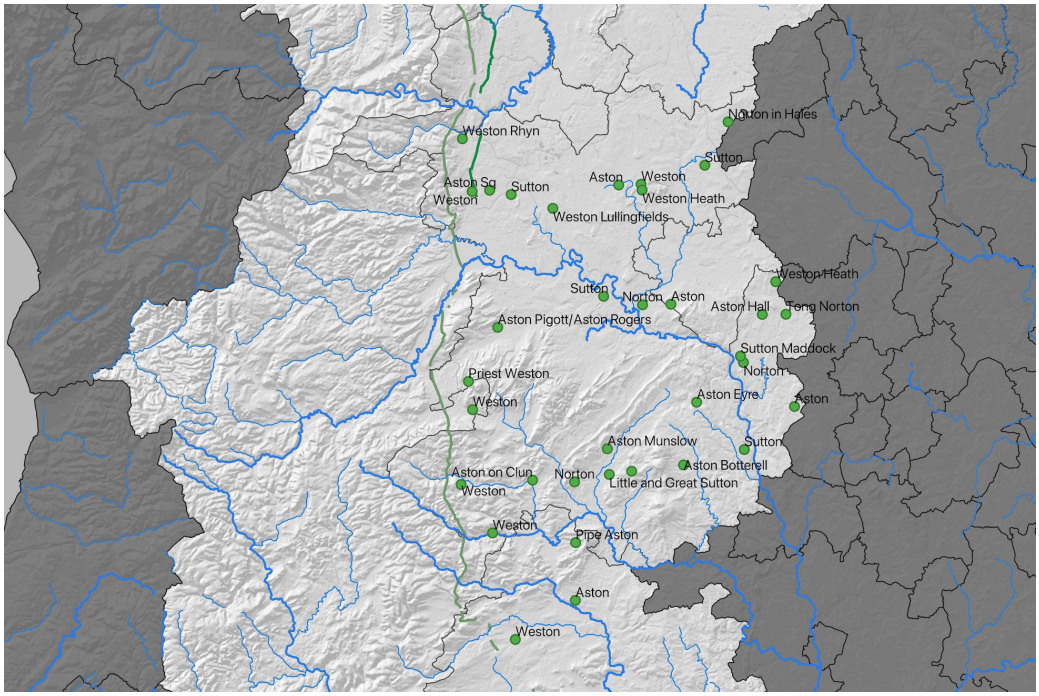

Figure 6: *Tūn* names in Shropshire

names are located on the high ground of the Long Mynd on which are also found a number of Iron Age hillforts, although evidence for the reoccupation of these in the Anglo-Saxon period is not available and it is by no means certain that their occupation and the later administrative structure are linked. The 'Westons' also follow the line of the Dykes, and while this is to some extent geographically inevitable, it gives rise to the possibility that these estates, formed in the later period, were deliberately bounded by the Dykes, with the resultant implication for Welsh autonomy on the western side. This is counter to Blair's (2018: 208) assertion that the Mercians possibly controlled a portion of land to the west of the Dykes.

This place-name evidence though is not reflected in the finds distribution which should in theory be dense in this central area. If it is assumed that detectorists operate uniformly, then there was a special circumstance in operation in this area. It is notable that the area is also the site of many short dykes, although these are not fully understood or dated, making it difficult to draw any conclusions about their operation.

There are also a limited number of artefacts to the west of what was to become the line of Offa's and Wat's Dyke, and what is apparent here is that the proportion of artefacts east and west of the Dykes does not change significantly after their building, with 27% being west of the dykes pre-AD 796 and 22% after this date. There are of course a lot of faults with this figure and the amount of data is not enough to offer statistical significance but

as a crude count it offers a point for consideration. A much more detailed analysis than is possible here would need to be carried out using, for example better, more robust dates than enabled by the PAS, and addition of other data sources, before conclusions could be drawn in any meaningful manner, but, if as for example Belford (2017: 83) states the Dykes were only in use for a few generations then this is visible in the resumption – or continuity – of material flow across the Dykes, but might mitigate too against their possible use in formation of *tūn* administrative areas. Again, the oddly unpopulated (with finds) central area does not show artefactual evidence across the west of the monuments but there is little to the east either. The building of the Dykes may not therefore have had a significant impact on trade or other exchange, for example of gifts or dues. In contrast, David Hill (2020: 6) argued that there was no evidence for trade and commerce along the Dykes but this would not necessarily be the case – it is just not possible to judge whether the appearance of artefacts is a result of trade (that is, uptake of the new introductions by existing people) or movement of these new people, from this sample (Murietta-Flores and Williams 2017: 98). Murietta-Flores and Williams (2017: 98) proposed the area surrounding the Pillar of Eliseg, near Llangollen, Denbighshire as a potential meeting and trading site; although there is no artefactual evidence here to support this, the presence of Scandinavian cultural items at the northern end of the area around Denbigh and Ruthin would suggest the existence of a Viking trade route in the later period.

A further phenomenon apparent is the close relationship between finds and rivers, which, while seen all over the area is especially strong in the south, around the River Wye, as it moves from the foot of the Black Mountains towards Hereford and then to Ross-on-Wye. The River Lugg enters Hereford from the north, the same patterning of artefacts is seen along its course. To an extent this is also seen along the Dee and Severn rivers further north, but not with the same rigidity. The major River Trent in the east links with the Rivers Dane and Weaver that run through the northwest of the maximum area of the Marches and therefore linked Mercia and Northumbria (Carver 2019: 23). While this part of Cheshire is not included in this survey it serves to illustrate the long-distance communication routes enabled by these waterways. Rivers, as seen above, were considered to be of vital importance in society and trade (Carver 2019: 21). Williams (2021) considered the rivers along Wat's Dyke in some detail, discussing how they interact at various points, for example when the Dyke blocks the Alyn, and therefore movement along it, outside Wrexham (Williams 2021: 163). Further, the monument 'links' the Dee and the Severn, thus allowing north–south shipment of goods and people; there may even have been a jetty at Basingwerk projecting into the Dee which would have facilitated unloading of ships arriving from across the Irish Sea (Williams 2021: 172). There is certainly a spread of artefacts along this path, from Basingwerk and Flint, but also from Prestatyn, to the east of the Vale of Clwyd, then following the landscape along both sides of Wat's Dyke. This may reflect Ray's proposed (2023: 148) 'neutral zone' which operated between Offa's and Wat's Dykes, if this did indeed exist then trade would thus have been facilitated here. There is also a slight concentration along the River Dee as it flows south which then develops into a

cluster after the known southern limit of Wat's Dyke and thence towards the Severn. There are then artefacts noted around the Severn as it flows towards Shrewsbury, in the flat and fertile lands either side of the Severn. Before this river eventually drains into the Atlantic, it passes within 5km of the important town of Droitwich which was a major source of salt, a vital commodity for much of history and widely traded (Maddicott 2005: 24–5). This adherence to river routeways in the central and south of the area is especially pronounced. This is not so strong a correlation in the north, as many artefacts are scattered across the plain between the Rivers Dee and Weaver in Cheshire and again across land in North Shropshire, although the Huxley Hoard, as discussed above, was located near to what would have been a navigable river at the time (Garner 2009: 50).

Rivers too formed at least some of the traditional boundaries of states; the Dee, for example, was at one time the boundary of the Welsh kingdom of Gwynedd and it may be that the transition to upland areas also acted as a border of some kind (Belford 2020: 16). If indeed the high land was a limiting factor in settlement or other activity then the lack of artefacts in these areas may be a result of this as opposed to lack of detection, a conundrum that will ultimately only be resolved by excavation. Controlling water courses and their catchments seems to be a factor in the location of Bronze and Iron Age agriculture and settlement and there is no reason to suspect that this was not the case in later times (Belford 2020: 8). The adherence to rivers in the south is so strong and so widespread that it is unlikely to be the result of differential detecting but a phenomenon in itself.

Also significant is Delaney's (2021) analysis of Offa's Dyke in the south along its projected route through Herefordshire. This new research considers that the River Wye may have been used instead of, or to reinforce, the nature of the Dyke here, 'to funnel and control passage and trade' (Delaney 2021: 99; Ray *et al* 2021: 55). There is an outstanding pattern of finds directly besides the Wye all through this southern Herefordshire landscape as far as Ross-on-Wye, as there is also along the River Lugg as it flows from Leominster to meet with the Wye near Hereford. The finds along the Wye cross the conjectured course of the Dykes in this area. Some of these artefacts are the horse equipment discussed earlier, which is not found in significant numbers on the east side of the Dykes further north. It could be speculated that this was because of the presence of the British and lack of forces which utilised decorated harness, but it may alternately indicate a much more fluid relationship between British natives and the incomers. The *tūn* named settlements are also a feature here but not in the dense concentration that they are seen in Shropshire. If the Dyke did indeed operate as some sort of barrier for more than a few generations, and this is not certain, then it appears to be a more permeable barrier along the course of the Wye, and to a lesser extent along the rivers Monnow and Trothy, which flow into the Wye near Monmouth. While the majority of these finds in this more open area post-date the building of the Dykes because of their sheer volume, early artefacts are also present, such as the sleeve clasp from Whitney-on-Wye mentioned earlier.

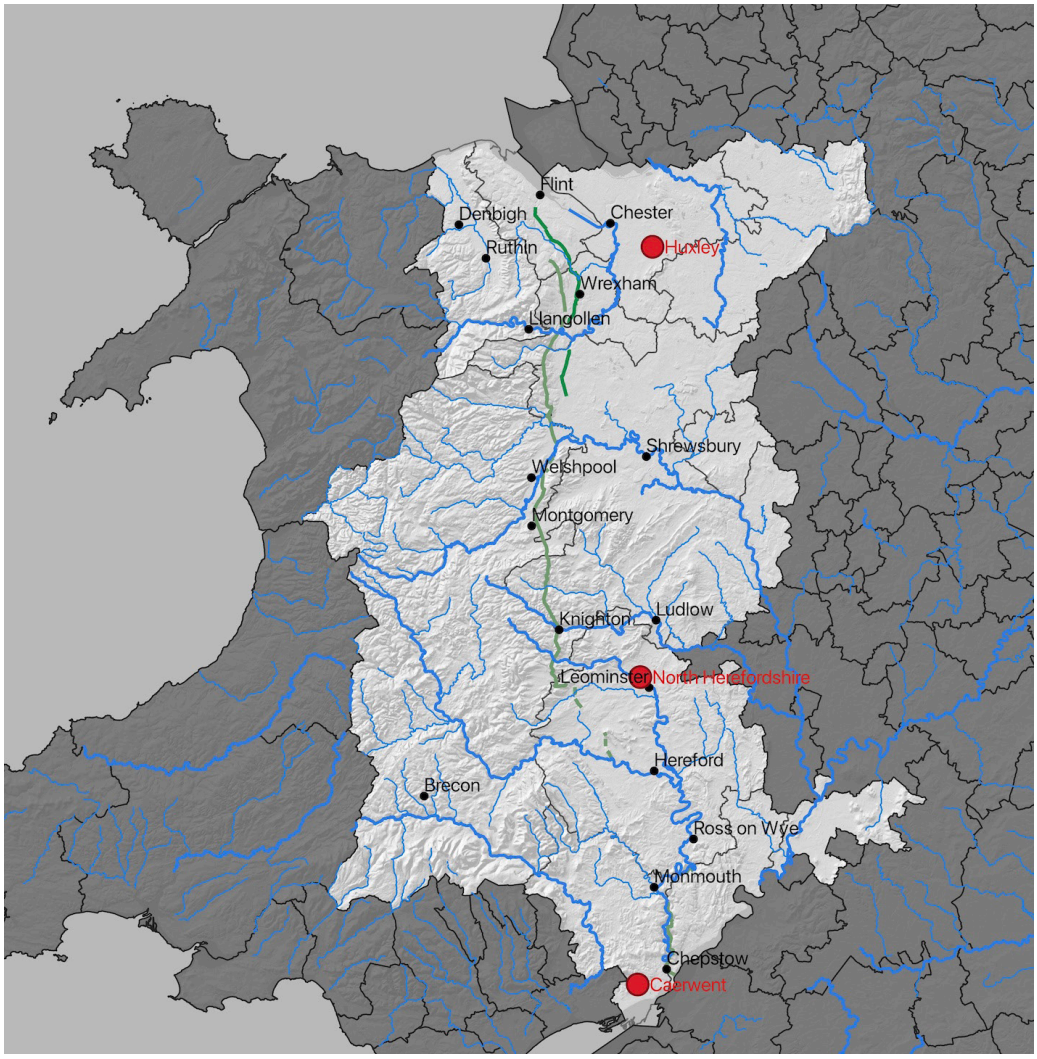

Figure 7: Location of three sites with clusters of artefacts in the Marches

There are three more locations which may be of significance in this Marches hinterland, and all are highlighted by clusters of artefacts (Figure 7). Huxley, located 11km south-east of Chester, not only is the site of the of burial and subsequent rediscovery of a Viking hoard but there are a further nine artefacts in the vicinity that have been located by detectorists. These are located near to the River Gowy, the importance of which to wider trade regions has been discussed (Garner 2009: 50). Most of the artefacts found are Scandinavian in style and it seems that the area may have been a small settlement or manufacturing/market site in the later part of the period, supported by the presence of the reworked buckle discussed above. The site known as North Herefordshire is the location of the Anglo-Saxon cemetery discussed above (Capper 2020: 204–205). Finally, there are several artefacts south of Chepstow, near to Caerwent Roman town which perhaps suggests ongoing settlement

post-Rome. The relative proximity to Cirencester, 'ringed' with Germanic cemeteries and in the area which continued to import ceramics post-Rome would indicate that the finds at Chepstow are not surprising (Reynolds 2013: 140–141).

Given the near-obsession with characterising the early medieval period in terms of warfare, there is little evidence for weaponry. Most likely this is a result of detectorists' preferences as iron objects are often 'dialled out' of the machinery, thus obviating the collection of spears, swords and so on (Richards and Naylor 2013: 193). Although this has to be considered, it may still be surprising that, against the background of ongoing battle and conflict that is often thought to have been the condition of the Marches, there are a number of 'domestic' finds, a broad term used here only as a means of differentiating non-martial artefacts. The cemetery already mentioned in North Herefordshire contains female- and male-associated items. Wrist clasps, discussed above, which are considered to be exclusively female dress item in early Anglo-Saxon England as they known only from female-gendered burial contexts, and along with the two fragments of cruciform brooch found there, would perhaps suggest an early Anglian settlement of a domestic nature which was established by the later sixth century AD. This might seem an interpretative stretch given there are no comparable sites in the region, but this can be weighed against Redknap's (2022: 77) assertion of brooches as a likely signal of settlement in Wales. However, by the late seventh century AD this area seems to have changed in the site's purpose, with the loss of small items often associated with trade or local fairs. The settlement may have shifted during this time to its historic position 2km north of the site; such a transition from cemetery to market is not unknown in the period and is a typical phenomenon in nearby counties (Richards and Naylor 2010: 197). Two of these lost items in this later phase are Northumbrian styca, thought in most cases to be a sign of Viking activity (Hadley and Richards 2021: 125). Although Vikings are known to have raided Gloucestershire in AD 877 there has been no evidence to date of their early presence so far east, although Llangorse Crannog may have fallen victim to their raids (Heighway 2003: 9; Lane and Redknap 2019: 20).

Finally though, there is little evidence to be found from the distribution of artefacts for any routeways through the Dykes. There are no clusters or lines of artefacts that would indicate a passing place or through route. In line with the lack of evidence from other sources it would seem increasingly unlikely that such routes existed, at least along Wat's Dyke and the northern extent of Offa's Dyke. However, again, if the operation of Offa's Dyke in the south was different than the scatter of items of all periods to the east and the west of the Wye, then this adds to the weight of evidence for a permeable and more symmetrical power relationship in the control and organisation of the landscape either side of this.

Conclusion

This chapter has used the data collected by the PAS to characterise the landscape surrounding the Mercian dykes which dominate the modern England/Wales border. There is of course significant bias in this record, and differential detecting has to be

considered. It is an area that does not always facilitate the detectorists hobby, as some land is unsuitable and other areas are under the ownership of bodies such as the National Trust, which prohibit detecting. As is apparent across the country, the scale of participants and reporting is not properly understood and therefore the significance of reported finds is difficult to assess (Robbins 2014: 13–14). All that can be concluded here is that there are more finds present than often thought, and that they constitute the same categories of artefacts as are found elsewhere in England. They span the periods before and after the Dykes are presumed to have been built, and occur in both clusters and with 'blank' areas.

It can be seen that movement of artefacts through the early medieval period continued on both sides of the Dykes through the period, even after their building, indicating perhaps that their construction did not exercise a totally restrictive regime on the British, and supporting Belford's (2017: 83) assertion that the Dykes only operated in their capacity as barriers of some sort for a relatively short period. This is set against a reduced number of artefacts being found to the west of Offa's Dyke in the north. Instead it is apparent that, in line with the assertions of Delaney (2021) and Ray and Bapty (2016), the southern part of the area was of a different character and may have been one of more fluid interaction between the Anglo-Saxon kingdom of Mercia and its peoples, and the British. Indeed, there may have been little in the way of barrier here. Nor is there evidence from the artefacts for any controlled routes through the dykes, although this is an admittedly small sample, and areas which may have been routes through are perhaps unlikely to be detected. Finer grained research than has been carried out here is required to draw further conclusions about the operation of the Dykes and the characteristic of the surrounding landscape but the evidence given here presents some intriguing possibilities for further study.

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Appendix – List of PAS data used in this survey

PAS Number	Object type	Date from AD	Date to AD	Location designation
LVPL-EFE07D	BELL	850	1100	Cheshire West and Chester
LVPL-71C370	BELL	900	1000	Cheshire West and Chester
LVPL-E1F877	BROOCH	500	600	Cheshire West and Chester
LVPL-501633	BROOCH	480	500	Cheshire West and Chester
LVPL-BFBC1E	BUCKLE	450	600	Cheshire West and Chester
LVPL1327	COIN			Cheshire West and Chester
LVPL-B32CD5	COIN	825	828	Cheshire West and Chester
LVPL-1DCD95	COIN	1029	1036	Cheshire West and Chester
LVPL-C15BC5	COIN	796	798	Cheshire West and Chester
HESH-91B1F6	HARNESS FITTING	1000	1100	Cheshire West and Chester
LVPL-C63F8A	HOARD	850	950	Cheshire West and Chester
LVPL-3E48B7	HOOKED TAG	800	1100	Cheshire West and Chester
LVPL2071	INGOT	900		Cheshire West and Chester
LVPL-9CC262	PIN	500	800	Cheshire West and Chester
LVPL-07AAB3	PIN			Cheshire West and Chester
LVPL1299	PIN	700	800	Cheshire West and Chester
LVPL-1E1E51	PIN	700	850	Cheshire West and Chester
LVPL-6AC0A7	PIN	700	800	Cheshire West and Chester
LVPL-A32966	PIN	800	1000	Cheshire West and Chester
LVPL-95AE43	SPINDLE WHORL	410	1500	Cheshire West and Chester
LVPL-781838	SPINDLE WHORL	410	1200	Cheshire West and Chester
WREX-788028	STIRRUP	1000	1100	Cheshire West and Chester
LVPL-CE9364	STIRRUP	1000	1100	Cheshire West and Chester
LVPL-CF45D4	STIRRUP	850	1066	Cheshire West and Chester
LVPL-A34D27	STIRRUP	1000	1100	Cheshire West and Chester
LVPL-74EDA0	STIRRUP	1000	1100	Cheshire West and Chester
PUBLIC-CB60F8	STRAP END	800	1000	Cheshire West and Chester

LVPL-CF7822	STRAP END	400	1066	Cheshire West and Chester
LVPL-E6C6A0	STRAP END	900	1100	Cheshire West and Chester
LVPL-E3B043	STRAP END	800	1000	Cheshire West and Chester
LVPL-123B9B	STRAP END	800	900	Cheshire West and Chester
LVPL-4B46A3	STRAP END	800	1100	Cheshire West and Chester
LVPL-4B8655	STRAP END	750	1100	Cheshire West and Chester
LVPL-D1295B	STRAP END	800	1000	Cheshire West and Chester
LVPL-628B62	STRAP FITTING	1000	1200	Cheshire West and Chester
LVPL-30CCE0	SWORD	850	900	Cheshire West and Chester
LVPL-A60C7D	UNIDENTIFIED OBJECT	410	1500	Cheshire West and Chester
LVPL-935C88	WEIGHT	1400	1800	Cheshire West and Chester
LVPL1684	WEIGHT	900	1000	Cheshire West and Chester
HESH-650301	AXEHEAD	1000	1500	County of Herefordshire
HESH-54C557	BELL	950	1500	County of Herefordshire
HESH-9145D1	BROOCH	900	1000	County of Herefordshire
HESH-0969E0	BROOCH	900	1000	County of Herefordshire
HESH-B8F058	BROOCH	430	550	County of Herefordshire
HESH-B90507	BROOCH	480	600	County of Herefordshire
WAW-5ACBD8	BROOCH	400	600	County of Herefordshire
HESH-989BE4	BUCKLE	950	1000	County of Herefordshire
HESH-1F7483	BUCKLE	1000	1200	County of Herefordshire
HESH-F54465	COIN	700	715	County of Herefordshire
HESH-5AD183	COIN	800	900	County of Herefordshire
HESH-5AFD80	COIN	830	855	County of Herefordshire
HESH-5B1DB2	COIN	695	715	County of Herefordshire
HESH-C9EF2A	COIN	700	710	County of Herefordshire
HESH-B37EA8	COIN	700	750	County of Herefordshire
HESH-1F9457	FINGER RING	700	1200	County of Herefordshire
PUBLIC-85A6BB	HARNESS FITTING	1000	1100	County of Herefordshire

HESH-928C27	HARNESS FITTING	1000	1100	County of Herefordshire
HESH-E23843	HARNESS FITTING	950	1100	County of Herefordshire
HESH-38B3C2	HARNESS FITTING	1000	1150	County of Herefordshire
HESH-DD7A35	HARNESS FITTING	900	1100	County of Herefordshire
HESH-5F3545	HARNESS FITTING	1000	1150	County of Herefordshire
HESH-B925B6	HARNESS FITTING	1000	1150	County of Herefordshire
NMGW-EE6D80	HARNESS FITTING	900	1200	County of Herefordshire
NMGW-A96F63	HOOKED TAG	800	900	County of Herefordshire
HESH-1F8A76	MOUNT	700	1200	County of Herefordshire
HESH-B53141	MOUNT	950	1100	County of Herefordshire
PUBLIC-235A85	PIN	700	1000	County of Herefordshire
PUBLIC-9B7CB2	PIN	700	1300	County of Herefordshire
HESH-859D01	PIN	650	900	County of Herefordshire
HESH-85ADC8	PIN	650	900	County of Herefordshire
HESH-85C3B3	PIN	650	900	County of Herefordshire
HESH-85CC82	PIN	650	900	County of Herefordshire
HESH-EA0514	PIN	700	900	County of Herefordshire
HESH-B89D55	SCABBARD	1000	1200	County of Herefordshire
HESH-85E083	SLEEVE CLASP	500	600	County of Herefordshire
HESH-926A22	SLEEVE CLASP	550	800	County of Herefordshire
HESH-09A4C1	SLEEVE CLASP	550	800	County of Herefordshire
WMID-F1C7FE	SPINDLE WHORL	500	800	County of Herefordshire
SOM-DDB789	STIRRUP	1000	1100	County of Herefordshire
HESH-89989A	STIRRUP	900	1100	County of Herefordshire
HESH-84F602	STIRRUP	950	1150	County of Herefordshire
HESH-5E2177	STIRRUP	1000	1100	County of Herefordshire
HESH-5E3A13	STIRRUP	1000	1100	County of Herefordshire
HESH-1E7057	STIRRUP	1000	1100	County of Herefordshire
HESH-DCFBE4	STIRRUP	1000	1100	County of Herefordshire

HESH-F65251	STIRRUP	950	1150	County of Herefordshire
PUBLIC-5C7155	STIRRUP	1000	1100	County of Herefordshire
HESH-85D275	STRAP END	800	1000	County of Herefordshire
HESH-85D871	STRAP END	800	1000	County of Herefordshire
HESH-9296F6	STRAP END	850	1000	County of Herefordshire
HESH-4A3348	STRAP END	800	1000	County of Herefordshire
HESH-5B0FE0	STRAP END	750	1000	County of Herefordshire
WMID359	STRAP END	410	1066	County of Herefordshire
HESH-D19A4D	STRAP END	850	1100	County of Herefordshire
HESH-2CEEC8	STRAP END	800	1000	County of Herefordshire
HESH-A5C033	STRAP END	800	1000	County of Herefordshire
HESH-CCD6C7	STRAP END	750	1050	County of Herefordshire
HESH-12BE08	STRAP END	800	900	County of Herefordshire
HESH-2A3CC9	STRAP END	800	1000	County of Herefordshire
HESH-D9E760	STRAP END	800	1000	County of Herefordshire
HESH-35C553	STRAP END	900	1500	County of Herefordshire
HESH-9D2877	STRAP FITTING BELT PLATE	500	800	County of Herefordshire
HESH-C6C958	STYLUS	700	1200	County of Herefordshire
HESH-F3BC94	SWORD	600	850	County of Herefordshire
HESH-A29404	SWORD	900	1100	County of Herefordshire
HESH-B8FE61	UNIDENTIFIED OBJECT	400	900	County of Herefordshire
HESH-62594A	VESSEL	1000	1200	County of Herefordshire
HESH-927418	VESSEL	500	700	County of Herefordshire
LVPL-CDD0D0	BOOK FITTING	1000	1200	Denbighshire
WREX-C2544A	BROOCH	750	850	Denbighshire
NMGW-3E31B4	BROOCH	700	800	Denbighshire
LVPL-FC2097	NEEDLE	500	1000	Denbighshire
WREX-ABEEDC	PIN	700	900	Denbighshire
CPAT-28F196	STRAP END	800	999	Denbighshire

LVPL-30A793	BROOCH	750	1000	Flintshire
LVPL-7D2F34	COIN	1056	1059	Flintshire
WREX-C1D6F4	COIN	946	955	Flintshire
NMGW-799430	INGOT			Flintshire
LVPL-918135	MOUNT BOOK?	600	900	Flintshire
HESH-66049B	PENDANT	50	1100	Flintshire
LVPL-5EAC05	STRAP END	400	1066	Flintshire
CPAT-3952B8	SWORD	800	999	Flintshire
LVPL-0A5FB1	SWORD	900	1100	Flintshire
LVPL-3E7790	TILE	400	1066	Flintshire
WREX-6BB64D	UNIDENTIFIED OBJECT BELL	700	1100	Flintshire
GLO-BA7C52	BUCKLE	1000	1200	Forest of Dean
NMGW-F408B2	MOUNT POSS HORSE HNSS	400	600	Forest of Dean
GLO-BA85B6	STRAP END	750	1000	Forest of Dean
NMGW-A7BF76	BRIDLE BIT	1000	1100	Monmouthshire
NMGW-D7AF23	BUCKLE	1000	1099	Monmouthshire
NMGW-9A4808	COIN	690	710	Monmouthshire
NMGW-EC9AAB	COIN	985	991	Monmouthshire
GLO-2DE06C	HARNESS FITTING	1000	1100	Monmouthshire
NMGW-08658C	HARNESS MOUNT	600	800	Monmouthshire
NMGW-1585CD	HOOKED TAG	650	1000	Monmouthshire
NMGW-2A73A3	KNIFE	410	1066	Monmouthshire
NMGW-583281	SPUR	1000	1100	Monmouthshire
NMGW-A7B175	STIRRUP	1000	1100	Monmouthshire
NMGW-BD99AF	UNIDENTIFIED OBJECT			Monmouthshire
WAW-FF3CA7	VESSEL	500	700	Monmouthshire
NMGW-40A462	WHETSTONE	410	1066	Monmouthshire
PUBLIC-11D081	BEAD	530	590	Powys

NMGW-FF0EE5	BROOCH	400	600	Powys
HESH-33C368	COIN	685	690	Powys
CPAT-4FE335	DAGGER			Powys
WMID-727B32	MOUNT BOOK?	500	1100	Powys
WAW-CD6641	STIRRUP	1000	1100	Powys
NMGW-3457EA	STRAP END	700	900	Powys
HESH-96F9A6	BELL	950	1500	Shropshire
LVPL-1ACFF1	BRIDLE BIT	1000	1100	Shropshire
HESH-A2B977	BRIDLE BIT	1000	1100	Shropshire
HESH-3AC4C6	BROOCH	800	1000	Shropshire
HESH-BD1AD8	BROOCH	450	720	Shropshire
WREX-9B19C9	BROOCH	410	849	Shropshire
HESH-C34EB7	BROOCH	900	1000	Shropshire
HESH-F3BEB9	BROOCH	420	550	Shropshire
WREX-D5FC73	BROOCH	750	925	Shropshire
HESH-892D22	BUCKLE	900	1100	Shropshire
HESH-696AA7	COIN	979	985	Shropshire
CPAT-049EA1	COIN	979	985	Shropshire
HESH-E20370	COIN	995	1005	Shropshire
LVPL-EF4421	DAGGER	950	1100	Shropshire
HESH-260152	DRESS FASTENER (UNKNOWN)	500	1050	Shropshire
HESH-6E0600	DRESS FASTENER (UNKNOWN)	500	1050	Shropshire
HESH-B61048	FINGER RING	410	750	Shropshire
HESH-E9BFD8	HARNESS FITTING	1000	1200	Shropshire
HESH-E9EF21	HARNESS FITTING	1000	1200	Shropshire
LVPL-D9F581	HARNESS FITTING	800	1100	Shropshire
HESH-20DD55	INGOT	800	1000	Shropshire
HESH-D2D0A6	KEY (LOCKING)	900	1100	Shropshire

CPAT-DAD880	KEY (LOCKING)	800	1100	Shropshire
FAKL-DFAC23	MOUNT	470	570	Shropshire
HESH-00EAF2	MOUNT	900	1100	Shropshire
HESH-E9D295	MOUNT VIKING IRISH	650	850	Shropshire
HESH-4844A4	PENDANT	750	1050	Shropshire
HESH-A2AEF1	PIN	720	850	Shropshire
LANCUM-E91A57	SCABBARD	550	625	Shropshire
SWYOR-CEAECD	SPINDLE WHORL	500	850	Shropshire
HESH-425F5F	STAFF	1000	1200	Shropshire
HESH-2B3DC7	STIRRUP	1000	1100	Shropshire
HESH-B49325	STIRRUP	1000	1100	Shropshire
WMID-C6C5F6	STIRRUP	1000	1100	Shropshire
CPAT-B14AE7	STRAP END	750	1100	Shropshire
HESH-892F38	STRAP END	800	1000	Shropshire
HESH-C708E7	STRAP END	900	1100	Shropshire
HESH-845014	STRAP END			Shropshire
WMID-FC3DA6	STRAP END	750	950	Shropshire
CPAT-9658C4	STRAP END	930	1050	Shropshire
HESH-E814B2	STRAP END	800	1000	Shropshire
CPAT-9CCC47	STRAP END	900	1100	Shropshire
HESH-896A82	STRAP END	800	1000	Shropshire
HESH-D0DF34	STRAP END	800	1000	Shropshire
LVPL-4A2CC5	STRAP END	750	1100	Shropshire
HESH-56AE46	WEIGHT	750	1000	Shropshire
LVPL-6BF678	BROOCH	450	550	Wrexham
WREX-C232E2	BROOCH	450	750	Wrexham
WREX-9F2C2D	COIN	710	750	Wrexham
LVPL-20C747	COIN	700	710	Wrexham
CPAT-4AAF81	COIN	796	805	Wrexham

HESH-91A1D7	HARNESS FITTING	1000	1100	Wrexham
HESH-ABE884	HARNESS FITTING	1000	1200	Wrexham
HESH-26E9D1	MOUNT	750	900	Wrexham
HESH-BFB171	PIN	700	900	Wrexham
NMGW-6A4AAD	STRAP END	800	900	Wrexham
WREX-E4B61E	STRAP END	800	1000	Wrexham

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Treaties, Frontiers and Borderlands: The Making and Unmaking of Mercian Border Traditions

Morn Capper

This article explores the complexity and nuance of borderlands and border relations focusing on Mercia. Identifying a host of border maintenance strategies negotiating control over people, places and resources, mitigation of risk and maximisation of opportunity, but also strategic escalation and de-escalation of tensions, the study re-evaluates how Mercian border traditions supported expanded hegemony between the seventh and ninth centuries. The significant departures of the approach presented here are (i) rethinking the traditional focus on military, religious and ethnic identities to integrate these among other activities and experiences defining early medieval frontiers and borderlands and (ii) considering the reimagining not only Mercia's frontiers and borderlands during its emergence and heyday as a kingdom but also reflecting on how Mercian territory itself became a borderland under the rule of Aethelred and Aethelflaed during the Viking Age, and as such how it was formative in the creation of the Danelaw and of England. The Alfred/Guthrum Treaty and Ordinance of the Dunsaete are here contextualised against other strategies and scales of negotiation and activity framing Mercian/Anglo-Welsh and Anglo-Danish borderlands. Different 'Mercian borderlands' are compared in this study and analysed as complex zones of interaction, responsive to geographical factors, but also criss-crossed by multi-stranded pathways of daily life. Mercian borderlands were understood and maintained militarily, physically, spiritually, and ideologically. The article considers how these zones were shaped by convenience but also need and were reinforced or permeable at locality, community and kingdom levels.

Keywords: Aethelflaed, Alfred/Guthrum Treaty, Anglo-Welsh borderland, charters, Danelaw frontier, Mercia, trade, Vikings

Introduction: Imagining frontiers, borders and borderlands

The interdisciplinary analysis of frontiers, borders and borderlands has great potential to examine the complexities and nuances of relations between early medieval kingdoms, societies and communities However, the historiography of each of these overlapping terms carries significant tensions which must be recognised here.

Analyses of Mercian borders and borderlands emerged from a wider and older scholarship on 'frontiers'. Historically influential, Turner's (1921: 3) frontier was a limiting yet 'elastic' term, located in the 'peculiarity' of American expansionism and the ideals of frontier society. This approach had value in analysing 'Christendom's self-definition', particularly where 'frontier' perspectives deeply permeated societies bordering non-Christians, as in Iberia and Eastern Francia (Berend 1999: 71). Elsewhere, however, this approach failed to consider narrower, more incidental and more localised forms of borderland. Berend (1999: 68) therefore makes a differentiation: 'frontiers [operated] in the sense of border-lines delimit administrative units; [whereas] frontiers in the sense of

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borderlands are places where interaction between societies (the form of which varies) takes place'. Difficulties with the meaning of 'frontier' for both a linear administrative feature in British English popular useage, and an American English use to refer to 'land of opportunity', saw a widespread retreat from that terminology in academic work during the twentieth century (Power 1999). By way of contrast, the term 'march' (from OE *mearc*), although appropriate, and familiar in Carolingian contexts, for early medieval Britain carries added anachronism in conjuring post-Norman Conquest associations, military organisation and territorial structures (Lieberman 2010; Brady 2017: 8). This terminological confusion renders the terms 'borders' and 'borderlands' preferred in this research, with frontier only cautiously used where the polities framing borders, borderlands and border agreements were themselves being re-imagined.

In the context of academic work on medieval Europe, frontiers between ethnic identities have received particular analysis following the breakup of eastern Europe in the 1990s (Geary 2002). For early medieval Britain, the continued use of 'frontier' terminology for the Viking Danelaw and *Alfred/Guthrum Treaty* (Davis 1982; Kershaw 2000; Griffiths 2001) has perhaps encouraged scholars seeking Viking perspectives to emphasise macro, ethnic and religious differences, whether interior or exterior; only gradually moving to explore the diverse agency of rulers or mixed local populations in formulating engagement across borders.[1] Despite cultural, ideological and linguistic differences, such borderlands still emphasise connectivity, affirming that communication across medieval borders could not truly be severed.

The emphasis on militarised frontiers was once pervasive. Studies focusing on the more archaeologically visible fortifications along Roman frontiers, including Hadrian's Wall, until quite recently perhaps stunted more nuanced analyses of those longer-lived borderlands (Petts 2013: 324; Hingley 2018). Imperial considerations also shaped conceptions of early medieval borders and borderlands. For instance, Curzon (1907: 13) differentiated 'natural' from 'artificial' borders, by which he categorised not only Hadrian's Wall, but also Offa's Dyke and the Watling Street line of Alfred and Guthrum, however his easy parallels between 'Mercia' or 'the Marches' and the neutralised frontiers of expansionist British and Roman Empires which 'have to be settled, demarcated and maintained' (p.9) also implied increasingly uncomfortable colonial legacies (Berend 1999, 67; Gardner 2017). Although warfare has long been rightly critiqued as only one among a rich tapestry of 'devices' enabling human interactions (Berend 1999: 61), for Mercians and other militarised societies warfare remained a vital strategy of governance and border maintenance, integrated with others in negotiating social and religious ideologies, acquisition of land and resources, kingship and kingdom formation, between rulers and ruled (Capper 2008 and forthcoming a). This article explores the diversity of Mercian borders and the interactions and authorities that framed them. Early medieval Britain and Ireland held many opportunities for exchanges of culture and ideas, but relations between the polities that met at borders were constrained by lordly imperatives, complex ethnic and religious ideologies and competing cultural traditions,

[1] The term: 'Viking' appears here in its broadest multi-ethnic sense to denote activities.

motivating and affirming their social cohesion. Diverse and regionalised, seventh-century polities were increasingly territorial and resource-centric, producing economic surplus that was exchanged at borders. Sites and landscapes core to local formulations of communal identity and assembly in political or religious terms became contested at political margins of larger polities as natural, prehistoric, Roman and contemporary features became entangled between contemporary political and ideological desires that responded differently to questions of scale. Such borders might reflect both physical and landscape boundaries, but also conceptual boundaries and 'gaps in social networks': emphasising the 'experiential reality' of borderlands therefore enables insight (Pelkmans and Umetbaeva 2018: 549). Negotiating borders was a stimulus to the emphasis of difference, or merely its recognition: 'borderwork', as termed by Rumford (2013: 23), might be equally driven by the agendas of locals as by those of the state.

Essential to understanding the shifting borders and borderlands of the Mercian kingdom (Capper 2020, forthcoming a) is recognition that royal and territorial hegemony remained a recursive relationship between the authority of Mercian overkings and the interests of regional peoples and their representatives. The Mercians (OE *Mierce*) were a people named early for their border status (*ASC* 657, *HE* I, ch.15, Latin *Mercii*). The seventh-century kingdom, its strategies and borders reflected royal authority, but also regionalised economic and cultural circumstances. The boundaries of hegemony were shaped by communities of experience, maintained as much by the socialisation of the Mercian community under arms and adaptation of local religious practices and trading settlements as by the elite gatherings and ecclesiastical councils that in written records more-visibly melded its ideology. The negotiation of border relationships was therefore ongoing during Mercian expansion, as geographical markers such as seas, rivers were adopted, breached or reinforced by human activity. At first the limited machinery of Penda's Mercian rule brought together peoples serving the same overlord but requiring only mutual understanding and fidelity over religious agreement (*HE* III, ch.21), Mercian hegemony only slowly linked common interest to identity, ideology, service, administrative systems, economic devices or common culture. This study demonstrates that analysis of any singular Mercian borderland may underestimate the disparity between them, the available sources of evidence, and the diversity and nuance of borderwork negotiated by the Mercian community and its leadership. Comparing Mercian borderlands through the crisis of hegemony (825–829) and divisions by the Viking Great Army in the 870s and Wessex in 911 illustrates how divergence or agreement between layers of political, military and ecclesiastical authority in borderlands gave rise to political orthodoxies, asymmetries and tensions, on both sides of the Mercian border, that those with authority, knowledge and cultural sensitivity could choose to uphold, manipulate or overcome. The interests of familiar neighbours and allies as much as incomers ensured the breakup and reconfiguration of Mercian borders as Mercia was transformed as a borderland for the tenth-century English kingdom (Figure 1).

Background: Seventh-century borders during Mercian expansion

Expanding seventh-century kingdoms operated by juxtaposing royal power, military and religious authority in search of resources, tribute and political capital. After conversion, seventh-century English diocesan bounds expanded alongside aligned military and political overlordships. For Northumbria, the key rulers in question are Oswy (r. 642–670) and Ecgfrith (r. 670–685), while in Mercia the rulerships of Wulfhere (r. 658–675) and Aethelred (r. 675–704)[2] created nebulous borders and frontiers of opportunity based on aristocratic relationships, common interest and control of resources, reinforced by tribute taking (Higham 2006a; Capper 2008, forthcoming a). Markets, gift exchange, missionaries and even warbands easily permeated the borders between these vast overlordships, sustained largely by personal loyalties and the political capital from plunder, tribute and kin relations. Consequently, such fragile borders mattered deeply to royal authority. For example, Mercian monastic landholding by Bishop Wilfrid at Oundle (d. 709/710; Fig. 1) spanned across the borders of rival Northumbrian overlords and was considered dangerous, which caused him multiple periods of exile. This was particularly evident when Wilfrid sought rival royal patronage from Aethelred of Mercia's nephew, Beorhtwald, on Mercia's southern border (Capper 2013: 263, 271). A further illustration of border fragility arose out of competing Mercian and Northumbrian overlordship of Lindsey. Bishop Seaxwulf of Mercia in 674 and then Bishop Eadhead, the Northumbrian appointee to Lindsey in 679, fled when their respective political overlords Wulfhere of Mercia and Ecgfrith of Northumbria lost control there. These long-running tensions eventually led Archbishop Theodore to create a local diocese at Lincoln after Mercian victory at the Trent in 679 to resolve the conflict (*HE* II, ch.16, IV, ch.3, ch.12; Thacker 1985: 3; Capper 2012, forthcoming a).

Expanding borderlands offered mixed opportunities. After King Aethelred of Mercia burned Rochester in 676, its Bishop Putta fled to his protection and received shelter in western Mercia. Meanwhile, St Guthlac's Mercian warband profited during his early military career in the 680s–690s: his *Vita* reported critically on the failure of Penda's grandson Coenred (r. 704–709) to defend Mercian borders (*VG*, ch.34; Capper 2020: 183, 194–197, 200).

These zones also had ideological roles. Post-Roman British Christian identities were themselves proud and diverse, the product of 'manifold' interactions and claims (Petts 2013). Identification of borderlands with British peoples, however, operated them as frontiers of belief and opportunity since they served to both deny legitimate British rule and perhaps also to encourage their ideological othering. This is evidenced most notably by Bede, who blamed the Britons for failing to convert the English. More specifically, Bede damned the Christian Caedwallon of Gwynedd, far more severely than he criticised his pagan ally Penda, with whom Caedwalla killed King Oswald and devastated the Northumbrian kingdom (*HE* I, ch.22; II, ch.20; Foley and Higham 2009: 155).

Religious ties operated across borderlands. On a European scale we can perceive early medieval clergy often facilitated engagement across borders reinforced by political,

[2] Special characters haves been reduced for improved accessibility.

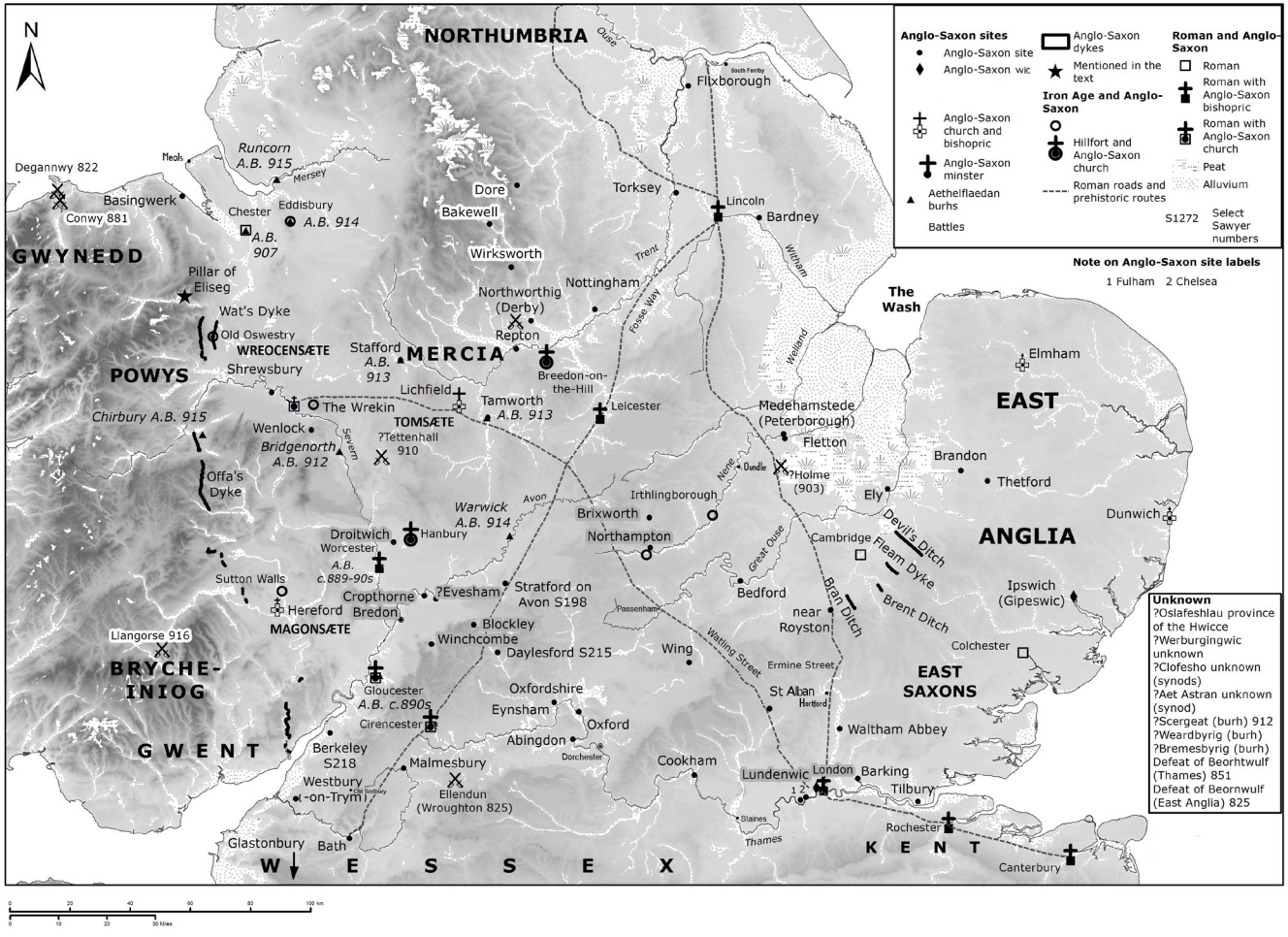

Figure 1: Mercian borderscapes, c.700–950. (drawn by Doug Mitcham, designed by Morn Capper)

cultural and linguistic differences. This helps us to suppose how a west-Mercian Bishop Walhstod, named or by-named the 'interpreter', usefully preached beyond the Severn c. 731 (Compare S1410; Capper 2020: 201); a shallow font for adult baptism (or re-baptism) is among the speculated uses for a coarsely re-cut Roman pillar from Wroxeter found at Woolstaston, Shropshire (Bryant *et al.* 2010: 386–387). Opportunities to obtain exotic goods incentivised cross-border exchange and, in the mid-seventh century, both ecclesiastical networks and early emporia used borderlands between polities to facilitate wider networks of trade-routes, where councils, emporia or beach markets enabled the exchange of ideas, but also wines, incense and spices available to Bede (Colgrave and Mynors 1969: 584). These locales might have operated as 'third spaces' enabling 'constant dialogue': where 'binary oppositions' broke down and hybridity or co-mingling were possible (Naum 2012: 58). Over time, such ambiguities were arguably circumscribed as councils enforced orthodoxy and populous emporia became closely-supervised tools to allow local agricultural surplus and profits from warfare and slavery to be exchanged, processed and monetised by kings (Madicott 2005; Capper forthcoming a). The broad territorial stability of late-seventh-century polities, but also the economic and cultural exchanges across their borders, became important attractions for expanding eighth-century Mercian hegemony, over the richer kingdoms of the South East especially.

Asymmetry and identity as a tools in border relations

Borders that focus on maintaining interior identities or macro interests may modify or deny the needs of individuals or groups to achieve societal cohesion. Traces of political, social or juridical rights and economic networks reflect how agreements were negotiated to shape relations or boundaries within or between polities and peoples. Whereas Penda's Mercian raiding promoted collaboration between English and British warbands in order to enhance the powers of his military overlordship, during West Saxon expansion, the seventh-century *Laws of Ine* granted the British/'Welsh' (*Wealh*) noble or 'taxpayer (*gafolgelda*)' under his rule a wergeld half that of 'English' identified ranks (Jurasinski and Oliver 2021: 399). Over time, as Woolf has argued, unfavourable status placed Britons, who were increasingly described as Welsh, at personal legal protective and economic disadvantage, discouraging British success under West Saxon rule (*Laws of Ine*, 23.3, 24.2; Woolf 2007: 127). Without fixed territorial borders the 'borderwork' was enacted socially, internal bordering applied by personal identification with specific linguistic, cultural and religious customs and legally reinforced was probably communally monitored and less easily modified (Rumford 2013). Eighth-century Mercian campaigning demonstrates hardened attitudes to Welsh kingdoms, but we lack evidence of their legal interpretation.

The late-ninth-century *Alfred/Guthrum Treaty* (*EHD*, no.34; Attenborough 1922: 98–101), used territorial boundaries to offer parity and groups under Alfred's or Guthrum's lordship received equal wergeld protection; although Alfred perhaps found such fairness easier because the negotiated border was drawn not through his West-Saxon territory, but through disrupted Mercian and East Anglian frontiers. The *Ordinance of the Dunsaete*

(*Ordinance*) memorandum also allowed each of six English and six Welsh '*lahmen*' equal legal responsibility (Brady 2017: 2–3, 2022: 8). However, by dropping penalties to a half-wergeld for visitors to the opposite riverbank, a locally agreed asymmetry of protection also encouraged each group, English and Welsh, to stay within their own territory unless supervised. The nested identities of individuals and the entangled loyalties of the *Wentsaete* and *Dunsaete* to each other and to their overlords are acknowledged – their ethnicities are clearly presented as English and Welsh, '*þa Angelcynnes witan*' and '*Wealhþeode*' – situating border agreement within social networks of ethnic loyalties, local witnesses and lordly protections (Brady 2022, but compare Guy 2022): although for earlier tenth-century dating available sources suggested no recent conflict (Kershaw 2000: 44). Conversely, Molyneaux (2012) preferred a late tenth- or early eleventh-century date. This layering of macro-politics with everyday concerns by the *Ordinance* illustrates the vital roles of local people in regular border maintenance and monitoring. Protection by distant higher powers was established by a request for royal permission for peace hostages from the *Wentsaete* (probably in/near Gwent) 'if the king will grant it' (9.1), but held in reserve, only to be invoked by border crossing or provoked by failure of the agreement. Circumspection was essential: although peripatetic kings offered vital security, mistreatment of their representatives or breach of protocols invited the disruptive presence of overlords, their armies or their representatives to adjudicate border flashpoints and risked unintended repercussions, interventions or exactions and services being imposed whereby local autonomy could be hampered.

Borders, protection and royal authority

Royal activity and responsiveness to border concerns operated on different scales and was circumstantial. As such, it was conditional on royal resources and rarely timely or proportionate over distance. Successful Mercian campaigns under Aethelbald (*ASC* 743), Offa (*AC* 778) and Coenwulf (*AC* 798) provided profitable demonstrations of royal authority over Welsh neighbours. Yet, military campaigning, once provoked, required resources and mobilisation for warfare and thus promoted instability. Alfred therefore repeated Ine's legal provisions for an elevated wergeld to protect his own '*horsewealh*' (probably a Welsh rider in royal service) as a preventative measure (Jurasinski and Oliver 2021, 399). Although southern Welsh kings submitted to Alfred's overlordship for protection, Asser's account left uncertain whether Alfred's intercession would reach beyond their presence at his court, despite depredations by other subordinates, namely Anarawd of Gwynedd, who swore loyalty to Alfred in person, and his close ally the so-called '*tyrannus*' Aethelred of Mercia (Asser ch. 80). Like Bishop Wilfrid previously, Asser found that his cross-border monasteries in Wessex risked the appearance of unclear loyalties: he eventually accepted the West Saxon bishopric of Sherborne, Dorset (Asser ch. 80, ch. 81; *ASC* 909); similarly, Alfred's Mercian mass-priest Athelstan later became Bishop of Ramsbury (Pratt 2007: 57). The Severn estuary, another Anglo-Welsh border, demonstrated layered obligations: a charter of King Brochfael ap Meurig granted his Bishop Cyfeiliog lands and perhaps landing rights at the mouth of the River Troggy, Gwent c. 895, whereas King Edward (a distant overlord), ransomed him only

when Viking raiders carried him away from Ergyng toward West-Saxon Somerset (*ASC* 914). Written records offered incomplete or retrospective justifications: many Mercian campaigns across borders were recorded by their victims.

Reporting events in 910, which ended in the victory at Tettenhall against the Northumbrians, the West Saxon Winchester *Chronicle A* ignored joint Mercian and West Saxon campaigning into Northumbrian territory in 909. It thus claimed the 910 Northumbrian invasion of Mercian borders was unjustified: 'the army in Northumbria broke the peace, and scorned every privilege that King Edward and his councillors offered them' (*ASC A* 909,910). Exceptionally, archaeological evidence for the burning of Llangorse Crannog (Brecon) supports the documented burh building among proofs of Aethelflaed's decisive maintenance of her Anglo-Welsh and Irish Sea borders (Lane and Redknap 2019). Personal service and authority remained essential to secure ties of lordship. The murder of her Mercian Abbot Ecgbert in 916 during Mercian campaigning against the east-Mercian Danelaw saw swift retribution across the border, reinforced by hostage-taking: 'three days later Aethelflaed sent an army into Wales and destroyed *Brecenanmere* and captured the king's wife and 33 other persons' (*Mercian Register* 916; Capper forthcoming b). Timescales here more closely parallel the precipitous invasion of Wessex in 802 'the same day' (below) than the consideration given to favour peaceful resolution by the later and locally negotiated *Ordinance of the Dunsaete*: '...always after nine days right ought to be done' (ch.2). Comparing the Welsh *Laws of Hywel Dda*, of contested date, with Alfred's laws (Jurasinski and Oliver 2021: 399), even killing a royal servant might be mitigated, on either side of the Anglo-Welsh border, by payment of doubled wergeld to restore peace. Circumstantially, however, compensation was not acceptable. Instead, the Welsh killing of a Mercian churchman in wartime was considered provocation and betrayal of Aethelflaed's overlordship, an act requiring fuller military response and hostage-taking was necessary to restore order. Responsibility for the maintenance of Mercian borders demonstrated Aethelflaed's authority and Mercian autonomy.

Economic resources and cultural capital

Medieval borders rarely had sufficient infrastructure to prevent the determined from acquiring resources and/or ideas, nor should homogeneity within them be presumed. Although Bede (d. 735) criticised Britons as heretics, he admitted knowing elements of their language through written texts and personal communication, naming places and saints, whereas he refused to acknowledge Mercian saints. The ninth-century *Historia Brittonum* accessed English genealogical information, but its Preface, which probably reflects later attitudes, also famously acknowledges with some surprise the annals (or perhaps histories) of the Saxons and Irish used in its compilation, '*de annalibus Scottorum Saxonumque*', alongside 'our ancient traditions', and pronounces their authors 'our enemies' (Campbell 1979; Dumville 1975/6, 79–80; Higham 2006b). In the material sphere, as Naismith (2017; 2022: 26–27) observes, the Mercian unitary coinage of King Offa (757–796) was a 'watershed' in the mobility of money. However, beyond the reach of coastal trade in the South and East, Portable Antiquities finds suggest agricultural economies across Wales, but also the West Midlands north of the *Hwicce* rarely exchanged using

coinage, presumably focusing on possession and judgement of livestock, bullion and renders (Capper forthcoming a). Coinage was rare on either side of Offa's or Wat's Dykes until the end of Mercian independence after 874, and, with no identified mints, despite Mercian taxation for Viking tribute and Alfred's small issues at Gloucester and Oxford or Edward's at Bath after the Welsh submissions to Wessex (below), monetisation in western Mercia proceeded reluctantly until Aethelflaed produced coin in her brother's name (Capper forthcoming b). On Mercia's other frontiers, ninth-century Northumbrian trade partners developed a long-lived but incompatible coinage of copper 'stycas' when demand exceeded bullion supply, until Viking silver revived coins of Viking York. Mercian London produced coin, if only in Alfred's name by c. 880, Scandinavian-held territories in former East Mercia and East Anglia also maintained monetisation but with explicit weight differences from Alfred's standards (Naismith 2017: 286, 301): in East Anglia some regional coinages persisted with pre-Alfredian lighter weights even after his son Edward was named on local coinage (Blackburn 2006: 208). Furthermore, not all prestige goods crossed even regional boundaries as successfully as bullion, traded easily or were exchangeable by prestation, unless value was authenticated by trust and legitimacy (Curta 2006: 675). The Lichfield Gospels, taken to Llandeilo Fawr in Wales in the early ninth century, record their secular exchange for only a good horse before being gifted to Llandeilo Fawr. Plausibly their regional style of illumination and numerous textual divergences from the Vulgate, only paralleled by the Hereford Gospels, perhaps made this heritage uncomfortable, devaluing them much beyond a western-British cultural context (Jenkins and Morfydd 1983: 46–47). Likely status as stolen relics probably further reduced their spiritual value (cf. Sims-Williams 2019: 12), their return to Lichfield maybe reflect its identity as a west-Mercian diocese with authority over formerly British churches about which we are insufficiently knowledgeable. Despite Mercian hegemony and pan European trading networks, the scope of daily communications ensured differences between Mercian border traditions and that many cultural practices retained more regionalised resources and characteristics.

Limits to Mercian expansionism: negotiating frontier territories, geography and physical experience

Natural frontiers, whether seas, difficult terrain such as mountain ranges (and forests) or resource poor areas deserts and marshes required skilled navigation and were often hard to close (Abulafia 2005), thereby creating obvious potential 'gaps' in social networks but also royal control. Naismith (2022: 17) describes the porous nature of maritime borders, particularly to traders. That numerous coins of Cynethryth, celebrating her as wife of Offa during the 780s, predate a unique new coin celebrating Fastrada (d. Frankfurt 794), as queen-consort of Charlemagne, may suggest Mercian as well as Roman inspirations for tools emphasising the status of a Carolingian queen. It also illustrates how symbols of the importance of authority over exchange within and across borders were made physical, held and handed over in daily interactions, allowing the connections and political influence of Offa's Mercian kingdom to be made visible (Coupland 2023). Early medieval maritime borders were usually enclosed at their landing-places: during Offa's famous disagreement with Charlemagne (768–814)

over marriage between their children, cross-Channel trade ceased. During this time, no-one among the English was '*to set foot* on the shores of Gaul for purposes of trade' and both sides were forbidden to set sail (Alcuin, *Ep*. 104; Story 2005: 207; Naismith 2022). This was possible only because the two hegemons controlled both the ports and the economic systems supplying the exchange of woollen cloth, its taxation (something avoided by costumed pilgrims; Alcuin, *Ep*.100) and also the coins minted for trade and taxation, which were by this time usually melted down on crossing into the Carolingian or Offan economic sphere – even then closure was short-lived. The sea therefore became an unexpected, and particularly ineffectual, border against seaborne Viking raiders.

The Severn and other rivers that remained stable within a flood plain (Pears et al 2020) were meeting places, but also weak points in social networks and in the expression of land-based power. A stable Mercian border along the upper and middle Thames was achieved first through common interest by coordinating military and administrative activities with Hwiccian and East Saxon allies in the seventh and eighth centuries, then by reinforcing prominences, rich estates and river-crossings via the foundation or sponsorship and then refoundation of monasteries at Cookham, Eynsham, Abingdon and Cirencester and expansion of Mercian royal influence over regional royal monasteries, East Saxon Barking and Hwiccian Bath, but then also Malmesbury, Gloucester, Abingdon and perhaps Glastonbury in the eighth and ninth centuries (Blair 1996). Offa thereby consolidated cross-border Mercian military victory over Wessex at Bensington in 779 with conciliar activities re-affirming the Mercian community, extending his authority in the south through Synods of Brentford (781) and Chelsea (787) until his installation of Archbishop Aethelheard in Canterbury (792) seemingly secured military control of Kent and Sussex (Blair 2006; Capper forthcoming a).

The Humber was a particularly hard-fought and negotiated border between Northumbria and Mercia; the death of King Penda in battle at the *Winwaed* in 655 saw catastrophic losses as the Mercian coalition tried to cross a flooded Humber tributary ('*inundatio*') and 'many more were drowned in flight than were destroyed by the sword in battle' ('*multo plures aqua fugientes quam bellantes perderet ensis*'; *HE*, III, ch.24). Only Mercian victory in battle on the Trent in 679 and subsequent negotiations enabled long-term stability (Higham 2006a). However, the Humber estuary also made the Trent vulnerable to repeated Viking incursions (Nottingham 868,Torksey 872/873,Repton 873/874). Once estuaries that facilitated coastal trade became linkages shaping Viking-led economies and polities, Lincolnshire again looked north: Aethelweard's statement that by 895 the York Army controlled territory in Lindsey, west of Stamford: 'between the streams of the River Welland and the thickets of the wood called Kesteven' was affirmed by similarities between the York St Peter and Lincoln St Martin coinages (Campbell 1962, 51; Blackburn 2006). Such new linkages enabled re-shaped political communities with varying long-held affinities across the maritime Scandinavian diaspora (Hadley 2009: 376; Abrams 2012; Vohra 2016).

Land borders responding to natural features such as peaks, watersheds and marshes historically have often been demarcated or reinforced by artificial structures (Curzon 1907).

The construction of Offa's Dyke evoked, at much greater scale, the same border language as other prehistoric and early medieval dykes expressing control over road and routeways, including the Cambridgeshire Dykes crossed by Penda c. 654 and Wansdyke (Langlands 2019; Capper forthcoming a). Yet underlying these since the Iron Age were persistent long-distance exchanges of minerals, cattle and slaves, and particularly metals and salt (Hooke 1983; Capper 2020); although it is uncertain that Flintshire and Cheshire ores and salt offered early Roman levels of productivity (Ward *et al* .2012: 380–382). Contributions in this journal support the cumulative effects of border structures channelling and re-shaping these liminal border-spaces, arguing that Offa's and Wat's dykes together formed a reinforcing ninth-century border system (Williams 2021; Ray 2022). Yet despite the symbolic workload of vast earthworks and associated monuments in managing the borderland (Tyler 2011; Murieta-Flores and Williams 2017) and potential use of Wat's Dyke for administrative boundaries (Parsons 2022: 121–125), ninth-century Mercian overlordship over Powys clearly exerted influence across both Wat's and Offa's Dykes (Charles-Edwards 2013; Capper forthcoming a), affirming that they consciously delineated borders for Mercian kingdom and identity rather than limiting Mercian power and relations overall. The earthworks were focal to a borderland punctuated by points of access and leverage that attempted to stabilise and supervise border relations (Ray and Bapty 2016), and which like other Mercian borders continued to be managed by the Mercians and resisted by the Welsh via raiding.

Whether such physical borders reinforced linguistic and cultural frontiers between Mercian and Welsh kingdoms is harder to establish (Parsons 2022), but specific cultural differentiations were deliberately maintained. The Welsh Bishop Elfoddw accepted Roman Christian orthodoxy in 768 under Mercian influence (*AC* 768; Capper forthcoming a). Yet, charter traditions at Llandeilo Fawr and Llandaff, in ordering their ceremonial and records of British charter diplomatic west of the River Wye, resisted conforming with English charter tradition, even where both traditions recorded in Latin and used counter-payments (Sims-Williams 2019: 107). Edwards has even proposed the Pillar of Eliseg claimed kingship over Powys via a monumentalised charter inscription (Edwards 2009: 167). This self-definition persisted despite Mercian or West Saxon overlordship until after the Norman Conquest of England (Charles-Edwards 2013: 250–256; Sims-Williams 2019: 86).

Throughout Mercian hegemony, explicit strategies of boundedness were reinforced at Mercian borders by created or adopted royal ideological markers, including earthworks, defensive sites, monasteries and saints' cults, facilitated and supervised markets and mints, trade and at times extractive relations (Capper forthcoming a). Mercian rulers, like other kings, bound Mercia together using strategies that melded power and redemption. King Aethelberht of East Anglia was killed by Offa in 794 (*ASC* 794): his cult was promoted both by dedications at the borderland bishopric of Hereford and nearby hillfort of Sutton Walls, described in his legend, but also at Offa's tomb of Bedford, where his widow governed as Abbess (*ASC* 794, 796; Capper forthcoming a). Mercian overlordship over Powys was established by sparsely-recorded victories, including Degannwy (AC822; Charles-Edwards 2013). In 853, King Burgred of Mercia drawing on new West Saxon alliances 'subjected to himself the

Welsh with Aethelwulf's help' (*ASC* 853), such that in 854 Cyngen of Powys, who had once ordered the carving of the Pillar of Eliseg to record his Roman lineage alongside honouring his great grandfather's resistance against the Mercians, and used its Bronze Age barrow as a Powysian assembly site, departed for Rome (Edwards 2009; Petts 2013; Murrieta-Flores and Williams 2017). In 855 when '*pagani*' entered the *Wreocensaete* (*pagani fuerunt in Wreocensetun*) King Burgred raised immediate funds for further campaigning by remitting Bishop Ahlwine of Worcester's feeding of the *Wahlfæreld*' (Welsh host) for 300 shillings at his royal council at Tamworth (S207 855). The same year, he held an assembly at *Oswaldesdun*, 'Oswald's Hill', possibly Bardney but more plausibly the Iron Age hillfort of Old Oswestry; drawing on St Oswald's spiritual protection against Viking *pagani* and Welsh forces, echoing Mercian victory at *Maserfelth/Cogwy* and asserting his overlordship (Stancliffe's identification of *Maserfelth/Cogwy* at Oswestry is agreed by Charles-Edwards 2013: 391–392). He there granted Bishop Alhwine further privileges in return for another counterpayment of two bullion armlets weighing 45 (or 48 mancuses) (S206 855); '*Oswaldestreo*', on the line of Wat's Dyke, at Domesday lay in *Mersete* Hundred, headed at Domesday by Maesbury ('boundary burh') to the south, also on the probable line of Wat's Dyke. Both place-names are believed to derive from OE '(ge)mære', suggest how different scales and affinities with traditions of 'boundary' status could be held or reinforced across the Mercian polity (Parsons 2022: 126).

Overall, ideological and territorial tools acknowledged regional priorities and defensive autonomy of borderlands in exchange for Mercian protection, but limited risks from cross-border entanglements to Mercian kings via unlicensed raiding, warfare, or formal political hegemony, oathtaking or kingly responsibilities extending beyond preferred limits. Mercian borders were therefore carefully established according to the capacity of eighth- and ninth-century Mercian overkings and consequently leveraged much from daily management retained in regional hands.

People, places and border relations

Borderlands as limits of political authority and landholding offered symbolic meeting places. Although mutually convenient assembly-sites for the entourages of kings and bishops, liminality also acknowledged independence, refusal to submit to rights of jurisdiction or hospitality and incomplete trust. Meetings within Mercian borderlands included attempts to deprive the Northumbrian Bishop Wilfrid of Oundle and his other cross-border monasteries at the Synod of Austerfield near the Trent in 702/3 (Capper 2013: 271). After Aethelbald of Mercia's influence over the church was emphasised by the Council of Clofesho in 747, in 748 King Eadberht I of Kent and Archbishop Cuthbert of Canterbury sought the neutrality of London's Thames-side episcopal enclosure for a conference which granted trading privileges (S91 748; Capper forthcoming a). In 906, Edward the Elder negotiated peace with the settled Northern and Eastern armies at Tiddingford for all the English seemingly 'out of necessity' ('*for neode frid*'; *ASC* E 906), although such details were inconsistently reported across versions of the *Chronicle*, Aethelweard and the Mercian Register. The submission of Earl Thurferth and the Northampton army while

Edward camped at the border at Passenham was marked by the theatre of him rebuilding (or refacing) Towcester walls in stone (*ASCA* 917; see also Baker and Brookes 2013: 83, 109 where the refacing is suggested). Border crossings were reinforced by practices that delineated limits of power: whether in the symbolic building and maintenance of border-structures such as Offa's and Wat's Dykes themselves (Tyler 2011), through the payment of tolls or tribute (Capper forthcoming a), or the execution cemetery overlooking the Thames crossing at Staines, Middlesex, which enacted the judicial border between Mercia and Wessex (Hayman *at al.* 2005; Reynolds 2009: 205). Campaigning armies transgressed the border differently than cattle thieves or movement of traders or herds to market.

Typically, throughout their hegemony, Mercian overlords expanded their borders by assimilation and adaptation, approving local strongmen or replacement royal representatives as overseers, with necessary assent, therefore, to a degree of local power and/or autonomy. Penda's kin served as subkings; a nephew, Beorhtwald, served Aethelred near the West Saxon border (Capper 2012); and in 802 Mercia's Hwiccian ealdorman Aethelmund invaded Wessex promptly at King Beorhtric's death (*ASC* 802). In the Anglo-Welsh borderlands, local agents later probably held lands beyond outright English control (Guy 2022: 95). In terms of social responsibility, therefore, territorially defined borderlands increasingly concentrated functions that received outsiders; royal representatives, sureties or witnesses, moneyers and toll-collectors, serving the coastal port, royal estate or burh. The availability of royal reeves varied considerably across the English kingdom before Edgar (957–975) (Molyneaux 2015: 179). Consequently, whereas near borders port-reeves supervised emporia, travellers and probably ferry-points (e.g. South Ferriby, Lincolnshire), further into Mercia a Tamworth charter famously required Bredon (Leicestershire), a monastery under royal sponsorship, to offer hospitality and supervision of diplomats seeking the Mercian royal court (S193, Christmas 840; Capper forthcoming a). Beyond this infrastructure local monitoring and contingencies presumably facilitated cross-border travellers, a rare record being the locally nominated 'landmen' of the *Ordinance* who 'receive him at the bank and bring him back without deceit', '*se hine sceal æt stæðe underfon, and eft þær butan facne gebringan*' (Brady 2017: 2). Formal rulings and physical structures controlling the movement of people or livestock facilitated border permeability and enabled taxation in cash or kind; commercial rights at Aethelred's Hythe, London, were probably emulated at Chester's waterfront (S346 889; Capper forthcoming b). Gates have been proposed in Offa's Dyke (Ray and Bapty 2016: 87) and the Wansdyke (Reynolds and Langlands 2006). Sources rarely illuminate those local public deliberations described in the *Ordinance*, but other preventative local practices, including the marking of ships or group walking or riding of charter bounds, which affirmed jurisdiction and enabled dispute settlement (Kelly 2004: 150; Faith 2019: 84; Capper forthcoming a). As Lightfoot and Martinez (1995: 471) assert, borderlands were more than just 'passive recipients of core innovation'. Visible and layered, the creation and maintenance of borderlands and border structures, such as Offa's Dyke created border traditions, which at different scales benefitted both royal authority and local stability.

Authority and the renegotiation of Mercian borders

Surviving records of border negotiations are scarce, but both *Alfred/Guthrum* and the *Ordinance* first established the authorities under which oral agreement was reached, for *Alfred/Guthrum* probably with minimal Mercian involvement. The following terms negotiated between that authority and immediate interests; in *Ordinance* concerning local cattle theft (Brady 2022: 6). Under Aethelred and Aethelflaed, however, expanded Hiberno-Norse influence revived the 'Irish Sea Zone' as an area of wider political and economic connectivity, risk and opportunity (Griffiths 2001; Gardner 2017; Capper forthcoming b).

New arrivals across the Viking diaspora had to negotiate acceptance of kin identities, legal and social status (Vohra 2016) before the value of borders they negotiated could hold long-term weight. Ingimund's settlement of the Wirral, early in the Hiberno-Norse diaspora from Dublin, illustrates how agreed borders might destabilise wherever the relative strength of participants sufficiently altered. Although certain individuals (traders, diplomats, pilgrims) and things were licensed by tradition and royal supervision to transit borders in small numbers without threatening border-stability, mass movements of people or wealth, whether armies or refugees, might trigger panic or destabilise local power structures. Following Hiberno-Norse expulsion from Dublin 'half dead' in 902 (*AU*902), although Ingimund 'took *Maes Osfeilion*' on Anglesey (*AC*902), after expulsion by Cadell ap Rhodri he reportedly appealed to Aethelflaed and the Mercians 'for lands…for he was tired of war'. This suggests he negotiated lands near Chester from a position of relative weakness (*FA*§429; Capper, forthcoming b). Between the seventh and ninth centuries available economic evidence suggests Meols had languished economically compared with the southeast (Griffiths *et al.* 2007: 401). However, the position was arguably more typical of Viking settlements in Ireland than England, having an estuarine location, if not the high ground overlooking favoured by Irish settlements including Dublin (Wallace 1992: 39). The *Fragmentary Annals of Ireland* are instructive: over time Ingimund's position strengthened, but also modified, as a wider diaspora of 'chieftains of the Norwegian and Danes' (with Irish fosterlings) arrived and destabilised existing settlement. Repositioning himself as a petitioner within their councils, because negotiation of borders between former enemies first required mutual trust, they licensed Ingimund to negotiate more generous territory. Although the Mercians rejected his terms, triggering an attack on Chester (c. 903x7), this Irish image of Hiberno-Norse diaspora better matches the material record, with communities differentiated from each other and Irish allies, capable of weighing individual and group interests to propose multiple options for negotiated settlement. Mercian victory at Chester, without Edward's involvement, secured Mercian borders, the Chester burh and trade access via Chester and Viking Meols to the Irish Sea which stimulated monetisation and taxation through coinage, establishing Aethelflaed's reputation as 'queen' ('*regina*') in Irish and Welsh Annals (*AU* 918.5; *AC* 917; Capper forthcoming b).

New Mercian borders

In both Anglo-Welsh and Anglo-Danish borderlands, treaties recorded compromises, punctuating rather than ending the ebb and flow of negotiation left otherwise to more uncertain resolutions. Despite Mercian victory at Degannwy in 822, in 823 King Ceolwulf I was deposed and the deaths of Ealdormen Muca and Burghelm (824) enabled a new Mercian dynasty under Beornwulf to take power (*AC* 822, *ASC* 823, 824). In 825, while attempting to reassert Mercian overlordship, Beornwulf perhaps moving to pre-empt Egberht crossed the West Saxon border where Ecgberht, decisively defeated the Mercians at *Ellendun*; his son Aethelwulf took control of Kent and Sussex, while the East Angles killed Beornwulf themselves the same year. What linked his successor Ludeca to previous Mercian rulers remains unrecorded before his killing in 827 (*ASC* 825, 827; Keynes 2005). When Mercian hegemony over the southeast collapsed 825–829, that it did so largely into pre-existing territorial arrangements illustrated how Mercian hegemony had only temporarily negotiated control over elite personal loyalties and pre-existing territorial, political and ideological structures (Capper forthcoming a). From 865, however, the Viking Great Army forced borderlands suddenly into being in locations core to Mercian identity over generations. A decade of warfare and economic extraction, political and ideological uncertainty and mass movements of peoples driven by long-term conflict promoted fracture in agreed territories, but rarely drove such pragmatic compromise as in Mercia in 877, 'bordering' peoples and ideologically significant places once central. The division of Mercia in 874/877 denotes a crisis which perhaps deliberately rendered the vulnerable Mercian heartland of Tamworth, Lichfield and scarred Repton liminal. The English Mercia that emerged was itself a newly elongated frontier territory, thin and acknowledging at its several borders treaties with Danish settled populations, Welsh enemies and West Saxon allies that would reconfigure these relationships (*ASC* 874, 877; Capper, forthcoming b). Yet, although the *Chronicle* claimed Ceolwulf II negotiated a treaty in 874, sustained by oaths and hostages, it is highly uncertain his first agreement set up the Mercian division of 877.

877 generated (or perhaps acknowledged) a crisis of Mercian places and identities, but also triggered the emergence of multiple minor Anglo-Danish town-based polities in the east Mercian Danelaw, infilled by later settlers and only loosely sharing identity as 'five boroughs' (later seven; Hall 1989: 151). Plausibly the Mercian political community negotiated a division which fragmented lost territory rather than allow opposition by a single Anglo-Danish Mercian polity, as East Anglia became under Guthrum. The 877 division preceded *Alfred/Guthrum* in recognising Viking leaders as territorial rulers, and both were formative toward stabilising what was otherwise a frontier zone of unlimited Viking expansion. Coherent Anglo-Danish territories opposed by Alfred and Edward thus emerged in response to multiple treaties, possibly reported by *the Laws of King Edward*, ch.5.2, which acknowledge the north and east as separate parties ('*gif hit sy east inne, gif hit sy norð inne*' (*II Edward*, ch.5.2; Attenborough 1922: 120–121). Yet raiding in 893–896 and well-known cash purchases of land, such as the thegn Eadred's purchase of Chalgrave and Tebworth (Bedfordshire), guided by Edward and Aethelred of Mercia

(899x911), suggest that local representatives necessarily continued to hold autonomy and perhaps standing orders around opportunistic across-border maintenance, since Watling Street itself appears in these charter bounds (S396; Davies 1982). Despite its failings, the terms of *Alfred/Guthrum* illustrate features hoped for: security, stability, personal protection and trade (Kershaw 2000), subsequently renewed or modified, before being strategically breached and undermined by joint Mercian and West Saxon campaigns from 909 (*ASC* 909).

The social and human costs of bordering (Rumford 2013; Pelkmans and Umetbaeva 2018) as a violent, high-speed process were of insufficient interest to royal chroniclers, who found unoccupied frontiers conducive to narratives of state formation (for Iberia, see: Jarrett 2018: 203). The 877 Mercian border appears briefly in historical texts, probably too short-lived to establish archaeologically, although, surprisingly perhaps (Lightfoot and Martinez 1995), longer-term distribution of artefacts and placenames suggests it broadly held (Hadley 2009; Kershaw 2013). Notably, cemeteries at the Repton royal monastery and Heathwood, Ingleby which claimed the south shore of the Trent, suggest Viking negotiators prioritised river catchments and Scandinavian placenames described the English settlements there at Ingleby and also Derby, controlling the River Derwent (Richards *et al.* 2004: 25; Jarman *et al.* 2018). *Alfred/Guthrum* affirmed that 'the concept of linear frontier' could be speedily identified and demarcated at a macro scale by ninth-century English and Viking rulers, far earlier than Medieval examples cited otherwise (Berend 1999: 66; Curta 2011). Urgency and over a decade of warfare familiarised all parties with the landscape, making it plausible that the Watling Street Roman Road was a Mercian border chosen, perhaps temporarily, by Ceolwulf II as a pre-existing, long-distance banked and clearly observable structure before being adopted or modified by *Alfred/Guthrum* (contra Davis 1982, 805). Compared with other Mercian borders this blunt instrument required practical and ideological mitigations, plausibly explaining *Alfred/Guthrum*'s preoccupation with the movement of people, traders, cattle, horses and slaves: 'Let every man know his warrantor for purchases of slaves, horses and oxen' (ch.4), while the locally established and later parallel *Ordinance of the Dunsaete*, established compensation for theft of a slave '*man mid punde*' (a man with a pound), but also differentiated prices for a much wider range of horseflesh and other property, allowing for non-bullion equivalents (ch.7).

How far up Watling Street the border went remains contested. In south-east Mercia, a more typical border carefully specified by watercourses of the Thames, Lea and Ouse, marked by lost East Saxon monastic communities including Barking and Waltham, proceeded to Bedford, becoming there the land boundary (*landgemæra*) of scholarly obsession (Kershaw 2000, 46). Edward captured Hertford (912), Buckingham (914) and Bedford (915); therefore as Davis (1982: 103) acknowledged the border had quickly failed, although Watling Street was reused in 1013 (*ASC* C(D,E) 1013). Importantly, comparing layered border management, features surrounding Offa's and Wat's Dykes were established over generations, with Wat's Dyke perhaps the later and more defensive

structure, reinforced at its base in stone (Malim and Hayes 2008: 177). However, the road networks around both Offa's Dyke and Hadrian's Wall merely supplied logistics for built structures (Ray and Bapty 2016). What infrastructure emerged along the Watling Street routeway, a lengthy and perhaps insufficiently impressive or defensible border, is uncertain. Watercourses identified by *Alfred/Guthrum* boasted Mercian royal landmarks, including Bedford, a Mercian royal monastery and former sepulchre of King Offa (Capper forthcoming a, b). Fortunately given Alfred's lawcodes invoked him, Offa probably rested at St Albans, a monument of the new Mercian borderland around London which Alfred left with Aethelred (*ASC* 886); the hoarding of 46 debased Lunette coins of Burgred, Aethelred, Alfred and Archbishop Ceolnoth buried in the St Albans Abbey Orchard affirms the uncertainty during incursions by the Great Army in the mid-to-late 870s, after which a half penny of Alfred's heavier London Monogram type may indicate greater stability (Lyons and Mackay 2008: 69). Bedford and Hertford, once integral to Mercian hegemony over London, became liminal due to strategic fords that intersected existing road networks. Although Iberian towns frequently formed border infrastructure (Jarrett 2018), Brooks (2000) acknowledged strategic incentives to control both sides of river crossings, while underlying economic ties perhaps undermined the long-term sharing of strategic border settlements. The legal status of Anglo-Saxon roads may suppose a limited cleared area and royal mandate either side of Watling Street (*Laws of Aethelberht*: 19-20; *Laws of Ine*: 20; Langlands 2019: 65). Like other Roman roads or saltways, Watling Street was only for short distances a parish or charter boundary (Wolverhampton S1380 996 for 994), but as Hooke observed forms fewer parish boundaries than Fosse Way, while charters overall used rivers more commonly, with few roads forming long-distance boundaries (unlike ridgeways: Hooke 1983 1983: 58). Where evidence survives, Watling Street often traversed known existing territories at micro and macro scale and was not entirely convenient as a land border, however, crucially for tenth-century analysis, after Aethelflaed founded the Warwick burh in 914, Watling Street was taken in part as the Warwickshire border (*ASC* 914; Hooke 1983: 58). Whether depopulation or resource depletion enacted by Aethelred at Chester (*ASC* 893) typified emergent Danelaw borderlands is unclear, as equality of wergeld across borders may suppose a more complex zone of interaction and border monitoring was predicted, which in the end is scarcely illustrated beyond Danelaw imitations of some Alfredian coins, including of Oxford.

Borders established by treaty rather than open frontiers, however briefly, reflected desire to establish trust and stability through formal relations. The 877 division of Mercia, probably connected via Guthrum to *Alfred/Guthrum* and through Aethelred and Mercian ealdormen to the submission of 886, required consensus in delineating a community of interest and royal power. These treaties, negotiated by experienced military leaders in public, were ambitious in defining Alfred's powers, but before West-Saxon witnesses also expressly limited his representation. 877, *Alfred/Guthrum* and Aethelred's Mercian submission to Alfred at London in 886 all agreed to breach multiple previous loyalties and protections that had shaped Wessex and Mercia, most particularly in abandoning

lands or community members to foreign rule or actual slavery. *Alfred/Guthrum* (ch.5) is explicit: 'we all agreed on the day the oaths were sworn, that no slaves nor freemen might go without permission into the army of the Danes, any more than any of theirs to us'. To date the impact on excluded east-Mercian populations remains under-recognised in analysis of this borderland.

Remaking Mercia: the reorientation of Mercia as a borderland

Whether at the Anglo-Welsh borderland or the Mercian-Danish border, pre-existing resource dependencies – on salt, metal ore (silver, gold, copper, lead), but also wine, incense and religious paraphernalia – encouraged trade and border-crossing unless alternate networks were established to meet local needs. To access emerging Viking trade via Meols, Aethelflaedan burh gates, including the modified Roman double gates at Chester (Mason 2005: 7), set up the potential for gradations of border community, differentiating the trading shore of the wharf (compare Worcester, S346), from Chester's fortified administrative centre and market, its new mint and multiple churches, where spiritual communities of different purposes sheltered in close proximity (Mason 2007; Capper forthcoming b). Around St John's, Chester, a recently excavated post-Roman ditch possibly formed a further boundary, whether for defence or demarcating a religious precinct. Possibly, as at Worcester the burh structure was segmented, or as later at Canterbury, communities belonging to and outside the burh were differentiated (Holt 2010: 60, 71) with bordering reinforced by access to different trading and communal opportunities later emphasised in different churches. Despite previous conflict, because landed wealth and survival relied on farming, a 'moral economy' still enabled agriculture. Some elements (loan of plough teams, compensation, witness of sale) were legislated early (Faith 2019: 79-86), but new land borders required local affordances, whether for access to water, salt and grazing, or exchange of breeding stock (a Welsh ram appears in a ninth-century Welsh charter of Llandeilo Fawr; Jenkins and Morfydd 1983, 50). Finds and a structure at Breinton may indicate the Wye near Hereford remained a meaningful border, potentially fortified, into the Late Saxon period (Ray and Delaney 2021), while the *Ordinance* supervised the Wye, probably between Hereford and Monmouth against cattle theft (Brady 2017: 6).

Borders were permeable for some people moving by tradition or under royal protection, namely traders, pilgrims, exiles and particularly hostages or diplomatic brides. However, cross-border marriages risked group cohesion; sociological studies suggest this is overcome via strategies of 'marginalisation', 'encapsulation' (usually of the bride within the husband's social networks) and/or 'reconfiguration' of modes of connectedness (from ethnicity to shared religious beliefs) (Pelkmans and Umetbaeva 2018: 549–550), unsurprisingly therefore, brides who transited borders were rarely expected to return without damaging social fabric. Elite marriages often confirmed borders alliances, but differently according to tradition and circumstance. Seventh-century queens commonly performed such roles while retaining their own thegns. Keynes (2001) and Stafford (2005) contrast the marriage of Alfred's sister Queen Aethelswith into Mercia, where her activity at court mediated the Mercian/West Saxon borderlands, with King

Alfred's marriage to Ealhswith, Mercian daughter of Aethelred of the Gaini, who was denied queenly status in Wessex. Despite apparent mutual respect neither Aethelflaed (d.918), her husband Ealdorman Aethelred (d.911), nor any identifiably Mercian nobles attested her West Saxon brother Edward's coronation grants founding the New Minster, Winchester, whereas Mercian bishops and royal priests subscribed (S1443; S365; S366; Keynes 2001: 51). Indeed, at Shrewsbury in 901 Aethelred and Aethelflaed exchanged lands with the ancient Mercian nunnery at Wenlock, Shropshire through a charter that invoked the royal 'wisdom of Solomon' '*sapiens salomon*', but no other royal authority than God, their most high king '*excelsi regis*' and 'consent' from the Wenlock community and the Mercians (S221 901; Sawyer 1989: 2) Alfred's will granted his wife Ealhswith three West-Saxon estates in her widowhood, but all reverted to the crown before Domesday (Eddington; Lambourn, near Ashdown, and Wantage; Keynes and Lapidge 1983: 303). To Aethelflaed, Alfred left only Wellow, a single estate in the West Saxon heartland, identifying her place with her husband beyond traditional West Saxon borders, limiting both her political influence or liability (S1507; Keynes and Lapidge 1983: 175). In 903, when Edward met Aethelred and Aethelflaed, with their daughter Aelfwynn, in Berkshire to resolve Ealhswith's 'family business' (Stafford 2005 46), West Saxon bishops seemingly absented themselves from what they likely considered external matters (Keynes 2001: 53–54).

On becoming sole ruler 911–918 Aethelflaed, Lady of the Mercians, governed independently over an extended Mercian borderland, neither the kingdom which had faced the *micel here* in 865 or the broken polity of 886, if less fully than Stafford proposed 'ruler in her own right' (Stafford 2005: 35). Aethelflaed's burghal system (910–918), which in 915 completed three burh defences in one season, cannot easily be isolated from other Mercian fortifications and strategies (contra Blake and Sargent 2018), but extended topographical knowledge, resource management and statecraft drawn from accumulated Mercian experience facing a wide frontier of Viking expansion (Capper, forthcoming b). To alleviate the 'almost prohibitive' expense and resource needs of Alfred's burh building (Baker and Brookes 2013: 370–371) while controlling navigable rivers, routeways and fords (Abels 1988: 69), with her husband Aethelred, Aethelflaed had already re-fortified and modified the walls, markets and ecclesiastical rights of episcopal Worcester, allocating fines for damage to the burh wall '*burhwealles sceapinge*' (S223 884x99; S1280; Holt 2010). Gloucester's refortification protected sites upstream (S1441 896). At Shrewsbury access into the river loop was barred by a natural prominence excavated by Nigel Baker with this author (Baker 2020). The river thus protected ninth-century royal and episcopal churches at St Mary and St Chad which suggests a pre-existing royal centre (S221 901). It was later further dignified at St Chad by an internal tenth-century sculptural string course (Mardol 1–3) and St Mary's likely adoption by King Edgar (Bryant *et al.* 2010: 309, 311–312). Chester and its waterfront was fortified (*ASC* 907) and probably Hereford was also refortified (*ASC* 914; Capper forthcoming b). Coin from moneyers later serving Shrewsbury and Chester in the Cuerdale Hoard (c. 905) may indicate limited minting before or during re-fortification of Chester and Shrewsbury (*ASC* 907; Lyon 2001: 74).

Working at pace on multiple fronts, Aethelflaed frequently used the Mercian royal tradition of 'common burdens' for military works (Abels 1988: 71; Brooks 2000) due from lay and ecclesiastical landholders to refurbish likely existing estates (Warwick, named for its weir, Chirbury its church), and archaeologically visible centres such as Stafford (*staep* 'landing place') known for its ninth-century kilns (Carver 2010). Other strongholds acknowledged named individuals outside Mercian royal naming traditions *Bremesbyrig* (unidentified) and *Eadesbyrig* (personal name elements '*Breme*' and '*Ead*'; Blake and Sergeant 2018), alongside royal Tamworth. Her strategies more plausibly illustrate the speed and urgency Christie questioned in analysing construction of a West Saxon burh at Buckingham (*ASC* 914): 'It is hard to believe…[in] strongholds built within four weeks, although it is feasible that sites were laid out' (Christie 2016: 63). In particular, the overall scheme addressed known control points on the threatened Irish Sea river-systems of the Severn, Mersey and Dee already noted in the campaigns of 893–896, the Wirral territory granted to Ingimund and roads Viking armies traversed during the Tettenhall campaign of 910, addressed by refortification at Chester and Bridgnorth (*ASC* 892–896; Griffiths 2001). Defensive works in existing borderlands, by necessity layered works of mixed sizes and more 'emergency' character (Baker and Brookes 2013, 378), similar to Alfred's sites of the 880s. These were enacted to refortify the hillfort of Eddisbury (oven base dated 860 +-70 (cal. AD 745–980); Garner 2015: 198), then Chirbury, *Weardbyrig* and Runcorn (*Mercian Register* 914, 915). Alongside these, preparation of larger burh sites at Tamworth, Stafford and Warwick (*Mercian Register* 913, 914) ensured the administrative forward platforms of resource management Baker and Brookes described to enable Mercian campaigning parallel to Edward at the Danelaw border by 916. Yet more pragmatic activities also reached beyond Mercian borders: probably in 914 Aethelflaed exchanged Stanton-by-Newhall, Derbyshire with her thegn Alchelm, for livestock and money (60 pigs and 300 *solidi*) by charter, noting his obedience in purchasing it from Danes beyond her established borders (S224; Sawyer 1989, 1–2, no. 1).

Contesting authority over Mercia's southern border

Opportunism by its allies, however also shaped the new Mercian borders. Edward succeeded '*feng to*' (Winchester *Chronicle A*) his father Alfred in Wessex, overcoming a dangerous rebellion by his cousin Aethelwold, who was acknowledged king by Viking York (Stafford 2008: 112). Traditionally, Aethelwold's bid for power from West Saxon perspectives was evaluated first as an internal dynastic 'coup' and then as external invasion (Lavelle 2010: 54): we might compare the autonomy won by Carolingian prince Karlomann in East Frankia who usurped 'a considerable part' of his father's realm through alliance with Rostislav, king of the Wends before reconciliation with his father Louis the German (*Annals of St Bertin*, 861, 862). Aethelwold's campaign, however broke peace with settled Viking armies bringing substantial damage upon Mercian territory before they crossed the Thames (*ASC* 900–902; Capper, forthcoming b). Although Keynes has emphasised Edward's authority given that Aethelred and Aethelflaed lacked

independent coinage, yet his invitation to 'break free' of analysing Mercia and Wessex as opposed interests avoids exploring other tensions in Edward's authority as 'king of the Anglo-Saxons' which Aethelwold recognised and exploited (Keynes 2001: 57).

At Aethelred's death in 911 the Winchester *Chronicle A* asserted that Edward 'succeeded to' (*'feng to'*) Mercian borderlands around London and Oxford (*ASC* A911), conveniently recasting the greatest loss of Mercian territory since 877, which Edward prevented his widowed sister from inheriting. Alfred negotiated the 886 Mercian submission first as king of Wessex. Without hindsight, Mercia's Thames borders were strategically significant and perhaps as vulnerable as Mercian borders with Welsh or Scandinavian kings. Nor should Aethelred be considered Alfred's 'beneficiary', as Pratt (2007: 306) has proposed, in receiving Mercian fines at Worcester, he negotiated with Bishop Waerferth using status above that of ealdormen (Capper 2013). Yet the price of Alfred's early support in refurbishing Gloucester is implied from a rare Gloucester coin of reformed Alfredian weight from Cuerdale ('ÆT GLEAWA'; BM1838,0710.28), and a more numerous issue from Oxford (Naismith 2017: 171). Bishop Ealhheard of Dorchester-on-Thames, who replaced Mercia's Leicester bishopric, was so close to Alfred he died ranked among 'the king's best thegns' (*ASC* A 896), his successor, Oscytel, was sufficiently loyal he was entrusted with 400 pounds by King Eadred to redeem all Mercian churches (S1515 951x955). At Abingdon, formerly a strategic and influential Mercian royal house on the Thames border, the Abingdon Chronicler criticised Alfred pointedly: 'like Judas … he violently seized the vill in which the abbey was sited' leaving it reportedly a royal vill until its tenth-century refoundation (S552a, Blair 2006, 325).

Within his own borderland of Wiltshire also, Alfred's overlordship of Aethelred's Mercians was paralleled by fortification of Malmesbury and, Mercians aided among those who judged Ealdorman Wulfhere of Wiltshire for desertion (S362; *EHD*, no. 101). Alfred's four-life lease of Malmesbury land at Chelworth near Crudwell to his minster Dudig (S356 871x899; Keynes 1994:.1139), would later be purchased back and exchanged with Malmesbury by Wulfhere's replacement Ealdorman Ordlaf (S1205, 901); autonomy perhaps further reduced as the substantial royal burh at Cricklade enhanced defence of the Thames (Baker and Brookes 2013). More immediately, in 874 Burgred seemingly granted lands to Worcester at Bath, 'that famous town' (*'illo famoso urbe'*; S210), whose Mercian/Hwiccian royal monastery, once appropriated by King Offa (S1257 781), was symbolic of Hwiccian service to Mercian interests (Capper forthcoming a). Alfred had probably asserted West Saxon control over Bath since Edward's rare early coins titled *'rex Saxonum'* and minted at 'BAÐ' (Bath) appear in the Cuerdale hoard c.905 (Naismith 2017: 171). Whittock (2012: 12) proposed the coinage celebrated Bath's refortification. The Burghal Hidage included Bath in its West Saxon ambit although archaeological evidence thus far indicates only timber works there (Baker and Brookes 2013: 83). Sims-Williams (1990: 23) long ago proposed that the *Chronicle* describing the 577 Battle of Dyrham and West Saxon capture of Bath, Gloucester and Cirencester was 'inspired' by Alfred's ambitions to project claims to West Saxon control over strongpoints in the Mercian borderland, including Bath, but also Cirencester (Asser's *Caerceri*), which

controlled the road connecting the Mercian burh, royal estate and the couple's new mausoleum at St Oswald's, Gloucester with Winchester.

Cirencester, identified with Penda's victory of 628, like Bath arguably signified Mercian power and Mercian lordship over the Hwicce. Guthrum's winter camp at Cirencester in 878 indicated he had left Alfred's kingdom ('*suo regno exituros*'), placing Cirencester then beyond West Saxon territory (*ASC* 628, 878). The surviving amphitheatre offered Guthrum a potential site for defence or tribute exaction in Mercia, possibly paralleled in 893 by Viking occupation of Chester amphitheatre (McWirr *et al.* 1982: 27; Wilmott and Garner 2018: 435). However, the ninth-century Cirencester royal minster or church and enclosure at St John's, Chester, as parallels for Repton, plausibly offer significant stone structures of comparable strategic potential. By the reign of Athelstan a charter extract reported a royal meeting at the Roman city in 935: *'in civitate a Romanis olim constructa quæ Cirnecester dicitur tota optimatum generalitate sub ulnis regiæ dapsilitatis ovanti prescripta est'*. This fragment makes no claims that Athelstan's rare stay rebuilt the city or its pre-existing Mercian church. However, Cirencester was heavily critiqued by the Welsh poem *Armes Prydein* as a 'haven of tax collectors', suggesting this royal site too was reconstructed by Aethelred and Aethelflaed, if with Edward's agreement (S1792 935; Kelly 2004: no.11; McWirr *et al.* 1982).

Other pressures on Mercian border resources as Alfred and Edward secured power on the Severn estuary are hinted at by Aethelred's return of Old Sodbury, Gloucester to Worcester (S1446 c. 903); Athelstan's burial at the borderland monastery of Malmesbury, Edmund's charter leasing Wotton-under-Edge, on the western edge of the Cotswolds, containing an ancient ridgeway down from Cotswold grazing onto the Bristol plain (S467 940); and expanded royal presence in Somerset described by the estates granted Edward by Alfred's will (Keynes and Lapidge 1983: 317–318). Elsewhere in Mercian territory, as Aethelred's death approached and joint campaigning from 909 renewed attention to opportunities and threats from Mercia's Danelaw borderland, its potential rewards perhaps led other southern Mercian allies to commend themselves personally with Edward as Aethelred, Ealhswith and Aethelwulf of the Gaini and Aethelred himself had commended themselves to Alfred.

Breaking down borders

Early Mercian borderlands each held particular regional characteristics. Over time relatively shallow, stabilised, locally and ideologically managed riverine frontiers developed with seventh-century peer polities; Northumbria at the Humber (*ASC* 829) and with Wessex on the Thames (*ASC* 802). The apparent contrast between the aggressive militarised plundering of western Britain from the mid-seventh century prior to construction of Offa's Dyke and the subordination leveraged from East Anglian, Kentish and South Saxon kingdoms to absorb those territories wholesale by c. 800 is somewhat over-estimated. Written and archaeological sources reveal Welsh borderscapes continued to be zones of political interaction, negotiated and fought over, generating long-term social and political border traditions formed around mutually comprehensible nodes of influence, control

points, and routeways connecting a familiar landscape. Careful Mercian negotiation of the Iron Age hillforts and natural high-places by Offa's Dyke and of defensive locales by Wat's Dyke, show how the building or adaptation of strategic border structures could reinforce or negate long-lived strategic locales (Charles Edwards 2013; Ray and Bapty 2016: 75). For example, the Wye continued as a managed zone of interaction (Ray and Delaney 2018).

Mercian borderlands were broadly stable and managed, tested by occasional campaigning from both sides through strategies that reinforced broader political activity and local borderwork. Such occasional probing of borders was incomparable with sustained depredations Mercia suffered under the Great Army, which divided Mercia in 877, forcing both Alfred's swiftly militarised defended landscape illustrated in the Burghal Hidage, and Aethelflaed's layered system broadly reflecting Baker and Brookes 'defence in depth' (2013, 383). The 'frontier' model of eighth and ninth century borders however, also underplays how any one border, most visibly that of Offa's and Wat's Dykes, but also that with Kent might preoccupy networks of power in peripatetic and militarised overkingship. The authority and spoils to be derived by Mercian rulers from successful Welsh border activities connected politically with the mobilization costs of resources and rewards to armed followings for campaigning at other Mercian borders, while kings dispensed both prizes and punishment, either at the periphery with the army or Councils of the Mercian political community (Capper forthcoming a).

Strategic historic borders were acknowledged when opportune, long after the English passed under the same rulership. Ealdorman Aethelweard, royal historian and notorious commentator on Danish matters, acknowledged Aethelred of Mercia as a king in 893 and Chester the British border, '*Brittanum fines*' likewise noting the historic Mercian border with Wessex on the Avon in 910 (Campbell 1962: xv, 49, 52). In 1013, Swein and Cnut acknowledged Watling Street as a border, beyond it dealing 'the greatest damage that any army could do' (*ASC* 1013). However, retrospective authors often remade past borders in contemporary interest; Aethelweard numbered Alfred's accession in years since West Saxon victory over Mercia in 825 at '*Ellendune*', but described conflict between them as 'civil war' ('*civilia bella*'; Campbell 1962: 40); thereby promoting contemporary unity and obscuring historically separate motives and identities. Wulfstan, seeking precedent, forged legal codes by Edward and Guthrum (Whitelock 1941). Just as Welsh speaking communities long lived on both sides of Offa's Dyke and Wat's Dyke, likewise among the so-called 'Five Boroughs' early English names frequently mark major Scandinavian settlements, Derby excepted (Parsons 2022; Kershaw 2013). Despite its place-names and Mercian recognition, however, Chester's Scandinavian population and its limited hinterland later lacked the recognition and freedoms of more substantial Danelaw counterparts (Lewis and Thacker 2003).

Conclusion

Unsurprisingly given modern politics, borders and borderlands, particularly between ethnicities, have offered fertile ground for scholarship. Acknowledging the diversity of borderlands and modes of partition, but also identification of common features on either

side of boundaries rendered resource-filled historic borderlands comprehensible, operable and navigable at local and macro scales. Mercian borderlands were reinforced within the landscape by warfare and defence, building, taxation and legal traditions, but also enacted by a patchwork of local activities and material traces leaving 'gaps' felt by communities in their daily decision-making, legal and spiritual lives. Borders constructed relations with or without symmetry, but smaller polities felt resource appropriation and integration acutely. Some, particularly the East Saxons and Hwicce, chose stability under Mercian hegemony. Others continued to resist and re-negotiate. Unthinking colonial narratives of English-dominated negotiation are fruitfully overturned (Brady 2017: 13). However, the recognition of individual, local and regional strategies in negotiating 'borderwork' offers deeper nuances easily missed by the limitations of our sources across disciplines but also modern administrative or disciplinary boundaries. Furthermore, while at a macro-scale, English unification was only possible through internal recognition of differences, with only limited provisions applied universally across ethnic boundaries: 'secular rights should be in force among the Danes according to as good laws as they can best decide' (IV Edgar, ch.2.1, 2.2 and 12, and VI Aethelred, ch.37; Hadley 2009, 376), identification and freedoms among smaller communities were more vulnerable.

Raiding, campaigning and negotiation were features of border maintenance throughout Mercian hegemony and beyond. However, activities negotiating or reinforcing borders and management of cross-border activity frequently reflected local interests. Given medieval modes of communication rulers such as Offa and Aethelflaed evidently delegated details of border maintenance to leaders such as Aethelmund of the Hwicce or the discretion of local lawmen of the *Dunsaete*. Given their distance from centres of West Saxon royal power that dominated royal itineraries after Athelstan, it is unsurprising tenth-century lords held major border responsibilities, such as Aethelweard, who sought to rewrite histories in ways which obscured historic borders incompatible with perceptions of English unity. Likewise, Aethelred (c. 883–911) or Aelfhere of Mercia (956–983) and others in the borderlands retained substantial autonomy in determining how raiding and other maintenance of the Anglo-Welsh borderlands could serve their own interests (Charles Edwards 2013; Molyneaux 2015). If the king's aims were satisfied: raiding and other border maintenance offered a convenient, low-cost reward in keeping with long-held Mercian traditions of raiding beyond the formal border alongside plausible deniability of its excesses. Nonetheless, much of the power and responsibility to negotiate borderlands clearly remained in local hands.

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Border Culture and Picturing the Dyke

Dan Llywelyn Hall,
Gillian Clarke, Gladys Mary Coles, Menna Elfyn,
Oliver Lomax and Robert Minhinnick

with commentaries by Diana Baur, John G. Swogger and Howard Williams

Dan Llywleyn Hall is a painter who spent three years walking and making paintings inspired by Offa's Dyke. Born in Cardiff 1980, Dan now lives near the border in Llanfyllin where his studio is based. He has recently taken on the role of guest Editor of Borderlands *– a revised Newsletter–cum–Journal that is published twice a year in behalf of the Offa's Dyke Association. With a new introduction, the key components of the 2021* Walking with Offa *project are reproduced here: nineteenth paintings and English-language versions of five of the original twelve poems. These are joined by three perspectives on the project by an artist (Baur), archaeological illustrator (Swogger) and archaeologist (Williams).*

Keywords: art, borderlands, painting, landscape, Offa, poetry

The first question that came to mind was which direction? South to north or vice versa...

I was exploring 177 miles of a path that chases the 1200 year-old earthwork, set out by King Offa. Was it a border, elaborate hedge or a demonstration of bravura?

This project has been on simmer for many years, as I traversed it all my life, getting sightings here and there. But before brushes could be summoned, it started as a path that had to be walked.

I am a painter and needed subject-matter so the route had to be faithfully traced with my own boots in order to unearth the motifs. I acquired every book I could find about Offa's Dyke, and familiarised myself with more questions than answers. As a 'monument' the dyke itself is largely unimpressive and has little glamour to behold. Not a single coin and virtually zero archaeological findings gifted successive generations with a human story. I was to discover that its real life and heartbeat existed in the peripheries of this earthen-serpent.

There is an assumption that artists gather all of their succour for a painting, from the very sights before one's eyes, but for me I need those points of human contact to give any landscape a spirit and its very essence. In some of the many sights that called for my attention along the way I needed to seek those encounters and ghosts lurking; the storytellers along the way have furnished me with images and the impulse to walk and seek.

It became apparent the images were not obvious to define and I set about immersing myself in the dyke culture or more broadly, border culture. Considering Offa's Dyke is the longest

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ancient monument in western Europe; there is surprisingly scant writing about it. Given the need for words, I invited poets I respect and had acquainted and invited their poetic responses; what emerged gave me a sense of a ready-formed culture and other highly personal insights that sated my need for 'flesh on the bone'. I needed to know how other creative beings interpret this gargantuan subject and where they might start to tell their own story.

My itinerary would end up being erratic and I would target manageable daily sections and make drawings in reconnaissance missions. Anything warranting my attention would then be examined and explored in sketchbooks and I'd seek out literary references down the ages.

I walked the route with different company; friends and some of the poets in this book and the shared experiences are etched into my memories of each step fading. Our physical lives ebb but I like to think the paintings in this series now embody some of that residual memory. I had originally envisaged walking with all the poets featured in this book but alas, that was dashed by the age of Covid and I only managed to share the vision with a few of these collaborators. Nonetheless, as many walkers have often cited, the great Alfred Wainwright astutely observed that 'walking can promote the true sense of solitude'.

My time in the studio involved decisions as to the grand narrative. Every painting must stand alone and have its own autonomy in the world so I decided to isolate the specific sights and amalgams where needed to call characters out from behind the trees and in the ditches. It amazed me how incredibly varied the landscape along the dyke and as a friend mentioned, if you walk the entire distance, you've climbed the equivalent height of Everest, so it's fair to say there are a few undulations.

As difficult as it is to hold off, I do not want to use words to throw light on specific places. Firstly, there are too many and secondly my first language is paint.

From the outset, I felt a collection of paintings and poetry was needed to help to engage this elusive monument with a wider audience and present emotive and human stories. A line that struck a chord with me by the late founder of the Offa's Dyke Association Frank Noble said of the dyke: 'it remains a dead monument in an empty landscape'. Yet, he devoted a good part of his life to unravelling its mystery; this sentiment provoked in me a need to seek its spirit.

This collection of poetry and paintings, published in 2021 and now re-assembled here is now part of Offa's Dyke culture and hope will endure along with human encounters, paths crossed and feelings felt carried along the dyke.

The aesthetics of Offa's Dyke can be gleamed from the anecdotal and personal or rather first hand accounts of encounters. There is no one Offa's Dyke or indeed one interpretation. It in though – in my mind – the physical incarnation of Border Culture.

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Offa's Dyke

From here the earth is a green map
spread out under the sky,
the dyke a fold between two lands,
two histories, two tongues, each page,
recto and verso, scribed in sunlight.

East, west, *dwyrain, gorllewin* -
its word-music sings on the wind
between Mercia and Cymru,
between field and mountain,
maes a mynydd.

To the east lie fields for grazing cattle,
or sown with gold, grain rippling
at the wind's hand, and dawn to dusk
a summer blackbird holds his place
with song: this land is mine, mine.

West are the high lands, the *hafod* and *hendre*,
the shepherd's house in unfenced hills
where sheep know their place, the homing, the heft,
that secret sense of belonging, *cynefin*,
passed down from ewe to lamb.

And now, over this ancient earthwork,
raised from north to south to divide us,
a red kite flexes the fork of its tail
and wings, free in the boundless sky,
and the dyke's no more than a line in the mind.

Gillian Clarke

On Offa's Dyke

Once a concept, now returned to concept
except where the mounded soil
hints of activity, toil,
scoopings, bendings, craft
of earthwork unknit by wind-work.

Once a long snake, sinuous over the land,
over hill heights, above cwms:
now its disintegrated skin
is ghosted in the ground,
buried in its own earth
yet visible here and there
like the life of Offa, Mercian King.
This, in itself, evidence of him, hegemony's power, fear --
the tangible remains.

Their truths the walls of history hold:
Hadrian's, Jerusalem's, Berlin's --
humanity walled in, walled out,
a wall for weeping on, a wall for execution;
and all our inner barriers, divisions
numerous as the species of wild growth
embedded in this dyke --
taken by the only natural army.

Gladys Mary Coles

Two Offa's Dykes

Living as I do, what can I know of borders?
Shutting gates is the only rule
on our zigzag pathways...

But there's a wilderness in the sky,
ditches in the clouds...
and it's the writers who discover the roads
leading away from me.

Cynddylan and Hergest and Heledd
reveal that poetry belongs
in my ditch too, words hinting

at wisdom and tragedy,
their legendary breath
speaking to both sides of my mind.

So here I am, a pilgrim of sorts,
one foot in grey clay, one in red,
crossing from this country to the other
but the two of them failed states.

I might turn away from both
but I know that grief grows like gorse
and will always surround us.

It's the same rain we suffer...
All of this weather
together

Menna Elfyn
Translation by Robert Minhinnick

Wealas

Slaves?
Yes. Yet slavers too.

But strangers, their people
always foreign to us.

Aboriginal that nation
of dark deceivers.

Remember Hadrian
and those he tried to keep out?

Yet if you listen carefully
despite their alphabet

of stone and thistle
wielded like an unwhetted axe

you'll hear Rome
distilled through their dialects.

But no loam in their language
as in ours...

So, by my decree
keep them behind this ditch

where they'll never get rich.
Let them remain

the wrong side of the dyke
in their green desert...

Such people are thieves,
a nation of crims

who will never understand
our Mercian hymns.

I'm sick to the teeth
of those blue remembered hills,

we'll hit them for six
with our dark satanic mills.

But stray over here?
We'll dock their ears

because one side or the other
is theirs to choose

I'll make them an offa
they can't refuse...

Robert Minhinnick

Offa's Dyke

And leaving Mercia, with the sun on my back
I take this ancient path
a scar cut from sea to sea
into 9th Century ideology

this sleeping giant's weary spine
threads the border of time
it ebbs and flows in discourse, folklore
shifting in ways only a river would know

and taking a life of its own
gives up the ghost, for those
splitting hairs, splitting the difference
of the past, minding the Anglo-Saxon gaps

I'm crossing you in style
the low horizon wide as my smile
neither here nor there
with the wind in my sails

keeping one foot in England
one foot in Wales.

Oliver James Lomax

Above: *The Radnor Professional*

Below: *Defiance at the Pulpit*

Above: *The Borrow & Thurlow Encounter*

Below: *Tref-y-clawdd*

Above: *Gorffwys Tywysogion*

Below: *The Grand Master of Buttington*

Above: *Course of the Ancients*

Below: *Elation at World's End*

Above: *Audience at Arthur's Cave*

Below: *Red Bluff*

Above: *Hergest Puzzle*

Below: *Oak at the Gate of the Dead*

Above: *Exiled Visitor*

Below: *Rebels' Muster at the Skirrid*

Above: *Passion at the Escapment*

Below: *Llantony Spirit Portal*

Above: *Synergy at Ceri Pole*

Below: *Twmpa*

Above: *Quarry of Caractacus*

Reflections on *Walking with Offa*

Diana Baur

Artists have always borrowed, restructured and invented. Both currently and historically artists use(d) a wide range of materials, both orthodox and, possibly more interestingly, unorthodox, sometimes simply to experiment, sometimes because of cost. Artists play with materials and experiment with colour combinations and mixtures until what is "coming through to them", is being expressed in a way that is pleasing.

In my view the creatively driven are the instrument through which ideas and inspirations flow. They find themselves attempting to express those inspirations. They do not usually set out to find subject matter in order to paint, as Dan claims he did before walking the Offa's Dyke Path.

However, it is obvious from Dan's eloquently stated written account that the Borderlands inspire him greatly. He walked them during a time when creativity for many was stifled by the negativity of Covid years, and his mark making and palette choices reflect this time. A few of his paintings escape this negative cloud to some extent with inspiration and a sense of light coming through to the viewer. In particular in the following three paintings.

Red Bluff

The colours referencing the importance of red in ancient tribes, linked as it is with survival, the hunt, following the red dots of blood on the ground from a wounded animal, the red handprints in caves, the mark making and immediacy of the work.

Passion at the Escarpment

Again, like Red Bluff, the rich redness of the earth works very well in this painting creating almost a tapestry like effect, almost drawing a rich warm blanket over us all.

Quarry of Caractacus

Regardless of the colour range chosen, the depth and sense of travelling back is well expressed in this painting with the leafless tree in the foreground.

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The Past in the Time of Covid: The Art of Dan Llywelyn Hall

John G. Swogger

Art often reveals more than it shows – often tells us more about its creator than its subject or inspiration. Some would argue that this is intrinsic to 'art' – to reveal a personal vision, rather than to mechanically reproduce a view. I have argued in the past few years that art gives archaeologists (and archaeology, more generally) a unique lens through which to understand not just how those outside the discipline 'view' archaeology and archaeological sites and monuments, but how those outside the discipline 'feel' about archaeology and the places, objects and past peoples it studies. I have also argued that, in considering the shortcomings of much of archaeological public outreach, we should start to understand that most people outside of archaeology do not relate to sites and monuments in terms of information and intellectual understanding, but in terms of personal meaning and individual, emotional perspectives.

As a consequence, archaeology often fails to grasp the 'point' of art about, or inspired by, archaeology and heritage. What is such art for (archaeologists ask)? But archaeologists ask that question expecting an archaeological answer, and are often disappointed when the art fails to provide them with archaeological insight. It is judging apples by the standards of oranges. If we, instead, ask the question and look for an artistic answer, then we might potentially be heading in a more interesting, more productive and – ultimately for archaeology – more meaningful direction.

(In attempting such an interrogation with the corpus of art about Old Oswestry hillfort, I not-altogether-jokingly manifested my inner Waldemar Januszczak. A facetious conceit, to be sure, but it proved effective in shifting the way I spoke about what I was looking at – effective in provoking an artistic response to the art first, and leaving the search for an archaeological message until later. Perhaps, then, one should imagine the following paragraphs spoken by him…)

Dan Llywelyn Hall is a man on a journey. A journey, in his own words, of paths crossed and feelings felt, an erratic itinerary of undulations in an attempt to unravel a mystery, unearth motifs and seek out a spirit. Where is Dan going? And why?

It might surprise an archaeologist who specialises in the study of early medieval linear earthworks to learn that Dan is journeying along the length of Offa's Dyke, a monument which has been studied in earnest for more than a century, and about which hundreds of academic papers and meticulously-researched theses, histories, guides, interpretation panels and leaflets have been written.

No archaeologist would describe Offa's Dyke as an elusive mystery, full of lurking ghosts or spirits needing to be sought; no archaeologist would agree with Dan, quoting Frank Noble, the founder of the Offa's Dyke Association, that the dyke is 'a dead monument in an empty landscape'. So why, after acquiring every book on Offa's Dyke and tracing the route with his own boots, does the monument resonate with Dan as 'largely unimpressive', with 'little glamour'? Why does the archaeology in those books leave him with 'more questions than answers'?

There doesn't seem to be much in what Dan says about the monument to justify his decision to spend three years walking and making paintings 'inspired by Offa's Dyke'? Clearly, it wasn't the archaeology of Offa's Dyke that caught Dan's artistic imagination. So, what was it?

These are odd paintings. Thick impasto on cheap canvas panels and slices of chipboard. The representations are universally flat, poorly-rendered and murky – despite the use of vibrant colours, straight from the tube. They seem disconnected from the places in the titles: is that egg-yellow smear really Knighton? Is that bleak plateau actually Chirk? Other titles appear to have nothing to do with the dyke: Temptation from the Pulpit? Passion at the Escarpment? There's something unsettling, dream-like about some of the images: a lurid abbey rises from a morbid green funk, a dead-eyed donkey stares from a monochrome gloom, a view of Dinas Brân(?) as if seen through a First World War battlefield. Weird figures lurk in the landscapes: an electric-green spirit in Arthur's Cave, a circle of mute earth-coloured ghosts at Valle Crucis, the faceless shroud of the Exiled Visitor. What lurks beyond the Llantony Spirit Portal? Are there skulls and half-hidden words in the Rebels Muster at the Skirrid? What on earth is going on in Borrows (sic?) and Dashing Don Carlos at Chirk?

These are not easy paintings to like; these are not easy paintings to relate to. In fact, if there is a mystery to unravel here, then it is this: how can a painter spend three years travelling up and down Offa's Dyke and produce these as 'the physical incarnation of Border Culture'?

Perhaps we should be prompted by Dan's own mission statement, and see if we can't unearth a series of motifs and seek out the spirit of this erratic itinerary of undulating paint and chipboard.

If there is a common thread to all of these paintings, then it seems to be that of distance and disconnection. These paintings do not show lived-in landscapes; these are not habited places. The structures in them float without scale – cyclopean or microscopic; it is impossible to tell. Where there are inhabitants, they are formless, shapeless and featureless - even dashing Don Carlos. Dan cheerfully states that his paintings are telling 'emotive and human stories', but this is whistling in the dark. Instead, they confirm something bleaker: 'the true sense of solitude' that the painter clearly shares with Alfred

Wainwright. There is a hint of discordance and upset that is more than just a little disturbing. What 'residual memory' do these paintings really embody?

Dan claims to have turned away from the dyke itself to 'the peripheries of this earthen-serpent' in order to search for the monument's 'real life and heartbeat'. It is notable that the dyke itself does not feature in any one of the twenty paintings in this collection. The landscape beyond the dyke is a wasteland devoid of human presence, a place of lonely isolation, blurred as if an only half-remembered dream, populated by faceless ghosts. There is no life here, no heartbeat.

This is not a collection of paintings about the well-known, well-understood and well-defined Offa's Dyke – this is a collection of paintings, as Dan points out, about his journey. He may have walked along Offa's Dyke, he may have rambled every yard of its 177-mile path – but Dan crucially did so in the past three years. In the pandemic. In the time of Covid. Dan walked Offa's Dyke, certainly, but his paintings record the time, not the place. His canvases have captured what his explanatory essay only hinted at: that his plan to explore the monument, to record and capture the 'flesh on the bone' of the dyke was 'dashed by the age of Covid'. His paintings show us that time, palimpsest-ed onto the place. Whatever Dan wanted to see, whatever Dan thought he was going to see, whatever Dan hoped he would see, what he actually saw was a nightmarish vision of the spirit of the times: a dead monument in an empty landscape, empty of people, empty of light, empty of answers.

His paintings serve to remind archaeologists that, no matter what the past of a monument might be, art will always reflect the present. Archaeologists are often guilty of thinking that we can only really understand sites and monuments in terms of what they were – and that it is that which will inform what they are. But, as this collection of paintings reminds us, sites and monuments exist now, and their meanings are constructed as a mirror to the urgent and pressing realities of the present. Dan's paintings may not provide us with any great insight into Offa's Dyke as an archaeological site, as a historic monument, or even as a place – but they do give us insight into Offa's Dyke in a time when disease and death stalked even our ancient landscapes.

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Art on the March

Howard Williams

Marking the fiftieth anniversary of the Llwybr Clawdd Offa/Offa's Dyke Path, Dan Llwyelyn Hall's exceptional project and published collection *Walking with Offa* celebrated the borderlands landscape under the unexpected and stifling threat of the COVID-19 pandemic and its attendant lockdowns when landscapes and places were especially difficult to access and experience (Llwyelyn Hall *et al.* 2021). For the Offa's Dyke Path and the monument itself, this challenge of access, engagement and understanding was accentuated by contrasting and fluctuating lockdown strategies adopted by the UK government for England and the devolved Welsh assembly for Wales (Williams 2020a).

In this challenging public health crisis and volatile political climate, Dan and his collaborating poets together captured something special about the history and landscape of the Welsh Marches. One is afforded a sense of the depth of time experienced whilst one walks along the Offa's Dyke Path both through and beyond its association with Offa's Dyke. This is because the Path's route both follows and diverges from the traces of the early medieval linear earthwork, taking in numerous historic places and ancient landscapes, many dating from before England and Wales existed. Walking and experiencing the Offa's Dyke Path connects the walker to myth, legend, prehistoric and historical times before, during and after Offa's Dyke was constructed as a Mercian frontier work in the late eighth century AD. Yet, of course, the interplay between Path and monument is complicated in relation to a third crucial line and division: the historic Cymric/English borderline fixed in the early sixteenth century (Fox 1955: 290–293). Whilst these three lines do coalesce for some stretches and cohere in the popular imagination, the art project tackled their shared landscape presence and their historical contingency, as well as dimensions of their material presence and their shared intangibility and complexity (Ray 2020; Williams 2020a).

This makes it all the more striking that while the few artistic reconstructions of Offa's Dyke that exist have focused upon looking *along* and *over* Offa's Dyke (see Williams 2022), the monument is not at all visually rendered through Dan's paintings. Yet in doing so the *Walking with Offa* questioned fixating on the monument's physical presence, scale and legacy as a grandiose project of an early medieval ruler and an enduring *idea* of a bounded discrete Cymru separated from an homogenous England (see Ray 2020). Furthermore, and crucially, *Walking with Offa* helped foreground what Offa's Dyke and its associated national trail mean in relation to each other and to the borderline in the twenty-first century. For me, through paintings and poetry, *Walking with Offa* tackled the changing nature of the March whilst on the march, helping us to walk the line by moving our feet, inspiring our imaginations and shifting our perspectives on a borderland landscape and its history. The

Figure 1: The closing of the *Walking with Offa* project at Valle Crucis Abbey, with the Offa's Dyke Path fiftieth anniversity logo projected onto the medieval monastic ruins (Photograph: David McGlade)

project operated by looking *out* and speaking *out* from the line of the Offa's Dyke Path at the landscape and painting it, thus visualising striking locales along the long-distance footpath. In this way, *Walking with Offa* is as much about walking before, walking after, an walking around Offa as much as it concerns walking with this historical personage and his eponymous dyke.

To fully appreciate how *Walking with Offa* generated an embodied engagement with landscape history, we must recognise how the project engaged with the landscape during the creation of the art itself. This was clearly conveyed through the associated digital media. Here, we witness the paintings composed in all weathers and the poets speaking to us as they walk and stand in the landscape. Both dimensions interleave in the project's YouTube videos.[1]

The second embodied dimension of the project was the series of in-person gatherings to celebrate the borderlands as a separate space, neither fully England nor Cymru. These involved songs and celebrations as well as the performance of select poems and the display of Dan's paintings. Key moments included 11 July 2021 at the Offa's Dyke Centre in Knighton

[1] https://www.youtube.com/@studioofdanllywelynhall3345/videos

Figure 2: 'Cynddylan on the Rocks' by Geraint Jones at Llanymynech (Photograph: Howard Williams)

Figure 3: 'Clawdd Offa' by Oliver James Lomax in the Vale of Montgomery (Photograph: Howard Williams)

which included a memorial walk to Panpunton Hill (Williams 2021a; 2021b: 8, 10) and the culmination of the project with a series of talks and performances amidst the evocative ruins of the later medieval Valle Crucis Abbey on 11 December 2021 (Williams 2023).

The third and (for me) most significant way by which the project interacted with the Path and Dyke was by joining the existing complex set of signposts, waymarkers and heritage interpretation panels situated along the footpath. In doing so, the poems and paintings join together with a few significant art installations along the line of Offa's Dyke including the Circle of Legends at Tintern (Williams 2020b) and King Offa at Plas Power (Ray and Bapty 2016: 367). Two examples that I have encountered whilst walking the Dyke in 2022 and early 2023 serve to illustrate this point. At Llanymynech Rocks, on the line of the Path close to the postulated course of the Dyke which encircles Asterley Rocks, one can read afixed a post the poem 'Cynddylan on the Rocks' by Geraint Jones (Figure 2). Where the Vale of Montgomery is divided by the progress of the earthwork, one can read 'Offa's Dyke' by Oliver James Lomax (Figure 3). In this way, each responds to the particular qualities of the place, the modern border, the path and the monument. In the former, Jones is able to reflect on imagined alternative Cymric traditions linked to Llanymynech's Iron Age hillfort and Offa's Dyke (see Fox 1955: 66–67; Ray and Bapty 2016). The latter poem tackles the divide that Offa's Dyke is popularly perceived as manifesting, one between the British lands of Cymru and the 'Saxons' of what was to become

England. Thus, the installation is deftly situated upon one of the few stretches where Offa's Dyke and the modern Cymru/England border coincide and where the Path passes between England and Wales through a gate (it is also notable and saddening to see the Welsh language text has been already defaced).

In summary, the power of this art project, and the precedent it sets for future artistic endeavours, is to offer a compilation of creative responses which offer an inclusive sense of the Welsh Marches and the early medieval monuments that traverse and helped shape it. This is something one cannot capture through traditional maps, driving and/or site visits, or indeed from a single poem or artwork (see also Williams 2022). Thinking of the future, we must consider *Walking with Offa* as a source of inspiration for further ways we can involve the arts alongside new modes of mapping and visualising the monuments and their landscapes (cf. Delaney 2021). This was a challenge John Swogger and I attempted via the comic medium for another linear earthwork in the Anglo-Welsh borderlands, Wat's Dyke (Swogger and Williams 2021). Yet there are many further potential visual and multimedia strategies for public engagement involving the arts (see Williams *et al.* 2019).

Over the years, I feel I have studied Offa's Dyke and its landscape in depth via maps and publications, drawing upon existing expert investigations (e.g. Fox 1955; Hill and Worthington; Ray and Bapty 2016) but also by visiting much of Offa's Dyke where it survives as a monument. I have also traversed significant sections of the Offa's Dyke Path both where it follows the early medieval monument and departs from its route. Similarly, I have visited many other prehistoric and historic monuments and landscapes in the 'shadow' of the trail, border and Offa's Dyke. Yet, tying them together, providing them with cultural and historical glue, remains an ongoing venture. This is the challenge for artists as well as archaeologists, historians, and heritage interpreters alike, and one which the paintings and poetry of *Walking with Offa* inspire us (and certainly me) to continue pursuing through a host of strategies and to tell a diversity of stories about people, place and the borderlands landscape (Ray and Bapty 2016: 373–376). *Walking with Offa* has articulated clearly the power of art created in moments to collapse time: to transcend space and millennia, helping local audiences and visitors alike to learn and reflect on the story of the Welsh Marches. The project thus celebrates the dyke's history but also its present-day redundancy and the many futures this earthwork has still to witness. As Gillian Clarke's poem attests, while Offa's Dyke persists as a monumental relic, as a division it is equally now 'no more than a line in the mind'. Or as Gladys Mary Coles sees it, a concept 'now returned to concept'.

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