

# Placing the Pillar of Eliseg: Movement, visibility and memory in the Early Medieval Landscape

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The landscape context of the early 9th-century monument known as the Pillar of Eliseg is interrogated here for the first time with GIS-based analysis and innovative spatial methodologies. Our interpretation aims to move beyond regarding the Pillar as a prominent example of early medieval monument reuse and a probably early medieval assembly site. We demonstrate that the location and topographical context of the cross and mound facilitated the monument's significance as an early medieval locus of power, faith and commemoration in a contested frontier zone. The specific choice of location is shown to relate to patterns of movement and visibility that may have facilitated and enhanced the ceremonial and commemorative roles of the monument. By shedding new light on the interpretation of the Pillar of Eliseg as a node of social and religious aggregation and ideological power, our study has theoretical and methodological implications for studying the landscape contexts of early medieval stone monuments.

## Introduction

Recent research has revealed the profit of combining biographical and landscape approaches to early medieval stone monuments, drawing upon, where available, a range of methods and techniques.<sup>3</sup> The landscape can be considered far more than a backdrop in which social identities and social memories were inscribed and embodied through the raising and use of carved stones. Instead, locations and spatial settings are instrumental to the intended and acquired social and mnemonic significances of both recumbent and vertically raised, free-standing stones.<sup>4</sup> This paper applies a landscape approach to the study of the Pillar of Eliseg, a unique early medieval stone monument which can be regarded as in situ and linked to public ceremonial and commemorative practice (Fig 1). Our aim is to explore two particular dimensions of this monument's landscape context — movement and visibility — addressing the military, socio-economic context and commemorative significance of the early medieval cross on a mound as a place of assembly in a contested frontier zone.

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<sup>3</sup> Williams et al 2015a.

<sup>4</sup> Back Danielsson 2015; Coatsworth 2015; Crouwers 2015; Edwards 2001; Hall 2015; Reynolds and Langlands 2011; Williams 2011; Williams et al 2015b.



FIG 1  
The Pillar of Eliseg from the west. *Photograph by Howard Williams.*

Comprising fragments of an early medieval stone cross situated on an older mound, the Pillar of Eliseg (Llandysilio yn Iâl, Denbighshire, Wales) has a long biography of use and reuse. It is widely accepted as a rare example of an early medieval sculpted stone monument, originally most likely a free-standing cross, that gave its name to the later Cistercian monastery — Valle Crucis — located at, or very close to, its original location.<sup>5</sup> The cross is dated to the early 9th century by its long and unique Latin inscription. This was first recorded in the 17th century but is now almost completely worn away.<sup>6</sup> The text honours Concenn (Cyngen), son of Cadell, ruler of the kingdom of Powys, before commemorating his lineage and the deeds and military victories of his great-grandfather Elise ap Gwylog (Eliseg): a contemporary of King Offa of Mercia.<sup>7</sup> The inscription's latter (lower) half, projects back imagined, distant imperial and saintly associations for Concenn's dynasty by claiming descent from the Roman usurper emperor Magnus Maximus (died 388) and the sub-Roman tyrant Guarthigirn (Vortigern) and citing the blessing of the local saint, Germanus.<sup>8</sup>

Recent fieldwork by Bangor and Chester Universities — Project Eliseg (2010–12) — has identified new dimensions to the context and biography of the mound upon which the cross is situated, suggesting that text, form and location operated together in the workings of social memory for early medieval audiences. Survey and excavation in the immediate

<sup>5</sup> Edwards 2001; 2008; 2009; 2013a, 322–36; 2013b, 56–8.

<sup>6</sup> Edwards 2009, 146–9; 2013a, 322–36.

<sup>7</sup> Charles-Edwards 2013, 417; Edwards 2009, 155–68; 2013a, 322–36; Williams 2011, 17–20.

<sup>8</sup> Edwards 2009, 170.

environs of the Pillar, using modern archaeological methods, has confirmed the mound was a multi-phased, Bronze-Age kerbed cairn with multiple burial cists inserted in secondary locations.<sup>9</sup> The erection and use of the early 9th-century cross on this mound can be interpreted as a conscious and overt act of monument reuse, appropriating and transforming a much earlier monument. In doing so, cross and mound became invested with heroic and legendary associations, perhaps tied to those individuals named as ancestors of the kings of Powys in the monument's propagandistic text.<sup>10</sup> This is an example of early medieval text and context operating in dialogue; the inscription, stone cross and mound working together as a multimedia technology of remembrance. The cross created a link between the present and heroic pasts, thus projecting kingly power and authority, as well as God's blessing, over both people and their territory. In doing so, the 'Pillar' was a commemorative project aimed at cohering past, present and future.<sup>11</sup> This locality, as with Powys as a whole, was sandwiched between powerful rivals to the west (Gwynedd) and the east (Mercia); the line of succession and independence of Powys subsequently failed with Gwynedd's 9th-century expansion.<sup>12</sup> The Pillar of Eliseg, as an early medieval monument, thus represents a creation of royal patronage that made bold claims by beleaguered rulers in a contested frontier landscape which may have fluctuated between Mercian and Powysian control.

Project Eliseg's fieldwork has also identified new evidence of the Pillar's cultural biography from the Early Middle Ages down to the present, notably its 18th-century antiquarian investigation and subsequent restoration by the local squire, Trevor Lloyd. The cross had remained an enduring medieval landmark adapted into the Cistercian monastic landscape during the 13th century, subsequently toppled by unknown agents in the 17th century, and mobilised again in the creation of new antiquarian identities for local elites in the late 18th century through the mound's investigation, the Pillar's re-erection and re-inscription.<sup>13</sup> Inspired by recent biographical approaches to early medieval carved stone monuments,<sup>14</sup> this new evidence, combined with a comprehensive appraisal of the historical, antiquarian and archaeological evidence relating to the monument, provides the basis for a new biography of the monument to be written from prehistory to the present.<sup>15</sup> Project Eliseg's forthcoming monograph will also consider the monument's reception and reuse in literary and heritage contexts down to the present day, including the impact of the 2010–12 fieldwork upon popular engagements with the monument.<sup>16</sup>

## Exploring the Pillar of Eliseg's landscape

By providing new insights into the monument's biography, Project Eliseg has also provided the firm foundation for interrogating the landscape context of the Pillar. Why was the monument situated in this precise location? What do we know about the monument's environs? Was it merely the presence of an ancient mound that motivated its commissioners, but if so, why *this* mound and not one of the other prehistoric monuments that visibly

<sup>9</sup> Edwards et al 2011; 2013; 2014; <<https://projecteliseg.wordpress.com/>> [accessed 9 Jan 2017].

<sup>10</sup> Edwards 2001; 2009; 2013a and 2013b; Williams 2011.

<sup>11</sup> Williams 2006; 2011.

<sup>12</sup> Davies 1982, 104–6.

<sup>13</sup> Edwards 2009, 143–9; Edwards et al 2011; 2013a; 2014.

<sup>14</sup> Eg Hall 2015.

<sup>15</sup> Edwards et al forthcoming.

<sup>16</sup> Tong et al 2015.

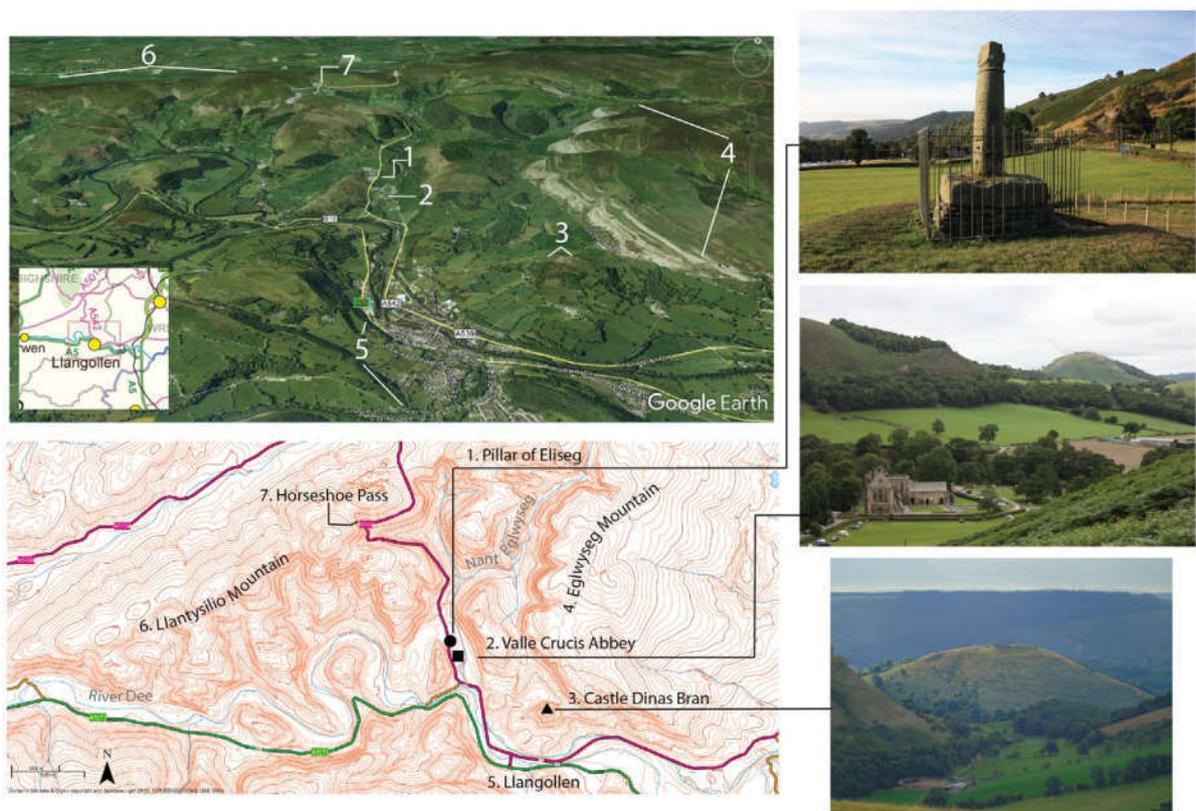


FIG 2

The location of the Pillar of Eliseg. *Base map* © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

peppered the early medieval landscape? This article shows that many interleaving factors — including possible relationships with other monuments, specifically the region’s dykes, the locations of contemporary religious sites and burial sites, settlement patterns and field systems, vegetation, topography and land-use, as well as routes of communication — affected the choice of location for this early medieval monument.<sup>17</sup>

While ancient mounds are recognised as important and widespread features of open-air assembly across northern Europe in various guises,<sup>18</sup> we can begin to discern a specific logic to the early 9th-century reuse of a prehistoric mound as a locus for ceremony and assembly. The Pillar and its mound are situated on a prominent spur, overlooking the landscape as the ground falls away towards the Eglwyseg stream to the east and towards the site of the later Cistercian abbey of Valle Crucis and the Vale of Llangollen to the south (Fig 2). The monument presides over a ridge to its north. To the west, a shallow basin is framed by steeply rising ground. Together, this relatively well-drained area to the north and west might have readily served as an early medieval assembly site, as well as located on a route of communication between the Vale of Llangollen to the south and the uplands to the north.<sup>19</sup> In the vicinity of the Pillar, there are tentative but inconclusive traces of high-status early

<sup>17</sup> Eg Brookes 2007; Williams et al 2010; see now Baker and Brookes 2015a; Semple and Sanmark 2013.

<sup>18</sup> Baker and Brookes 2015a, 9; Bradley 1987; Darvill 2004; Semple 2013; Semple and Sanmark 2013, 532–4b; Williams 2006.

<sup>19</sup> Williams 2011, 24–5.

medieval activity in the form of cropmarks and an isolated metal-detector find.<sup>20</sup> The local situation of the Pillar, as well as the legal character of its Latin text redolent with allusions to legendary pasts, suggest the monument was positioned not only to reuse a prehistoric mound and thus mobilise ancestral and/or spiritual associations, but to dominate and engage with those traversing the valley at a natural arena for aggregation and public ceremony.

The broader environs also need to be considered. The breathtaking wider landscape of the Pillar can be characterised as a narrow and somewhat secluded N/S side valley overlooked by higher points and joining the Vale of Llangollen at its southern end. The Pillar is thus located between the hills Fron Fawr and Coed Hyrddyn, west of the impressive towering limestone cliffs of the Eglwyseg Mountain and enclosed from the north-west by the sheer Llantysilio Mountain. The Pillar is also only 1 km north of the confluence between the Nant Eglwyseg and the Dee. Due to this topographical configuration, the Eglwyseg valley can be considered both a secluded space and a natural passageway between the Clwydian Range and the Dee Valley, crossing through the Llantysilio Mountain via the impressive mountain pass Bwlch yr Oernant (also known as the Horseshoe Pass). Historically, the main road between Llangollen and Ruthin was also through the Eglwyseg valley, taking a turnpike road through Pentre-dwfr, which nowadays also connects to the county of Wrexham and on to Chester.<sup>21</sup>

This is a rural landscape heavily affected by agricultural activity and industry since medieval times, and our knowledge of early medieval and earlier patterns of land-use and settlement patterns are restricted and heavily biased towards the unenclosed uplands. Moreover, there are no monuments in the immediate vicinity of contemporary date to the Pillar of Eliseg: this monument seems striking and distinctive in the context of the Vale of Llangollen, but for the concentration of early medieval carved stones, including a 10th-/11th-century free-standing cross at the putative *clas* (mother) church at Corwen.<sup>22</sup> However, mapping the archaeological evidence reveals a rich range of prehistoric ceremonial monuments and hilltop fortifications, hinting at a varied landscape of human occupation through the later prehistoric and early historic periods (Fig 3). Early medieval people occupied a landscape populated by these inherited, fortified sites and mounds, even if it remains unclear how many were reused in the period.<sup>23</sup> The location was rich in natural affordances which attracted and supported the Cistercian monastic community from the 13th century.<sup>24</sup> The Pillar was not occupying a peripheral or 'liminal' place, but one with access to varied hunting and farming resources, at a clear intersection between geologies and water courses.<sup>25</sup>

This impressive landscape seems to have been of profound significance in terms of elite religious and secular power and practices during later medieval times, as revealed by a triad of significant medieval sites (see Fig 2): Valle Crucis Abbey, Castell Dinas Brân and Llangollen. The foundation of the Cistercian abbey of Valle Crucis by Madog ap Gruffyd in 1201 (only 400 m south of the Pillar), might have supplanted an earlier church site, although this has left no material trace.<sup>26</sup> Although these sites, in historical terms, were established

<sup>20</sup> Edwards et al forthcoming.

<sup>21</sup> Edwards 2009, 163; Williams 2011.

<sup>22</sup> Edwards 2013, 377–85.

<sup>23</sup> Bennett 1995; Pratt 1995; Sherratt 2000; Silvester and Hankinson 2002; Clwyd-Powys Archaeological Trust 2015a.

<sup>24</sup> Williams 1990, 105.

<sup>25</sup> Semple and Sanmark 2013, 528–32; parallels might be found in the work of Elizabeth FitzPatrick on the relationship between assembly places, ancient monuments and landscapes of varied geologies making them attractive for seasonal hunting: Fitzpatrick 2012; 2015.

<sup>26</sup> Edwards 2009, 149; Williams 2011, 24.

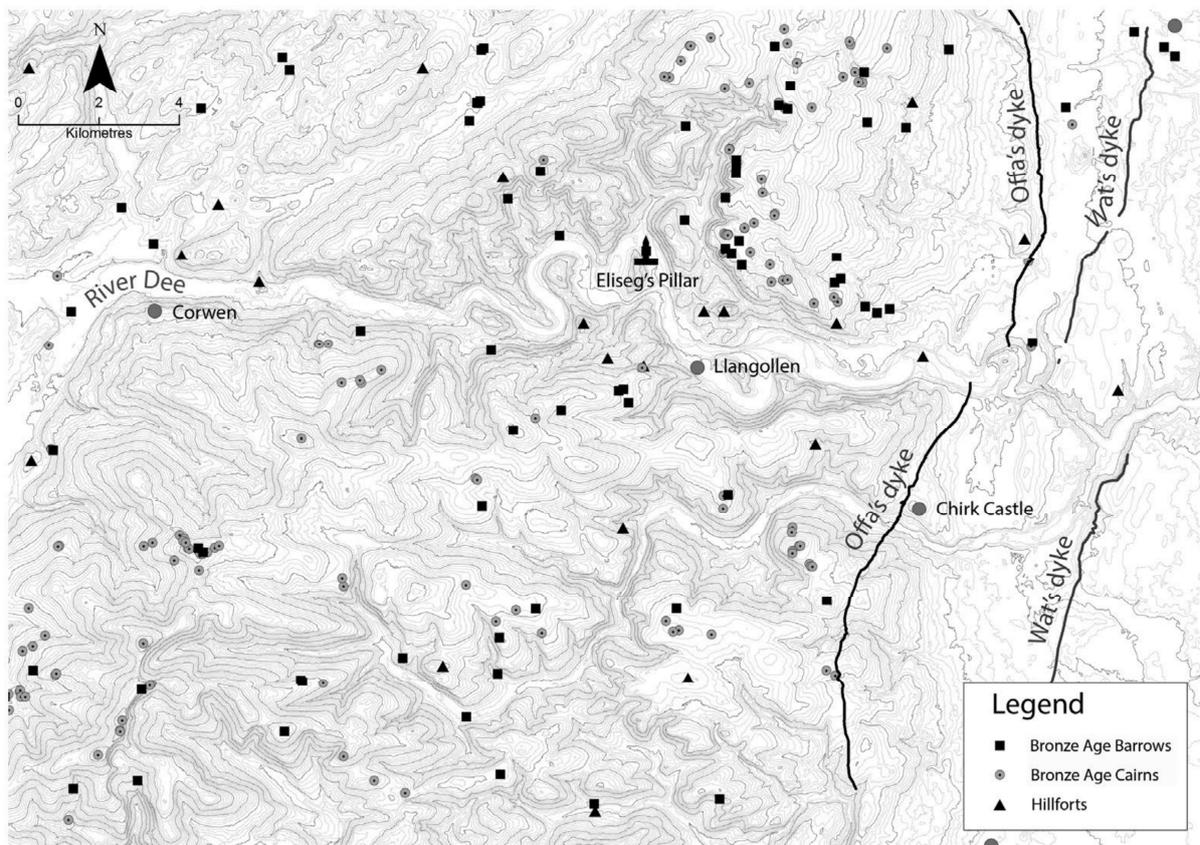


FIG 3

The principal types of standing ancient monuments in the environs of the Pillar of Eliseg and the Vale of Llangollen, incorporating data supplied by Clwyd-Powys Archaeological Trust. *Base map* © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

four centuries after the erection of the Pillar, the construction of the abbey seems to signal an importance greater than the abundant resources of the area. The abbey's situation might mark the longer-term symbolic prominence and sacred associations of this land.

Meanwhile, the Welsh construction of Castell Dinas Brân by the 1260s on the top of the most impressive hill of the valley and on the site of a prehistoric univallate hillfort (only 2 km south-east from the Pillar), may have appropriated a hilltop utilised for settlement, or as a refuge in the Early Middle Ages, although as with so many potential early medieval fortified sites, there is no surviving diagnostic structural or artefactual evidence of early medieval activity.<sup>27</sup> Still, the hilltop is strategically located in a riverine location, controlling movement along the Vale of Llangollen, which matches the location of other attested early medieval fortified elite sites.<sup>28</sup>

Thirdly, and no less significantly since both abbey and castle frame the site, there is the nearby *clas* church of Llangollen. Although we have no direct evidence regarding how early this site became a Christian cult centre dedicated to St Collen, it was situated at a ford of the River Dee, central to the vale, and was an important locus of trade and communication in the Late Middle Ages.<sup>29</sup>

<sup>27</sup> Seaman 2016.

<sup>28</sup> Ibid, 41; see also Kightly 2003; Edwards 2008; Clwyd-Powys Archaeological Trust 2015b.

<sup>29</sup> Silvester and Evans 2009; cf Davies 1982, 140–3; Charles-Edwards 2013, 602–14.

The discussion thus far provides context for Nancy Edwards' argument that the Pillar was originally situated to mark and form a performative locale of an early medieval assembly site:<sup>30</sup> a poorly understood category of temporary site that hitherto has lacked a ground-truthed dimension in North Wales.<sup>31</sup> Edwards also speculates, based on the nature of the form of the cross as well as its inscription,<sup>32</sup> that the Pillar might have been raised as a focus for royal inauguration ceremonies. Building on this, we suggest in this paper that the cross might have been located *between* important *clas* churches, to mark key routes of movement into and through the Nant Eglwyseg into the Vale of Llangollen.<sup>33</sup>

The monument and its landscape were thus intimately connected from its inception. The stone source for the base and pillar might be significant in these regards. The likely source for both stones, while far from certain, is Cefn-y-Fedw Sandstone. This is sourced near the northern edge of the mouth of the Vale, 9 km east of the Pillar's location on Ruabon Mountain (and thus just west of Offa's Dyke).<sup>34</sup> Hence, the transportation and carving of the monument might together have operated as a form of public performance operating at a landscape scale. The final monument would subsequently commemorate this act of extracting and moving the stone up the Dee, and would perpetuate knowledge of its relationships to its source, the route taken, and other locations en route, as well as enhancing its final locale.<sup>35</sup>

Together, these arguments help us to consider the influence of this monument's setting in understanding the cross's erection and use in projecting royal power, Christian faith and the social memories connecting the two, at a place intended for regular assembly. The martial characteristics of the text, celebrating past military victories, might intimate this was also a locale for mustering troops and/or the actual or imagined location of one or more of the battles of Elise and Concenn. Although our detailed appreciation of the early medieval landscape remains sketchy given the widely recognised difficulty of identifying early medieval settlements and burials in western Britain, this triad of locales in the vicinity suggest that the landscape of the Pillar of Eliseg was positioned not only at a strategic location, but also within a zone of importance for the early medieval societies that inhabited the region. The environs within which the Pillar is placed might even be considered a multi-nodal 'central place' in the Early Middle Ages, where both sacred and secular dimensions coalesced at an assembly place, drawing upon a clear connection to 'ancestral authority'.<sup>36</sup>

However, to date, there has been no systematic attempt to investigate the site in relation to its wider landscape setting. Building on this recent work, and as part of the ERC-funded *Past in its Place* project investigating topographies of memory from archaeological and literary perspectives, this article explores how the Pillar of Eliseg operated in relation to movement and vision to create and reproduce social memories for those engaging with the monument by inhabiting and traversing the landscape.<sup>37</sup> Using GIS-based accessibility and visibility analyses, the goals are: to understand the importance of the region in terms of routes of communication and to establish the role of the Vale of Llangollen as a main natural corridor;

<sup>30</sup> Edwards 2009, 168–9.

<sup>31</sup> Charles-Edwards 2004; Comeau 2014.

<sup>32</sup> Edwards 2009, 152–5.

<sup>33</sup> Williams 2011, 24–5; cf Kirton 2015.

<sup>34</sup> Edwards 2013, 324–5.

<sup>35</sup> Williams 2011; see also Kirton 2015; Williams et al 2015b; Williams 2016.

<sup>36</sup> For a view of assembly places as zones in the early medieval Welsh landscape, see Comeau 2014, 278–81. See Seaman (2016, 41) regarding the twinning of ecclesiastical and hilltop sites which might provide parallels to the association of the Pillar with Castell Dinas Brân and Llangollen.

<sup>37</sup> cf Back Danielsson, 2015.

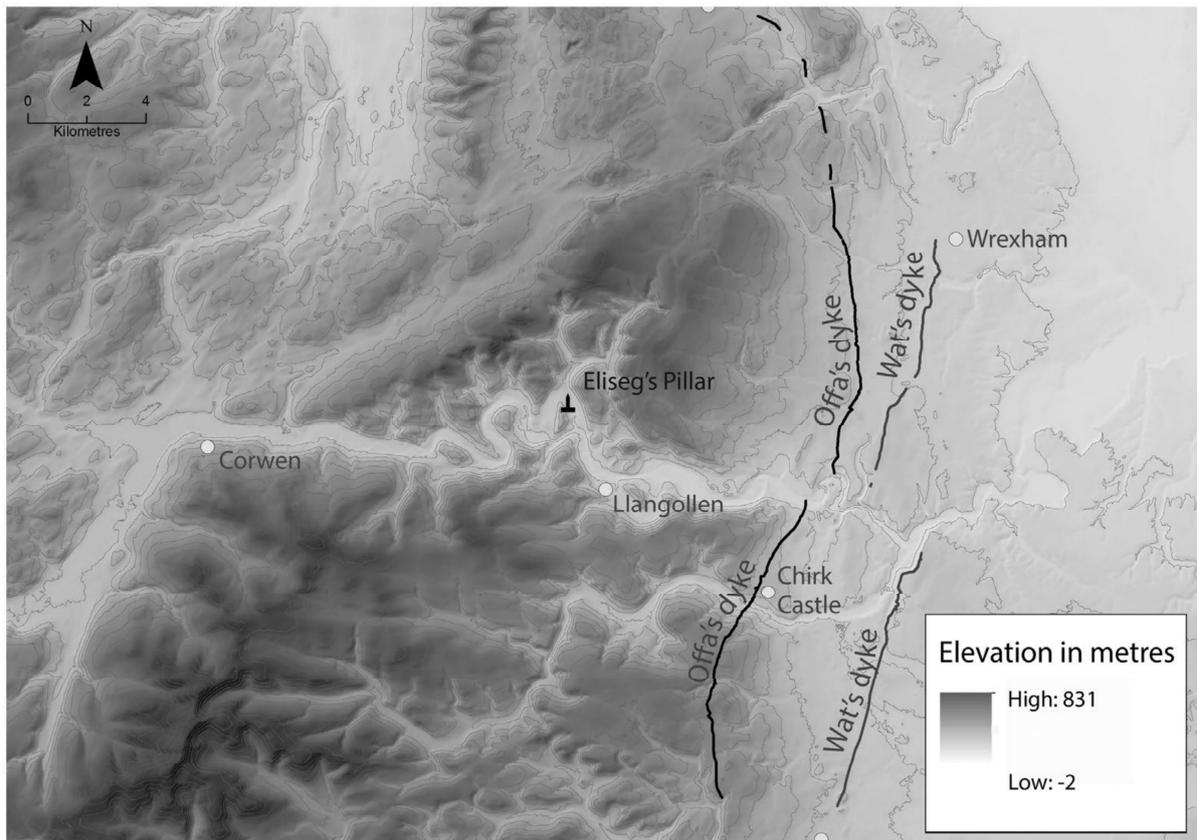


FIG 4

The topography of the wider landscape around the Pillar of Eliseg. *Base map* © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

secondly, to understand the visual structuration of this landscape and identify the possible role of its features in the surveillance of the frontier and of those approaching the Pillar, as well as the visual interaction between lower lands and the surrounding mountains; and finally, through the results of the analyses, to provide interpretations of the role of the Pillar as a presiding feature in this landscape.

Here we demonstrate that the monument not only inhabited a landscape of secular and religious power and perhaps rich myths and legends adhering to the topography and ancient monuments, but also a contested landscape in all its dimensions. In addition to reusing a pre-existing mound, the cross's location was significant because it was bordered by high geographical points, located in a valley enclosed by mountains and what could be considered a natural 'amphitheatre', facilitating visual and other sensory experiences along the main routes of communication to the Pillar. It was also surrounded by exploitable resources, and it is only a few miles away from the only gateway or 'opening' of the Vale of Llangollen into the Cheshire Plain, guarded by Offa's Dyke (traditionally dated to the late 8th century<sup>38</sup>) and Wat's Dyke (now plausibly dated to the early 9th century: contemporary with the Pillar's construction<sup>39</sup>) (Fig 4). Its specific setting, and possible spatial relationships with the diverse

<sup>38</sup> Fox 1955; Noble 1983; Hill and Worthington 2003; Ray and Bapty 2016.

<sup>39</sup> Hayes and Malim 2008, 172–8, see also Worthington 1997; Worthington Hill and Grigg 2015, 162–6, 176–7. Although, note reservations regarding the dating by Ray and Bapty 2016, 20.

features in its landscape, add new dimensions to the full story of the Pillar and enhance our contemporary understanding of its early medieval meaning and purpose.

## Methods: Accessibility and visibility analysis with GIS

While Geographic Information Systems have become a routine dimension in data management for archaeologists, their true potential lies in their capacity to carry out advanced spatial analysis. In the case of this research, we carried out two specific types of test. Due to their effectiveness in addressing questions of geographical but also social character, Visibility and Cost Surface analyses have been widely used in archaeology,<sup>40</sup> and were therefore the tests chosen to examine the structuration of the landscape of the Pillar of Eliseg. This is because we not only want to explore the visual apprehension and possible impact of the Pillar on those moving through the landscape, but also the contested nature of this landscape. We considered it important to ‘escape’ from an exclusively dyke-centred view of potential routes and lookout points<sup>41</sup> by considering how this setting was controlled visually in relation to any gatherings taking place at the monument, and in light of its status as a contested landscape at the time of the erection of the cross.

All the analyses were carried out with ArcGis 10.2 with the exception of the total viewshed calculation, where we used the implementation provided by Tabik et al.<sup>42</sup> The data sets used in this research include the Historic Environmental Records provided by Clwyd-Powys Archaeological Trust, the Ordnance Survey GIS ‘Strategi’ layers, and the OS Terrain 5 with 5 m resolution Digital Elevation Model (DEM) of the region. Full in-depth discussions of the technical details and complexity of Visibility and Cost Surface Analyses, and a full review and assessment of the techniques we have employed in this study, can be consulted elsewhere.<sup>43</sup>

### COST SURFACE ANALYSES

Cost Surface Analysis (CSA) can be understood as the mathematical definition of the cost of traversing the landscape. Using a Digital Elevation Model (DEM) and through a calculation inputting particular variables, a cost is assigned to each cell of the map, allowing to determine the expenditure of travelling from one geographical point to another. To create the cost surface we used the Schneider and Robbins methodology,<sup>44</sup> which allowed us to establish a relative cost of movement based on the terrain. For this model we regarded rivers as impediments for movement. Although rivers can facilitate the movement of people and commodities, and the Dee can be considered an important artery for medieval riverine transportation from at least Overton down to Chester and out to the Irish Sea,<sup>45</sup> in the case of the study area, none of the rivers are known to have been fully and predictably navigable for all but the smallest of crafts, because of the river’s fast flow and many rapids within the Vale. Following recent discussions in relation to Anglo-Saxon England, our focus has been on the importance of overland routes.<sup>46</sup> In addition, depending on deepness and width, rivers

<sup>40</sup> Lock 2000; Earl et al 2013; Frchetti 2006; 2008; Lake and Woodman 2003; Llobera 2007a, 2007b; Llobera and Sluckin 2007; Mlekuž 2010; 2014; Murrieta-Flores 2012; 2013; 2014; Verhagen 2010; Wheatley et al 2010; Wheatley and Gillings 2002.

<sup>41</sup> Baker and Brookes 2015b, 228; Brookes 2013, 43–4; Hill and Worthington 2003, 98–9, 126–8.

<sup>42</sup> Tabik et al 2015.

<sup>43</sup> Murrieta-Flores 2012; 2013; Tabik et al 2015.

<sup>44</sup> Schneider and Robbins 2009.

<sup>45</sup> Edwards 1987, 352–61.

<sup>46</sup> Baker and Brookes 2015b; Brookes 2013; Hindle 2015; Malim 2007; Reynolds and Langlands 2011.

can also constitute significant barriers for those travelling by foot or horseback, emphasised by the importance of the reliable ford (and later bridge) at Llangollen. Therefore, in terms of the model, we considered rivers as obstacles for terrestrial movement in an upland zone, according to the classification given to rivers by the Ordnance Survey as main, minor and secondary, and we took into account places where crossing has been historically recorded such as fords and medieval bridges.

From CSA it is possible to derive Least Cost Paths (LCP). This enables the calculation of natural corridors, or as the name indicates, those pathways that according to the surface calculated will be the least costly, or the easiest to travel on. In this case, we used a sixth-degree polynomial function proposed by Herzog<sup>47</sup> for the calculation of the routes, as its application in other archaeological cases has concluded that this function does not have any of the disadvantages seen in other cost functions.<sup>48</sup>

#### VISIBILITY ANALYSES

The aim of visibility analysis is to explore the visual structure or organisation of particular features within the landscape.<sup>49</sup> In the context of archaeological GIS-based theoretical and methodological developments, it has been long acknowledged that visibility is not the only sense that might play an important role in the perception of the landscape, and the relevance of other senses has been discussed in depth (see for example the work of Gillings and Wheatley, Frieman and Gillings and Llobera; and Wheatley).<sup>50</sup> Nevertheless, visibility is considered important because in human societies, ‘to see’ can have significant cognitive, perceptual and social implications that might have a profound effect on settlement patterns, strategies of survival, and apprehension and engagement with settlements and monuments. In addition, in cases of territorial contestation, such as that known to exist here, places that facilitated visual communication and appraisal might have been crucial to control movement and access. However, military, socio-political and economic strategies or advantage are not the only factors in which visibility of the landscape becomes important. To see and to be seen (or to see and not be seen), can be of particular relevance in social and symbolic terms during gatherings and ritualised performances, and this is most certainly pertinent to considering the role of early medieval crosses in their landscape settings.<sup>51</sup>

The Pillar of Eliseg, due to its seemingly strategic position and possible relationship with the fluid frontiers of Mercia and Powys, suggests that visibility from different points in the surrounding landscape, and to and from the location of the monument, might have played a vital role in its commissioners’ decision to place the monument in such a setting. Therefore, our analyses test the visual structuration of the landscape where the Pillar sits, as well as its surrounding settings, to establish possible relationships with the frontier, particularly with the two prominent linear earthworks located nearby: Offa’s and Wat’s dykes.

In the context of GIS, visibility analysis or viewshed can be understood as the mathematical definition of visibility across a landscape using line-of-sight (LOS) algorithms. Taking into account the topography of the terrain through a DEM, the analysis interpolates a straight line between a source point and all other cells within the DEM, identifying the ones

<sup>47</sup> Herzog 2010, 433.

<sup>48</sup> Murrieta-Flores 2012, 131.

<sup>49</sup> Wheatley and Gillings 2002, 181.

<sup>50</sup> Gillings and Wheatley 2001; Frieman and Gillings 2007; Llobera 2007a, 2007b; Wheatley 2014.

<sup>51</sup> Kirton 2015; Reynolds and Langlands 2011, 421–2.

that according to their height can be seen from the source point holding intervisibility.<sup>52</sup> The result of the calculations is a grid of cells that constitute a binary image or map that indicates whether a cell is visible or not, assigning them values of one or zero accordingly.

A variant of this analysis is called Cumulative Viewshed, which allows the exploration of patterns of visibility within a group of sites or places of interest and it consists of the simple union of two or more binary viewsheds.<sup>53</sup> Binary and Cumulative Viewsheds were carried out, evaluating the visual structuration of the landscape and the Pillar, and in order to incorporate important factors such as the atmospheric refraction and the impact of distance on visibility, we calculated the refractivity coefficient in all analyses (this ensures the refraction of visible light in air, which can strongly impact visibility, is taken into account).

Another interesting variant of GIS-based visibility is Total Viewshed Analysis. This analysis calculates the visibility of all locations of the terrain in one step. Instead of considering what is visible from the location of one observer, this analysis creates a relative visibility index expressed as the proportion of the area that is visible from each cell.<sup>54</sup> This enables the identification of those locations that have the most and the least visibility, taking into account the totality of the landscape. This was used to evaluate the visual prominence of particular areas of the landscape, and we also created Visibility Index Profiles that show the visibility along Offa's and Wat's dykes, detecting those parts of the earthworks that have maximum and minimum visibility. The possible impact of changes in the vegetation layer in these analyses is fully acknowledged and it has been thoroughly discussed elsewhere.<sup>55</sup> Ideally, GIS models such as ours should incorporate paleoenvironmental data. However, in this specific case there have not been many studies on the early environmental history of the region, and it has been argued that, as with other areas of northern Wales, the original woodlands might have been cleared since early prehistoric times, where possibly some small areas of forest were preserved while scrubs might have been the predominant vegetation in the uplands.<sup>56</sup> What is important to bear in mind with GIS-based analysis, is that these are models, and as such, the intention here is not to reconstruct or replicate the early medieval landscape, but to test a diversity of hypotheses.

## Results

### COST SURFACE ANALYSIS

Carrying out a Cost Surface Analysis of the region (Fig 2), we identified the natural routes of communication that cross and lead in and out of the Vale of Llangollen. In many ways, these conform to knowledge of the area's historic routes, enshrined crudely by modern roads. However, some important digressions from modern routes have been identified which have a direct bearing on our understanding of the location of the Pillar of Eliseg.

Due to the topographical configuration of the area, there are nine main routes identified through our analyses that allow people to cross the territory with relative ease (Figs 5 and 6). The most anticipated route runs on the northern side of the Dee (almost parallel to it) in an E/W direction along the Vale of Llangollen (Fig 5: Natural Corridor 1). If travelling from east to west upriver, one might expect that this route would follow the River Dee all the way

<sup>52</sup> Conolly and Lake 2006, 225–33; Wheatley and Gillings 2002, 205.

<sup>53</sup> Wheatley 1995; Wheatley and Gillings 2002, 202–16.

<sup>54</sup> Stewart 1998; Tabik et al 2011; Lindsay 2014; Tabik et al 2015.

<sup>55</sup> Llobera 2007a; 2007b; Guth 2009.

<sup>56</sup> Clwyd-Powys Archaeological Trust 2015b.

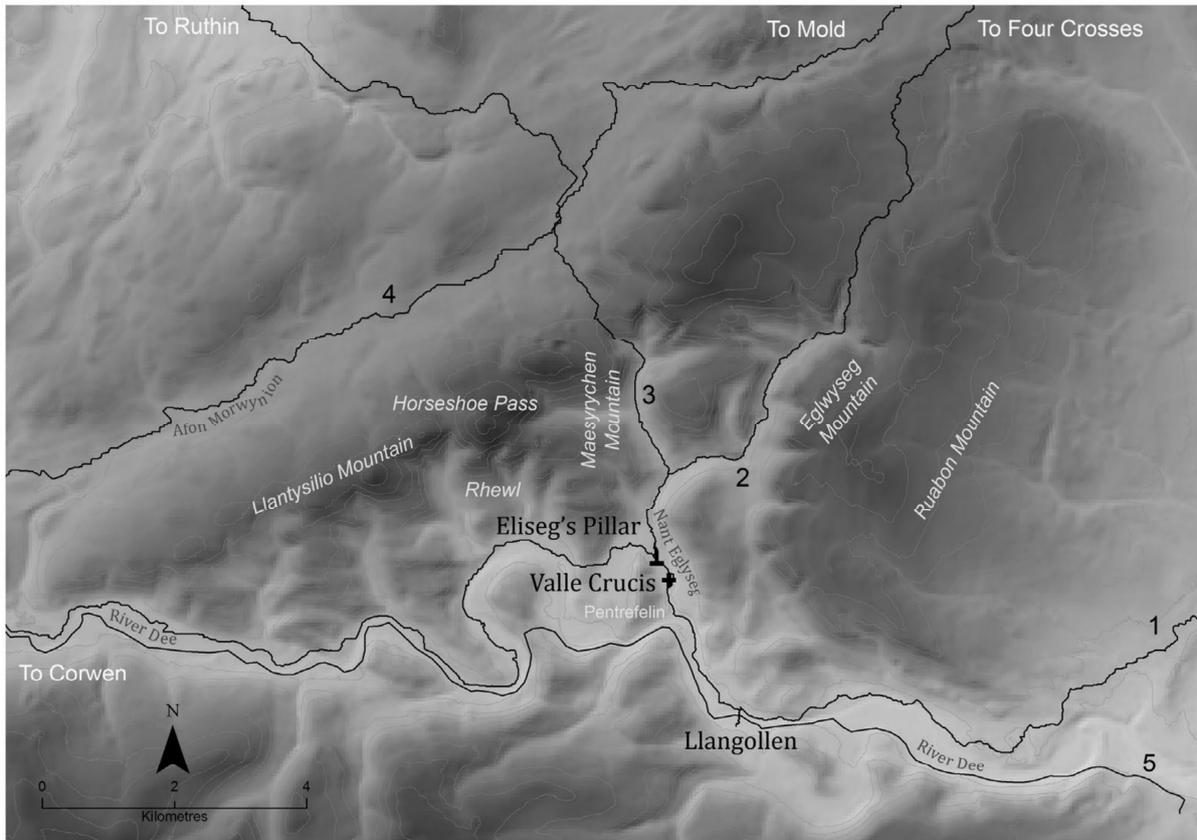


FIG 5

Main natural corridors identified giving access to the Vale of Llangollen. *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

past the entrance of the Nant Eglwyseg and continue upstream towards Corwen. However, it is of great interest to observe that the least cost pathway diverges from the river valley close to Pentrefelin and passes up the Nant Eglwyseg, and thus avoiding the Dee's meandering route, crosses near the site of Valle Crucis Abbey, and passes only a few metres from the Pillar of Elise, before heading west toward Rhewl where it again joins the Dee until it gets eventually to Corwen. Therefore, while the whole of the Nant Eglwyseg from its confluence with the Dee northwards might seem today like a side valley, the Pillar was in fact situated upon the principal W/E corridor through the Vale of Llangollen.

North of the Dee, there are only two main routes of communication leading 'in or out' of the Vale of Llangollen and, again, both pass through the Nant Eglwyseg (Fig 5: Natural Corridors 2 and 3). The more easterly route follows the valley northwards and then passes the Pillar. It then follows the foothills of the Eglwyseg Mountain, and heads in the direction of the Aber Sychnant leading to Four Crosses (Fig 5: Natural Corridor 2). Due to the towering cliffs of Eglwyseg Mountain, this is the only route from the territories on the east (aside from the one following the Dee) which can reach the 'interior' of the Nant Eglwyseg with some ease. Coming from north-western England, this may have been an alternative route into the Vale of Llangollen.

The other route crossing along the Nant Eglwyseg takes a more northerly direction from the Vale of Llangollen (Fig 5: Natural Corridor 3). It comes from the River Dee following

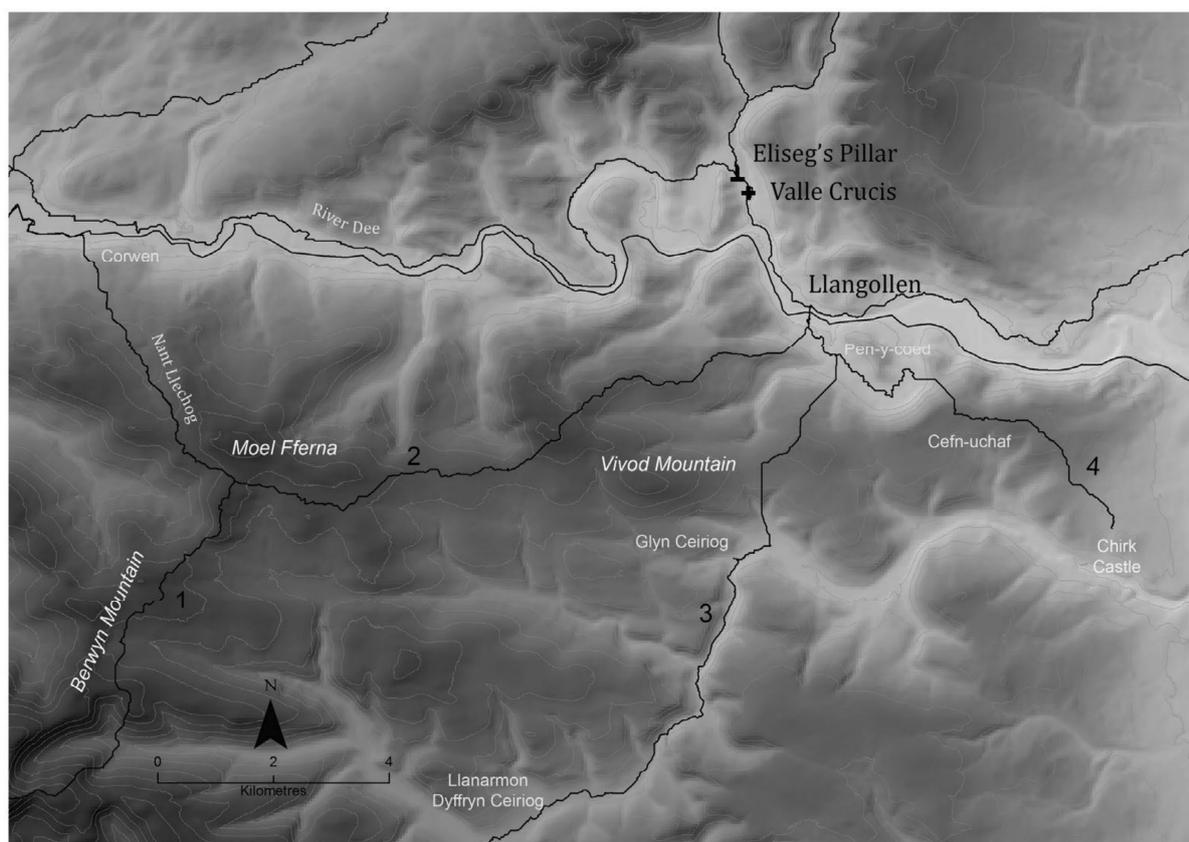


FIG 6

Main natural corridors identified to the south of the Dee. *Base map* © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

the same path past the Pillar of Eliseg, and then deviates to the north-west close to Pen-y-clawdd Farm, running to the east of the modern Horseshoe Pass. Crossing the Maesrychen Mountain, the route leads to the Afon Morwynion from which paths diverge in all directions. Following the Morwynion to the south-west, paths lead to Snowdonia and Llyn Tegid (Fig 5: Natural Corridor 4). Heading north-west would take travellers into the Vale of Clwyd. Heading north along the Afon Alun on the eastern side of the Clwydian Range takes the traveller to Halkyn Mountain and the coastal lands of Tegeingl. Meanwhile, heading north-east takes one towards Four Crosses and on towards the Dee Estuary and Chester.

Finally, on the southern side of the Dee, another natural corridor parallel to the first one mentioned, follows the river also in an E/W direction, following parts of the modern A5 (Fig 5: Natural Corridor 5). This last route is the only one that does not pass immediately by the Pillar of Eliseg, and even here, as we shall discuss below, it passes in the distance and within the viewshed from the monument (Fig 12).

The Pillar of Eliseg is therefore a key node in relation to a network of routes heading west, east and north. However, what of routes from the south of the Vale of Llangollen where the Berwyn Range restricts movement even further? Coming from the mountains to the south of the Dee, there are four natural corridors that lead into the Vale of Llangollen (Fig 6). One goes over the top of the Berwyn Mountains and bifurcates to the east and west close to Moel Ffema. The route to the west follows the part of the Nant Llechog, passing

through Cynwyd Forest and leading to the intersection of routeways from all directions around Corwen (Fig 6: Natural Corridor 1). Towards the east, it passes around Vivod Mountain (following what is now the North Berwyn Way) before dropping down into Llangollen (Fig 6: Natural Corridor 2). Another natural route follows the eastern foothills of Berwyn through the same route taken by the modern B4500, and it crosses Llanarmon Dyffryn Ceiriog and then Glyn Ceiriog before leading also into Llangollen (Fig 6: Natural Corridor 3). The last natural corridor leading into Llangollen from the southern side of the Dee from Chirk Castle in the east (Fig 6: Natural Corridor 4). The route runs through Cefn Ucha common, joining a section of the Llwybr Ceiriog Trail toward Pen-y-Coed before finally reaching the vale at Llangollen. The key point is that Llangollen is the point of convergence for all these routes: only a short distance to the south-south-east of Eliseg's Pillar.

#### VISIBILITY ANALYSES

In terms of the visibility analyses, several observations can be made. An obvious and immediate remark at a larger landscape scale is that the Total Viewshed calculation shows that the Eglwyseg Mountain and some of the summits of the Clwydian and Berwyn Ranges are among the most visible features within the landscape (Fig 7). However, another more surprising observation is that despite the relative lower ground around Chirk, the area shows a high value in the relative visibility index. The same can be concluded for all the area east to the late 8th- and early 9th-century Mercian dykes (Offa's Dyke and Wat's Dyke). These lower-lying areas show up with medium values in the index due possibly to its open topographical configuration and its position in relation to the mountains from which the region can be seen. This provides an interesting contrast with the areas to the west of the Eglwyseg Mountain, at the interior of both the Vale of Llangollen and the Nant Eglwyseg, which have the lowest values on the index. This indicates that despite being surrounded by high locations, the configuration of the terrain in these areas make the valleys visually disconnected. Therefore, a key feature in terms of viewshed is that the Pillar is located in a very secluded location.

This is also supported by the calculation of the Cumulative Viewshed, where we identified the highest points in the surrounding mountains, and used them to carry out this analysis (Fig 8). The logic of identifying these points was to analyse how feasible it would be for watchmen to visually control the natural routes of communication in the surrounding landscape, as well as the access to the Pillar of Eliseg. The results in Figure 8 show the visible areas from the set of observer points in a graduation from light to darker shades. In darker blue are those areas that can be seen from a larger number of observer points, this is to say, it shows the frequency in which the surface is visible from the set of observers (Fig 8).

From this analysis, two important observations can be made. Firstly, deriving a graphic (Fig 9) from the cumulative viewshed which shows the locations ( $x$ -axis) that are 'seen' by a higher number of observers ( $y$ -axis), reveals those points that are highly visible in the network. In this case, Moel y Gamelin, Moel Morfydd, Vivod Mountain, and the former Cefn Ucha common (identified by their Location IDs in Fig 9 as points 1, 7, 11 and 24) have the highest values, indicating that they can be seen from most of the observer points set. This makes them optimal locations to be chosen as possible 'look-out' positions in order to maintain surveillance of the landscape. In addition, the view from these locations covers a vast extent of the interior and exterior of the Eglwyseg and Llangollen valleys, reaching not only the highest points in the Clwydian Range, Llantysilio and the Eglwyseg mountains, but also the main routes of communication leading into the Vale of Llangollen from the east and south

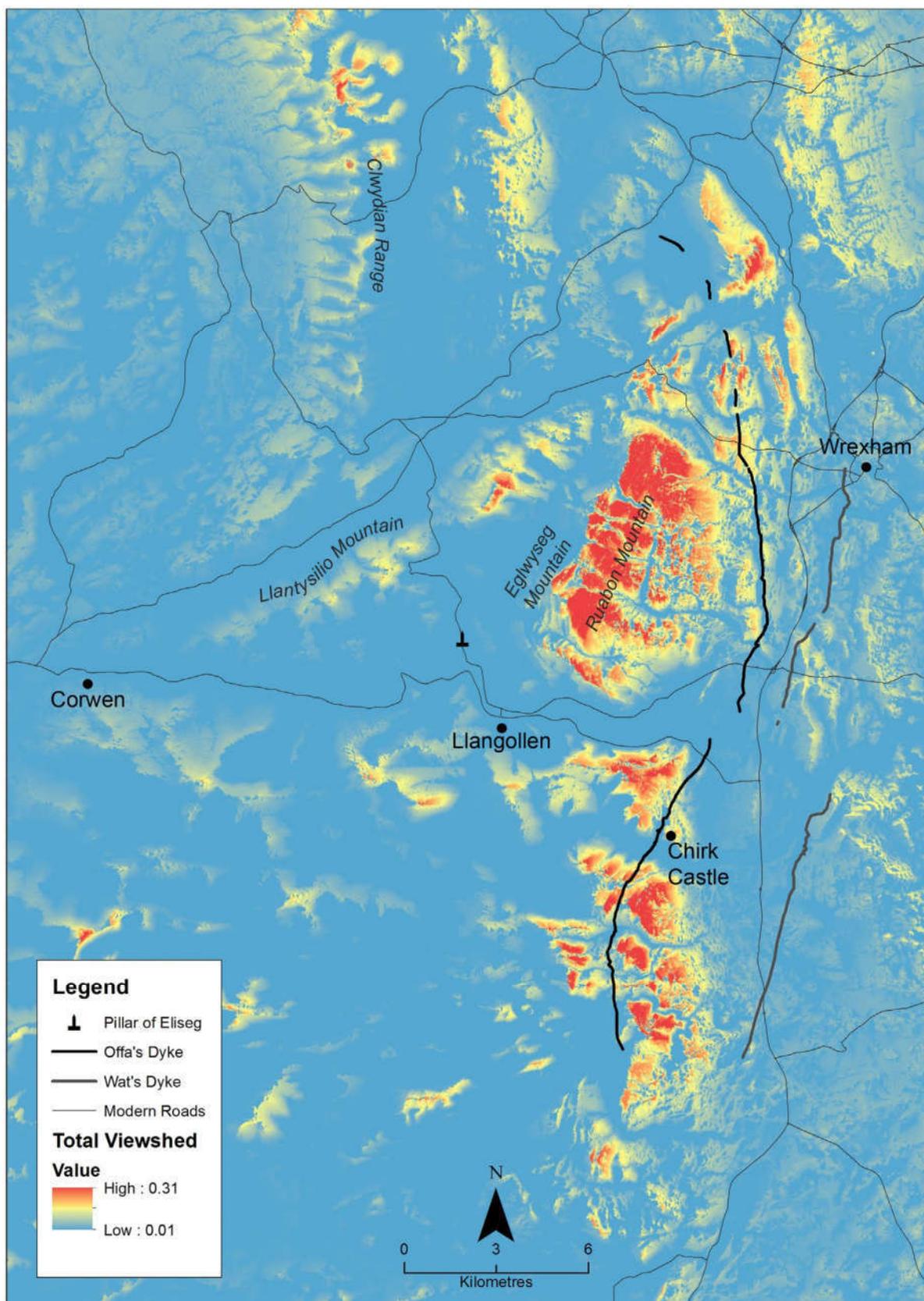


FIG 7  
Total viewshed analysis around the Pillar of Eliseg. Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

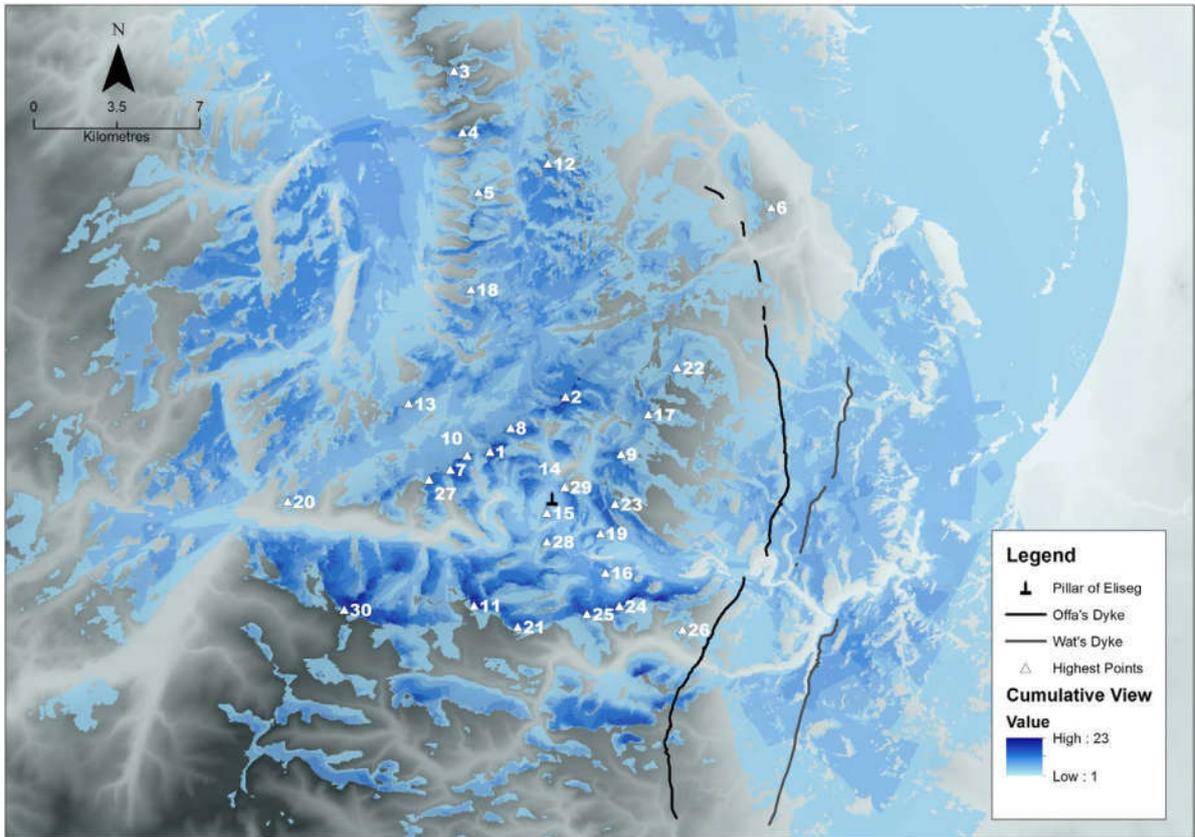


FIG 8  
 Cumulative viewshed around the Pillar of Eliseg. Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

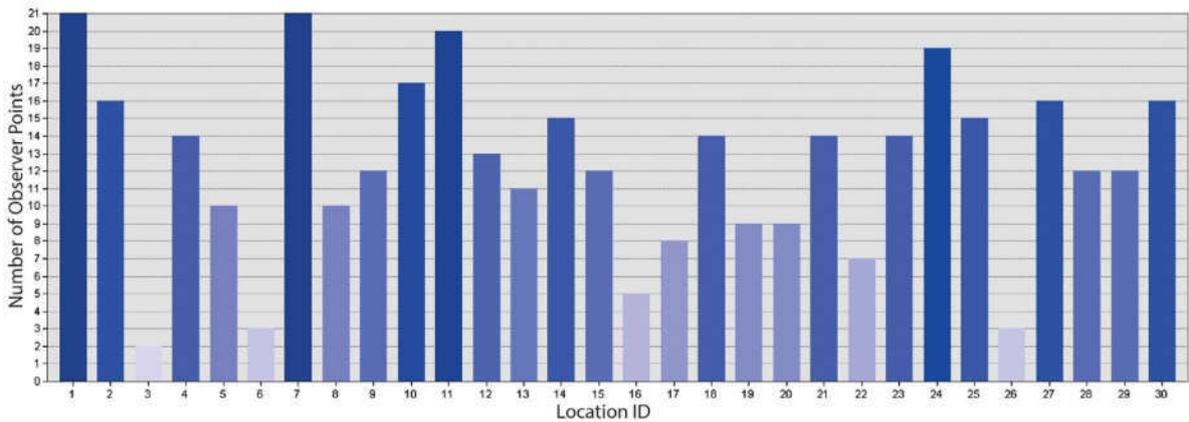


FIG 9  
 Locations visible from each observer point calculated (see Fig 6).

(Fig 10). These locations, and particularly Cefn Ucha common (location 24), might have played an important role in relation to the visual control of the region (discussed below). Secondly, the very low values evident in the areas where the natural corridors are, in both

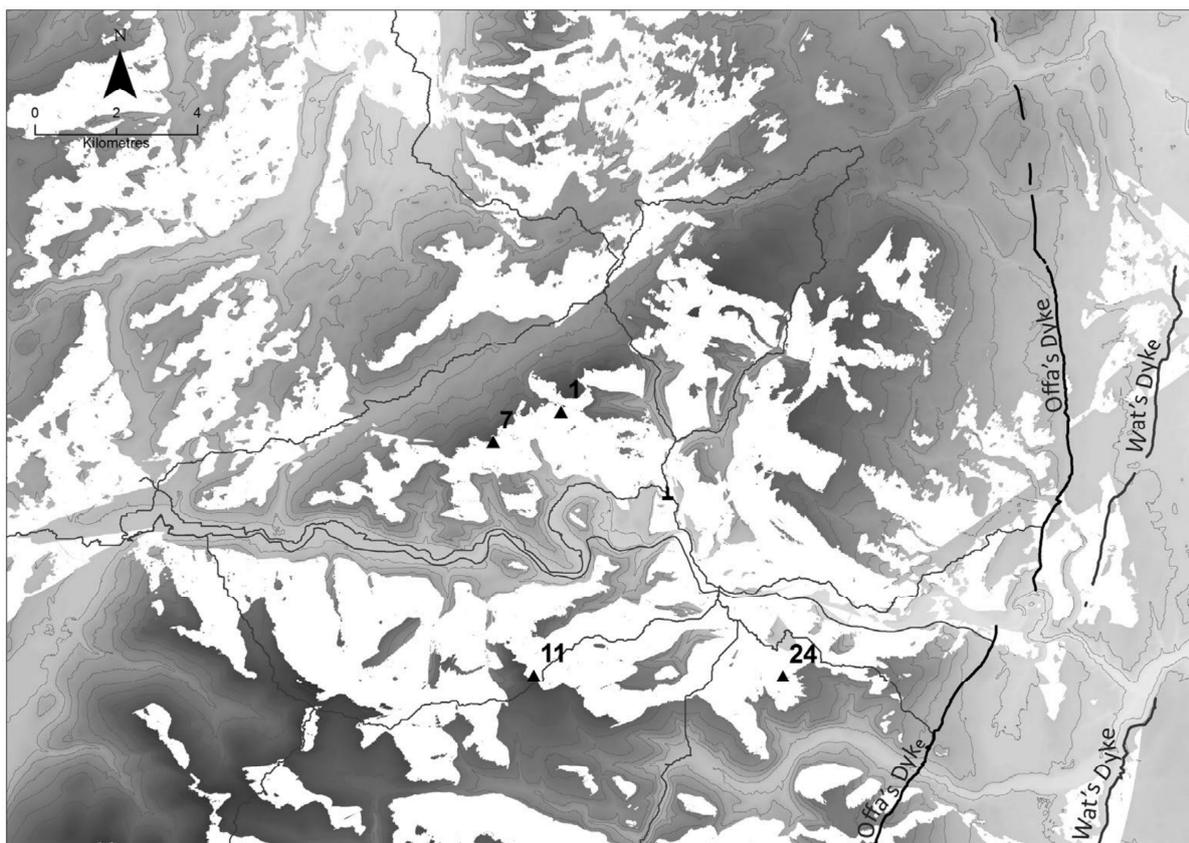


FIG 10

In white the visual area covered by points 1, 7, 11 and 24, demonstrating that only few points are needed to cover the natural routes of entrance into the Vale of Llangollen. *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

the Eglwyseg and Llangollen valleys, reveal that the cumulative viewshed analysis supports the observation made in the Total Viewshed about visual isolation, indicating that the main routes of communication were visually covered by a small number of locations situated at the highest points of this landscape (Fig 10).

The viewshed from the Pillar of Eliseg reveals that visibility is very restricted and it has a main NW/SE direction (Fig 11). In terms of visual dominance, it covers some sections of the main route that crosses the Nant Eglwyseg. It is also interesting to observe that the viewshed from the Pillar of Eliseg reaches Cefn Ucha common (location 24) to its south-east, which as explained previously, is one of the highest and most visible points in this landscape of the Vale and its immediate environs. Further calculation of Lines of Sight reveal that Cefn Ucha common is not only intervisible with the Pillar of Eliseg and Dinas Brân, but also with the highest points along the Mercian frontiers, including those that would have been crucial for the surveillance of both Offa's and Wat's dykes. In the opposite direction, a small area at the top of the ridge line beside Bwlch yr Oernant (Horseshoe Pass) is intervisible with the Pillar, meaning that a lookout post and/or beacon set here could warn those gathered at the Pillar of anyone approaching into the Nant Eglwyseg. Incidentally, views northwards from this area stretch as far as Moel Famau: the highest point of the Clwydian Range. The

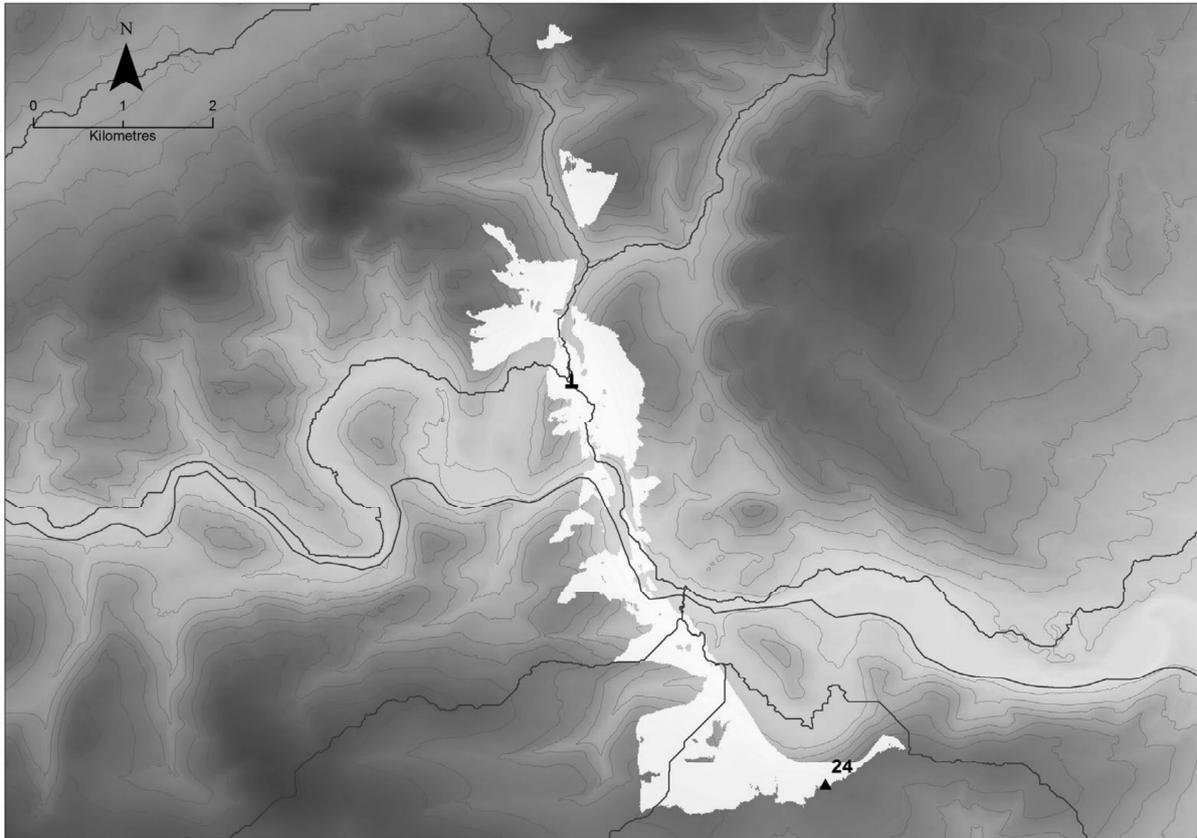


FIG 11

Viewshed from the Pillar of Eliseg and its relation to Cefn Ucha common (location 24). *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

implication derived from this, is that through achieving an oversight of these locations, an intervisible network of lookout points emerges. These sites may also have hosted beacons, controlling the area in terms of the surveillance of the frontier, and the principal routes of access into British territory through the interior of the Vale of Llangollen and the Nant Eglwyseg, and the Clwydian Range.

Bwlch yr Oernant to the north, and Cefn Ucha common to the south, were key in this regard. For the latter, just a short distance to the west of point 24 on Cefn Ucha common, a short dyke, Clawdd Collen, was identified as a possible early medieval earthwork.<sup>57</sup> The location of this undated dyke could be related to this postulated strategic position, maybe monitoring or protecting this area as an important point of visual access and control to the Vale.

Another point of relevance in terms of visibility is the location of Castell Dinas Brân (Fig 12). This striking hill commands a visually dominant position over the area around the historic church of Llangollen and almost all the routes along the Dee from Offa's Dyke and Wat's Dyke to the east, to Berwyn Mountain to the south-west: areas postulated as territories of Powys during the 8th and 9th centuries. In addition, all the locations that have direct visual access to the Pillar also have visual access to Castell Dinas Brân. As with the Pillar, this steep

<sup>57</sup> Hankinson 2002; Silvester and Hankinson 2002.

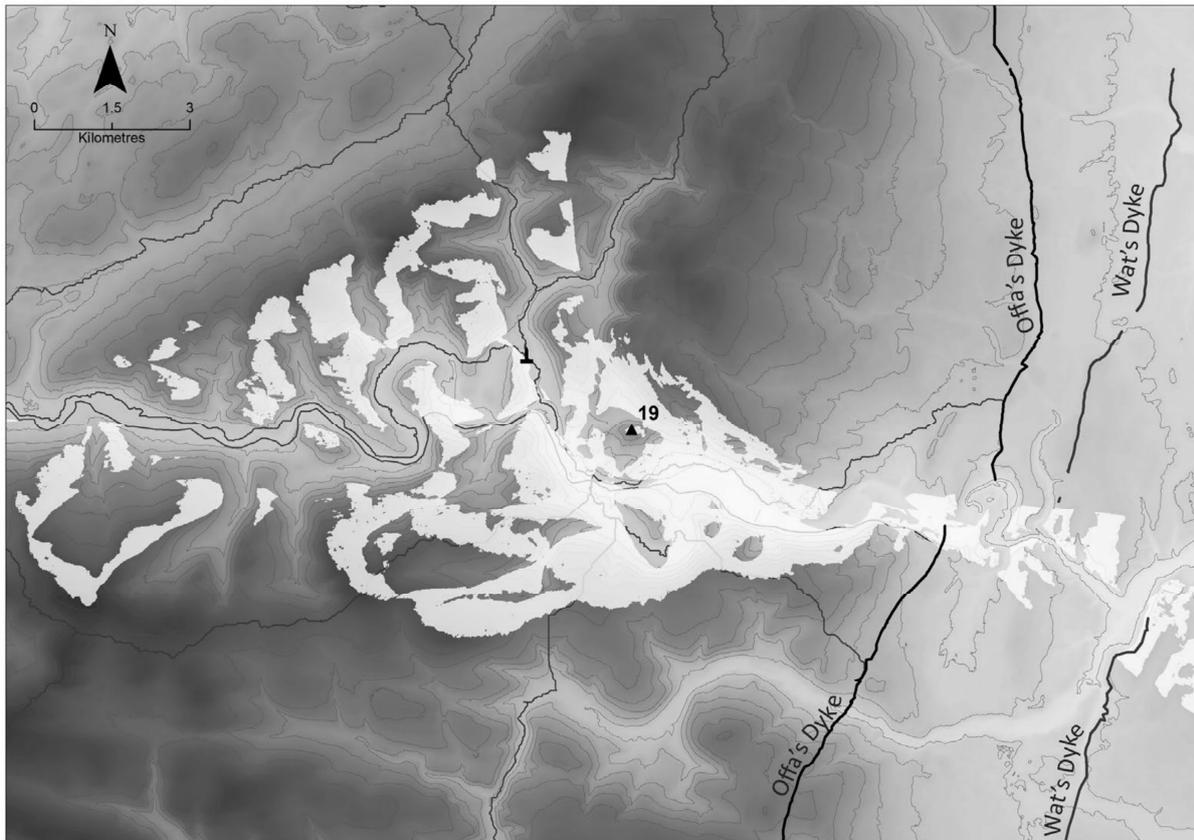


FIG 12  
Viewshed from Castell Dinas Brân (location 19). *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

hill also holds a direct visual connection with Cefn Ucha common. Therefore, while Castell Dinas Brân is not intervisible with the Pillar of Eliseg, one cannot approach the Pillar from the east or south without being observed from Castell Dinas Brân, or from the north and the south without being observed from Cefn Ucha common.

Analysing the visibility from the Llantysilio Mountain and Cyrn-y-Brain, it can be observed that the highest points on these mountains do not have direct visual access to the Pillar (Fig 13). Nevertheless, they hold intervisibility with the great majority of other higher locations, including Dinas Brân and the prehistoric hillforts located in the Clwydian Range. In addition, the natural corridors north of the Llantysilio Mountain and the one leading to the Clwydian Valley can be also entirely dominated from many of these locations.

In assessing visibility toward the dykes, the analysis revealed that while several transects of Offa's Dyke can be observed from a small number of key points in the surrounding mountains, Wat's Dyke can be seen from even fewer locations since it is located further east, away from the higher ground. From a total length of 20.591 km, 63.81% (13.140 km) of the line of Offa's Dyke is visible from the different peaks at Eglwyseg Mountain and from the hills to the south of the Vale of Llangollen. The transect of the dyke just in front of the Eglwyseg Mountain presents itself as particularly high in terms of visibility. Only a few lookout points would have been needed to visually dominate almost its entire length (locations 17, 22, 24 and 25) (Fig 14).

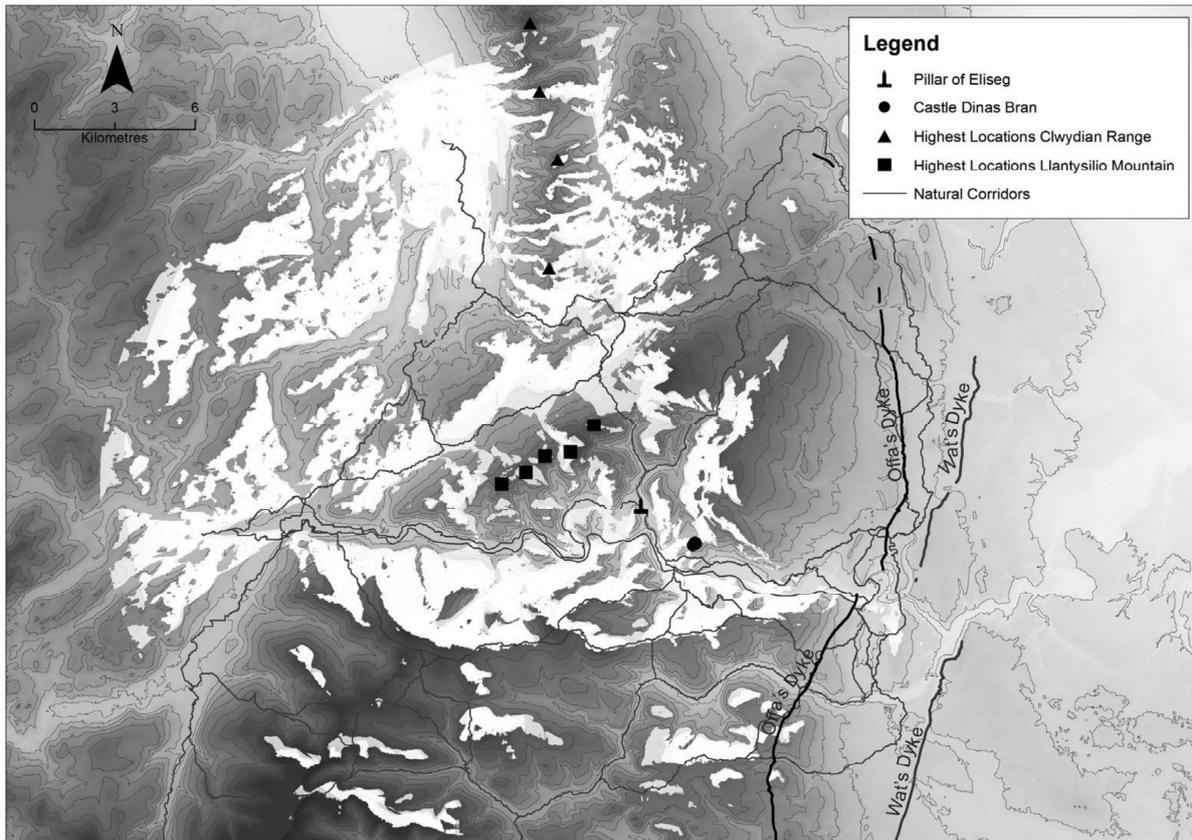


FIG 13

Viewshed from the highest locations at the Llantysilio Mountain. *Base map* © Crown Copyright/database right 2016. *An Ordnance Survey/Edina supplied service.*

The case of Wat's Dyke is even clearer. This 62 km long linear earthwork stretching from Basingwerk on the Dee Estuary south to Maesbury in Shropshire is still omitted from discussions of the Pillar of Eliseg, with emphasis instead placed on connections with Offa's Dyke.<sup>58</sup> Yet, thanks to the excavations at Gobowen, it is now demonstrable that the dyke might be broadly contemporary to the raising of the Pillar of Eliseg, at a time when Offa's Dyke was long established and perhaps already abandoned. It is likely to have been constructed by one of Offa's longer-lasting Mercian royal successors, perhaps Coenwulf, Wiglaf or Beorhtwulf, to combat either the threat posed by Powys and/or the rising power of their western rivals in Gwynedd.<sup>59</sup> Equally significant, Wat's Dyke, not Offa's Dyke, had a more enduring significance as a frontier up to Domesday, as revealed by the distribution of hidated manors east of its course, versus unhidated manors to the west of the dyke, and in addition a distinct distribution of English and Welsh place names which seem to respect the boundary.<sup>60</sup> An outstanding 92.18% (16.550 km) of the length postulated for this dyke (17.952 km) is visible from the calculated points. In fact, in this case, only two observer points (locations 22 and 26) would be needed to observe the full 92.18% of the dyke, and therefore, to visually

<sup>58</sup> Charles-Edwards 2013, 414–24; Hill 2000, 202–3; Worthington 1997; Ray and Bapty 2016, 270–72.

<sup>59</sup> Hayes and Malim 2008, 173.

<sup>60</sup> Worthington 1997; Swallow 2016.

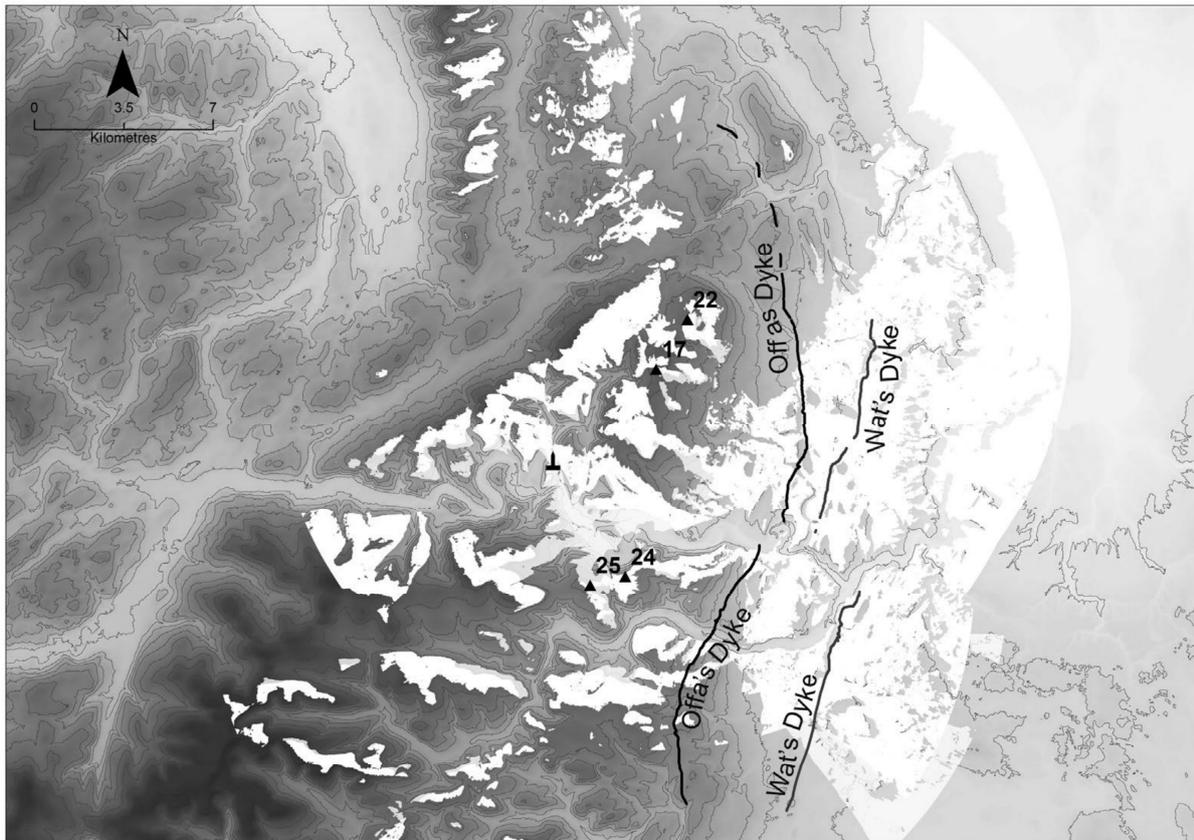


FIG 14

Only the four locations shown here are necessary to visually control up to 63% of Offa's Dyke. *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

control the movement of people and their animals along the principal routes to the east of the Eglwyseg Mountain (Fig 15).

A very interesting contrast is apparent when the views from the highest points in the mountains close to the frontier are compared with the actual visibility from the dykes themselves. One might expect that visibility from the highest points along the Eglwyseg Mountain would not only cover a wider area of the landscape, but also visually dominate far more of the natural corridors. Nevertheless, although the visibility from the highest points along the frontier (eg Eglwyseg Mountain), covers a larger area including the top of Berwyn, Llantysilio and Clwydian Range, the visibility calculated from Offa's Dyke covers areas that these points do not reach, including the east foothills of Eglwyseg Mountain and a large portion of the entrance into the Llangollen Valley (Fig 16). Moreover, from Offa's Dyke, it is possible to see some of the summits in Berwyn, Llantysilio, Hope Mountain and even small parts of the Clwydian Range. The visibility from the far end of Offa's Dyke near Treuddyn, would have covered almost all of Wrexham, the Dee basin up to Chester and parts of Buckley. In the case of Wat's Dyke, the visibility from the monument is also outstanding, covering the entrance into the Vale of Llangollen and some of the summits of its hills south to the Dee (Fig 17). Furthermore, the view from Offa's Dyke covers a larger length (130.321 km) of the natural corridors than expected, and it is almost the same length covered by the viewshed

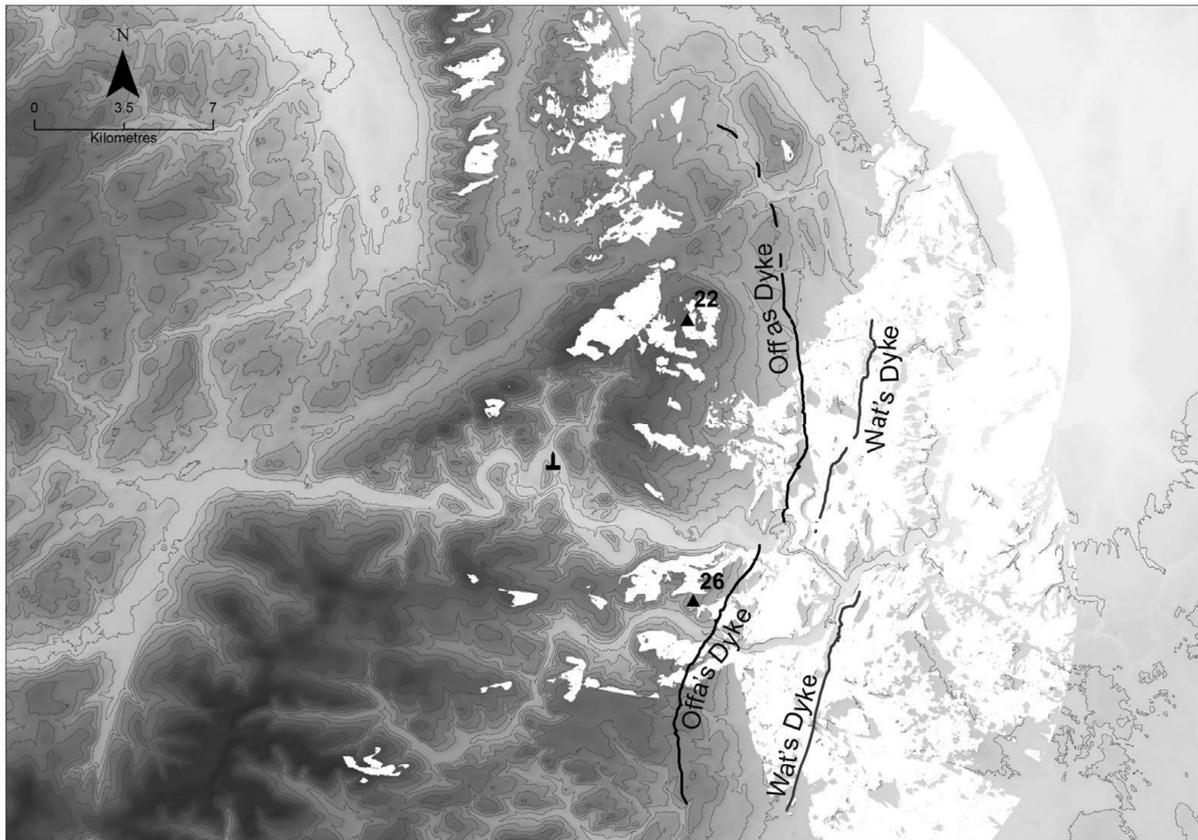


FIG 15

The two hypothetical locations necessary to visually control movement along 92% of the known route of Wat's Dyke. *Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.*

from the highest locations at Eglwyseg Mountain (146.948 km). In the case of the view from Wat's Dyke, the length of corridors covered (93.52 km) does not fall far from these measurements. This prompts questions over assumptions regarding the functions and roles of the dykes and their relationship to each other.<sup>61</sup> For the purpose of the discussion here, however, the point to be made is that those wishing to control access to the Pillar of Eliseg in terms of both contest and collaboration with populations close to, and east of the dykes, could do so relatively easily. In short, the Pillar of Eliseg was a secluded location, but it was central to routes and readily protected and controlled in terms of postulated lookout points.

## Discussion

Due to the topographical configuration of this terrain, the Vale of Llangollen can be identified as the most direct route of communication in an E/W axis from the Cheshire Plain to the Welsh uplands, but it also constituted a socio-political and religious hub. This natural corridor leads to a crossroads after Corwen, where three other main routes can be taken further west, north, or to the south-west of Wales. In this sense, the Vale was not only of crucial importance for local communications in north-eastern Wales and north-western

<sup>61</sup> Williams and Murrieta-Flores *forthcoming*.

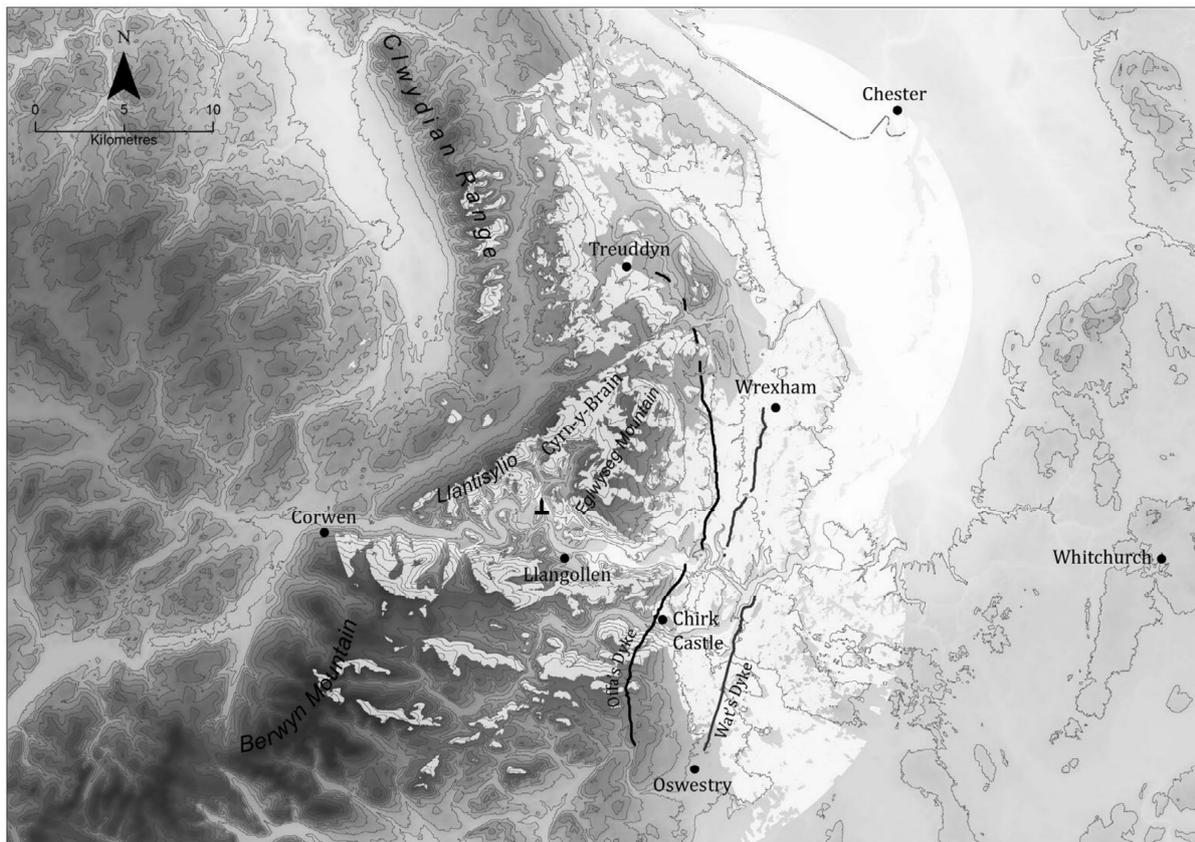


FIG 16  
 Visibility from Offa's Dyke's surviving stretches. Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

England in the early medieval period, but for long-distance overland routes, just as it was in later centuries.<sup>62</sup> This connectivity makes the Vale of Llangollen not only an important route of communication, but also a crucial corridor in terms of military, commercial and political strategy for the region and beyond. Although there are other W/E routes through north-east Wales including the Flintshire coast, the Vale has advantages over these in terms of the range of possible destinations that can be reached both to the east and the west, and also because it is easier to traverse this terrain unobserved.

Therefore, to control the bottleneck created by the Vale of Llangollen either side of the Pillar of Eliseg, meant dominating the most direct and well-connected route inland through north-eastern Wales. In this sense, the military and socio-political control of this land route and corridor would have allowed the access to the main and central corridors of communication within Wales, and therefore, the possibility of managing any commercial or military enterprise both 'from' or 'into' this territory, but also through it. Indeed, as Reynolds and Langlands point out, it is not merely at places of topographical shift and viewshed thresholds where crosses might mark horizons as landmarks, but also principal crossroads acquire crosses in early medieval Britain.<sup>63</sup> In addition, the significance of the Pillar in terms of its setting and inscription is such that it would have been a powerful representation of claims

<sup>62</sup> Compare Reynolds and Langlands 2011.

<sup>63</sup> *Ibid.*, 419–23.

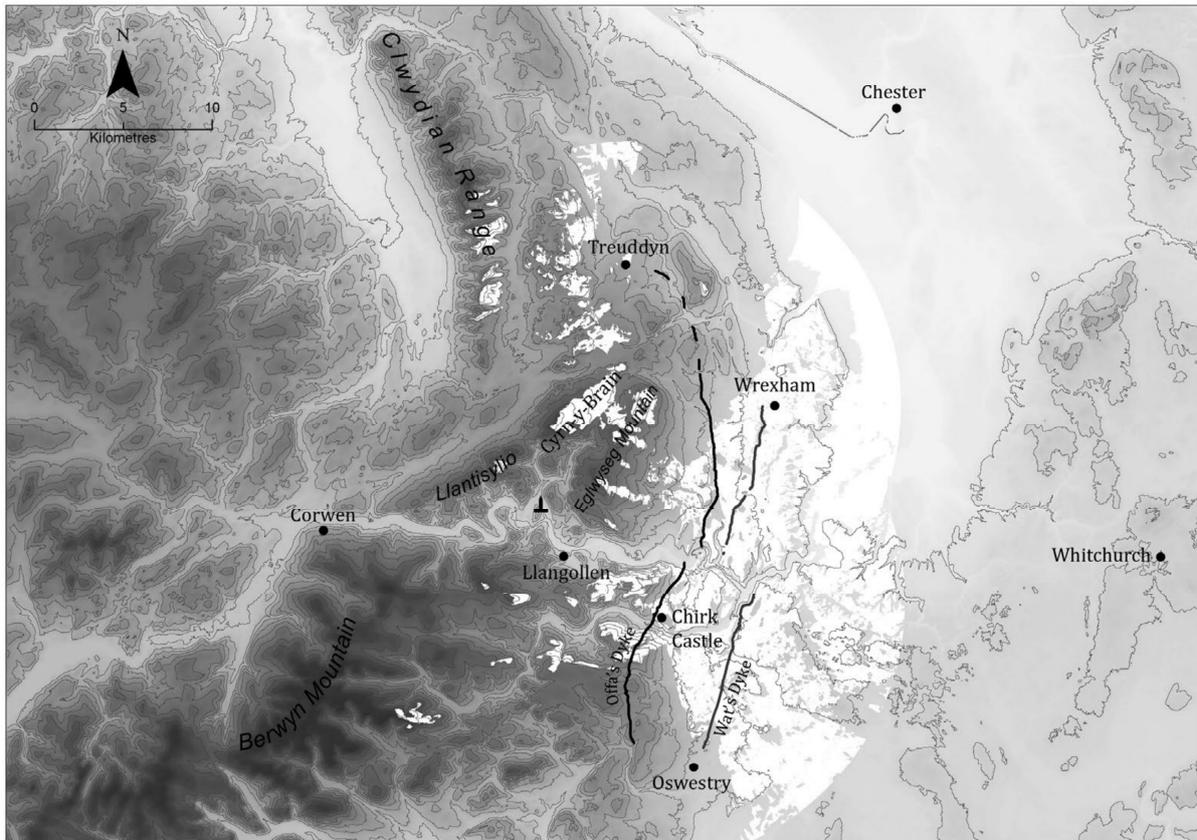


FIG 17

Visibility from surviving stretches of Wat's Dyke. Base map © Crown Copyright/database right 2016. An Ordnance Survey/Edina supplied service.

to authority over this locale, capable of presiding over a range of assemblies and other gatherings, including religious festivals and markets, involving groups traversing into the Vale of Llangollen from all directions. In this sense, the results from the analyses can be interpreted in terms of the different affordances this landscape enables.

#### A PLACE FOR TERRITORIAL DEFENCE

The Pillar's relationship to regional and supra-regional overland and riverine communication routes at a crossroads is one important dimension revealed by this analysis; another is the local topographical situation. Nant Eglwyseg has been shown to play a significant role, due to its topographical configuration. The valley can be thought of as an 'antechamber' west of the Mercian frontier. It was both located on the main W/E axis of movement west of the dykes but also constituted the main natural corridor along a N/S axis offering the only alternative 'in or out' the Vale of Llangollen from the north bank of the Dee. The Eglwyseg valley therefore seems to have been an important passageway in its own right, with the Pillar occupying a central place; it also occupied a strategic position in relation to fluid and contested frontiers with Mercia to the east, and with Gwynedd and Tegeingl to the west and north respectively. As the Least Cost Path analysis indicates, despite being surrounded by high mountains, the Pillar and its immediate environs in the Vale of Llangollen constituted a well-connected location.

There are three qualities to the location that demand further attention. First, this location has a vast expanse of accessible land and important natural resources. The richness of the area is testified to by the abundant summer pastures, fertile land for agriculture, mining resources, woods for hunting and gathering, and plentiful fishing, as well as sacred places (ancestral burial mounds and at least one known holy well), and water sources.<sup>64</sup> Secondly, the Pillar is located in what could be considered a secluded location, but also a place that constituted a gateway to the frontier. Thirdly, by controlling the right locations in this region, as demonstrated by the visibility analysis, it would have been possible to command a network of lookout points and beacons akin to those reconstructed by a combination of place names and archaeology for southern England.<sup>65</sup> Indeed such a system is often postulated as a defensive system for the Mercian dykes in the environs of the Pillar.<sup>66</sup> This surveillance system at the frontier would also have afforded careful control over movement to and from the Pillar. Finally, the monument's proximity to main routes of communication within the area, and its hidden character, makes it both secure and accessible.

As such, it was ideal not only for mustering forces but also as a place superlative for territorial defence, very difficult to approach unseen and thus providing a base for mobile forces or the withdrawal of non-combatants. In this sense, and in terms of military strategy, it would have been possible to establish a large camp in this place, which has several advantages in comparison with the surrounding landscape. For the same reasons, it would have been able to sustain seasonal assemblies exploiting the natural resources available on hand, which might have included deer, boar and fish.<sup>67</sup> The cross at such a location not only marked and served as a performative and mnemonic locus for such gatherings, but could perhaps have also demarcated this as a sanctuary where groups might meet unhindered.

Surveillance of the frontier was obviously not only the concern of those on the British side of the dykes, but we emphasise this to avoid taking a purely Mercian perspective.<sup>68</sup> The general consensus of modern research regarding Offa's and Wat's dykes is that while their primary function was to control movement and provide protection against raiding along the frontier, they were also intended to be 'performative' and visually impress those approaching from the west, as well as to surveil land to the west.<sup>69</sup> Indeed, they might have been especially monumental, both in terms of their build and incorporation of prominent natural features, to 'oppose' locales of British power, including the Vale of Llangollen.<sup>70</sup> The topographic effect of Offa's Dyke, is demonstrated by our LCP analysis, the results of which show how routes of communication are affected by it. Natural corridors coming from the Welsh mountains, and leading to the dyke, tend to follow its contour. The dyke may have also channelled communications toward possible regulated gaps, as suggested by some of the corridors, which cross the dyke in historically interesting places such as Chirk Castle and Pen-y-Gardden fort (close to Ruabon).<sup>71</sup> In fact, adding Wat's Dyke to the equation, shows that routes of communications tend to funnel between the dykes. This demonstrates what

<sup>64</sup> Clwyd-Powys Archaeological Trust 2015b.

<sup>65</sup> Baker and Brookes 2015b.

<sup>66</sup> Hill and Worthington 2003, 99.

<sup>67</sup> Simpson 1853, 57, 66, 74.

<sup>68</sup> Cf Ray and Bapty 2016, 122–63.

<sup>69</sup> Brookes 2013, 44; Ray and Bapty 2016, 156–63, 228–51; 350–64.

<sup>70</sup> Ray and Bapty 2016, 194–98; 275–83.

<sup>71</sup> While admitting the challenges of confirming the locations of gateways through Offa's Dyke, Ray and Bapty (2016, 228–51) propose convincing potential instances.

others have speculated, that the dykes probably had the function of controlling movement both across and along the frontier they constituted, defended and surveilled.<sup>72</sup>

It has been argued that these linear earthworks served primarily to dissuade or at least impede movement across the border.<sup>73</sup> This idea has been derived from the fact that archaeological investigations have failed so far to identify watchtowers or strongholds along the dykes.<sup>74</sup> Nevertheless, Ray and Bapty reassert arguments for the careful and strategic positioning of the dykes, as well as variations in their build, in relation to visibility. From the analyses, it can be concluded that the visibility from the dykes takes in a larger area than expected. From the dykes, it was possible to visually control at least part of the entrance to the Vale of Llangollen and the entire foothills of the Eglwyseg and Ruabon Mountains and as a consequence dominate access to and from Welsh territory. Additional visual control was, however, also possible of vast sections of the routes of communication to the east, as well as some parts of the routes around Vivod Mountain. From a British perspective, the visibility analysis indicates that the visual control of the dykes (from the west) was feasible from the Eglwyseg Mountain, it also shows that the visual surveillance of the frontier might have worked both ways. Therefore, our analysis demonstrates that watchtowers were in fact unnecessary from a Mercian perspective, as visibility from the dykes themselves is expansive, even from the heights recorded from the surviving monuments today. Although there has been controversy over whether the frontier was uniformly established and sustained, and if so how guarding it might have operated,<sup>75</sup> Frank Noble made the case for the possible presence of 'patrols' in the frontier.<sup>76</sup> In this manner, although the Mercian dykes might have had the function of channelling movement and offering defence from raiding, they might have also played an important role in terms of visual surveillance. Considering that the Welsh side benefitted from mountains as an effective defence and surveillance resource, it is possible that the dykes were built, at least in part, as a counter measure or compensation to facilitate the visual control of the frontier.

#### A PLACE OF SYMBOLIC AND POLITICAL DEFINITION

The importance of the natural corridor of the Eglwyseg valley is further emphasised by its ancestral landscape. The location of the Pillar of Eliseg constitutes a point of interest from geographical and cultural perspectives. It is of great interest to observe that the least cost paths crossing the valley pass only a few metres away from the Pillar of Eliseg. However, we need to remember that the Pillar was erected on top of a Bronze-Age funerary monument.<sup>77</sup> This would have had both practical and social implications. The relationship between the monument and the pathways can be seen as an earlier association between the Bronze-Age monument and the natural routes of communication through the valley, and emphasises the importance of this corridor from late prehistory. Moreover, due to the unique location of the monument as a central node in the main corridors of the Eglwyseg Valley, the mound could be understood as a possible landscape marker at the crossroads where corridors leading in or out the Vale of Llangollen, to the west, the north-west and the north-east, divided (Fig 5). This means that any observation we could make regarding the properties at a landscape

<sup>72</sup> Malim 2007; Ray and Bapty 2016, Williams and Murrieta-Flores *forthcoming*.

<sup>73</sup> Brookes 2013, 44.

<sup>74</sup> Hill and Worthington 2003, although now also see Ray and Bapty 2016, 244–50.

<sup>75</sup> Insley 2012, 127.

<sup>76</sup> Noble 1983; see also Hill 2000, 182; Ray and Bapty 2016, 78.

<sup>77</sup> Edwards et al *forthcoming*.

scale of the Pillar of Eliseg, are conditioned by its relationship with the Bronze-Age kerbed cairn. In this sense, it is certain that the people that erected the cross on the mound realised the spatial connections of the mound and its broader landscape. In fact, it seems likely that they exploited this connection. As noticed by Edwards, the use of the verb *recitare* on the inscription in the cross, indicates that it was intended to read out loud, and this may also suggest that early medieval populations may have taken advantage of the potential of this site as a place of gathering.<sup>78</sup> As explained earlier, this place was capable of sustaining large groups in terms of resources and offered a secluded scene that operated as a natural amphitheatre. In the context of this landscape, reading the inscription on the cross aloud, performing ceremonies or even a mass, may have added power to the political and symbolic statement already made by the actual monument. The nature of the inscription, looking to declare not only the sovereignty of Concenn's lineage and the rights of his ancestry, but also to commemorate the defeat of their dominant neighbours, must be interpreted as a bold and purposeful exercise by the rulers of Powys. As Edwards has suggested, the emphasis on the origins, genealogy, and history of Concenn's family, as well as the wording of the inscription, may also suggest the use of the monument in royal inauguration ceremonies.<sup>79</sup>

#### A PLACE FOR SOCIAL INTERACTION

Other equally powerful reasons may have led to the establishment of such an important monument in the Eglwyseg valley. The Pillar is only a few kilometres away from Offa's Dyke and its successor, Wat's Dyke, and from a principal avenue of communication through the Mercian frontier. Therefore, the Pillar needs to be considered *within* the frontier between disparate Welsh territories and Mercia. Its centrality in terms of the routes of communication, visual properties and geographic location, make this place ideal as a site to gather for trade and exchange and informal meetings as well as legal assemblies.<sup>80</sup> It would have provided for a large camp and is situated at the greatest point of connectivity, with access to all key routes of communication north to the Dee. Its direct visual access to Cefn Ucha common (the point with the highest visual index on the cumulative viewshed analysis), which in turn, visually controls not only the entrance to the Vale of Llangollen from the English side, but also all the highest points in the surrounding mountains, would have made communications with the location easy, enabling its protection. In this sense, the area of the Pillar may have served as the antechamber into either British or Anglo-Saxon territories, where parties gathering either for political, social, or commercial purposes may have found a place to meet in a contained, well-connected and controlled environment. Interactions in the frontier at the time need not always have been hostile.

An example of this kind of interaction, although later in date, can be found in the *Ordinance of the Dunsate*, a 10th- or 11th-century document that records the procedure to regulate contact between the English and the Welsh living on either side of an unnamed river.<sup>81</sup> Although the exact location to which relates is uncertain, it is generally accepted that the document makes reference to the River Wye around the Welsh area of Archenfield, southwest of Hereford.<sup>82</sup> In it, regulations and punishments are established to deal, for

<sup>78</sup> Edwards 2013a, 104.

<sup>79</sup> Ibid, 104, 328.

<sup>80</sup> Baker and Brookes 2015b.

<sup>81</sup> Charles-Edwards 2013, 422; Gelling 1992, 113–14; Hill and Worthington 2003, 46, 173–80; Molyneux 2011, 249; Ray and Bapty 2016, 266–67.

<sup>82</sup> Gelling 1992, 112–18; Molyneux 2011, 251.

instance, with disputes regarding cattle along the frontier, and it also stipulates that anyone crossing to the other side of the river should be accompanied by an appointed person from the land that she/he was entering who would take responsibility for supervising the foreigner. The document suggests that territories within the frontier were to some extent guarded, and strategic points in the landscape were crucial in terms of defence and the control of traffic and communications along the frontier. Most documents surviving from the same period dealing with both ‘sides’, make reference to raids and battles, and it is obvious that this document was drafted to manage and avoid conflict no doubt based on prior experience. Despite the uncertainty of both the location and period of the Ordinance, it also testifies that cordial relationships could exist, with reference to people crossing the frontier and the implication that both groups might have engaged in trading activities across the frontier.<sup>83</sup> This is also supported by archaeological evidence for imported English metalwork, pottery and coins in Wales, as well as by few documents. The *Vita Sancti Gundleii* refers to an English merchant at the River Usk, and supports the idea that cross-border trading was more common than usually thought.<sup>84</sup> These documents do not relate to the Llangollen area, but it is not difficult to imagine that places like the Eglwyseg Valley may have served as ‘secure’ locations where meetings from both parties could take place. The Pillar, serving as a Christian cross, might have functioned not only as a marker and political statement, but also as a symbol of prestige and identity, with which all those gathering there might identify.

#### AN ALTERNATIVE HYPOTHESIS FOR THE PILLAR OF ELISEG

So far we have put forward a range of ideas regarding the different affordances of this landscape which might have inspired this choice of location for the erection of the Pillar of Eliseg. All our assumptions, in many ways, are predicated on the Pillar being a monument raised by Concenn to honour his dynasty in a landscape mainly under British control, at least when this part of Wales was not clearly under Mercian overlordship. However, this view conflates the raising of the monument with the inscription, back-projects modern conceptions of what constitutes ‘Wales’, and does not entertain that those areas immediately to the west of the linear earthworks of Offa’s and Wat’s dykes as contested lands, under persistent yet different intensities of Mercian domination and influence from the mid-7th century onwards. As Ray and Bapty have recently proposed<sup>85</sup> and Charles-Edwards has also argued, the recovery of Powys as recorded on the Pillar, ‘...may be compared with other periods when Mercian kings displaced local English dynasties’, and that, ‘Similar incidents were to occur in the 9th century, when the Mercian overlordship over much of Wales can hardly be denied.’<sup>86</sup> Contrary to Fox’s idea of Offa’s Dyke as an agreed frontier, successive scholars have proposed that this earthwork, and Wat’s Dyke its proposed successor/supplement, defined a frontier zone both to their west and their east.<sup>87</sup> The political weakness of this area (Powys) after the first half of the 9th century is signalled by the absence of a systematic presence of works of sculpture, indicative perhaps of an absence of sustained patronage. Indeed some parallels in the region indicate increasing influence or power from a Mercian presence.<sup>88</sup>

<sup>83</sup> Molyneux 2011, 269.

<sup>84</sup> Besly 2006, 702; Redknap 2007; Molyneux 2011, 2072.

<sup>85</sup> Ray and Bapty 2016, 344–46.

<sup>86</sup> Charles-Edwards 2013, 426.

<sup>87</sup> Ray and Bapty 2016, 254–97.

<sup>88</sup> Edwards 2013a, 114.

While acknowledging the importance of the Vale of Llangollen as one of the main gateways across the Mercian frontier, in light of these factors it is reasonable to contend that the Mercians may have actively looked to control this passageway and lands west of the dykes. The narrative on the inscription of the Pillar referring to the triumph of Elise, the campaigns of Coenwulf against Powys in 822, Ecgbert of Wessex in 828, the later invasions of Wales in 853, as well as the actual act by Concenn ordering such inscription, all underscore the area as a highly contested zone that may have been in Mercian control, domination, or at least under sustained surveillance.<sup>89</sup>

The Pillar has been regarded as a unique monument by Welsh standards, as there is no other monument in Wales with the same characteristics, namely, a free-standing Christian cross with a round shaft, placed on the top of an ancient mound. Although some comparisons between the Pillar and examples of Anglo-Saxon crosses can be made, particularly the round-shaft group of the Peak District, these are traditionally dated *later* than the Pillar, to the 10th and 11th centuries AD, although Richard Bailey identifies a wide distribution of possible 8th-/9th-century antecedents.<sup>90</sup> Bearing in mind that the landscape where the Pillar was erected was of great strategic importance, and a contested place which might once have been in an Anglo-Saxon landscape, we need to consider whether the Pillar was initially a Mercian monument raised during a campaign or duration of Mercian direct control of the commote of *Iâl*, perhaps during the 810s/early 820s by Coenwulf, and specifically perhaps when the *Annales Cambriae* cites the English taking the ‘kingdom of Powys into their power’ in 822.<sup>91</sup> During the late 820s, when Mercian defeat by the West Saxons at *Ellendun* led to a retrenchment of Mercian power, is one plausible context in which Concenn as a new ruler recovering land in a fashion akin to his great-grandfather Elise, carved his commemorative inscription on a recently established Mercian monument. This could explain its ‘uniqueness’, not only in terms of the actual monument, but also the explicit textual references and landscape materialisation of the defeat or even defeats of the Mercians narrated by Concenn in the inscription. In a landscape where disputes could take on a monumental expression (including both dykes and crosses) and attest to long-standing and profound conflict, taking control over a monument that might have been created under Mercian dominion would materialise the land’s symbolic and actual reconquest and re-appropriation. The sense of legitimisation that Concenn seems to have sought through the championship of the Powysian genealogy and the celebration of the English defeat by his great-grandfather through the unique Latin text speaks to this interpretation. Therefore, although the death of Concenn in 854/55 in Rome provides a *terminus ante quem* for the inscription, the monument could have been conceived and erected some decades earlier by the Mercians before being swiftly re-purposed.

While the motives and historical context for the Pillar’s carving and inscription might remain hazy, it is fair to question its single-phase creation and recognise that the monument needs to be considered neither ‘English’ or ‘Welsh’, but a dynamic elite monument, possibly created over multiple phases by competing dynasties, and deployed to configure senses of place and the past in relation to multiple audiences. This study certainly suggests that as a landmark and a gathering place, the cross and mound were likely utilised and recognised by both British and Anglo-Saxon groups.

<sup>89</sup> Ingram 1912a, 822, 828; Kirby 2002, 154.

<sup>90</sup> Bailey 2010, 34; Edwards 2013a, 329.

<sup>91</sup> Charles-Edwards 2013, 418–19.

## Conclusion

The study of the landscape of the Pillar is far from concluded. Further work in the immediate environs of the monument is forthcoming,<sup>92</sup> and there is certainly the potential for exploring the nuanced back-projection of later patterns of land tenure and administration, as well as place-name and textual evidence for assembly places in this landscape. The Pillar's location matches the topographical and archaeological criteria of accessibility, distinctiveness and indications of territorial relationships, identified in recent discussions of early medieval assembly sites elsewhere.<sup>93</sup> Our analysis supports Edwards' suggestion that the monument might have been an assembly place possibly used, or designed to be used, in royal inauguration.<sup>94</sup> While complementing the work on the Pillar itself by Project Eliseg, this article has sought to situate the landscape as central to the monument's narrative, arguing that the setting projected and mediated social memory for a wide range of potential groups living in and traversing its environs. Likewise, if it did serve as a gathering place, it may not exclusively have served Powysian royal interests.

Certainly more archaeological investigations are required in this area, not least in the environs of the Pillar itself and its immediate locality around Valle Crucis Abbey, but also sites like the Iron-Age hillfort and later Welsh castle of Castell Dinas Brân. Such work would enrich our understanding of the dynamics of the frontier and the Pillar's potential relationship to its environs, as a place of worship, assembly, military muster, seasonal fairs and other activities. It might be the case that lookout points and an accompanying beacon system, operated by Powysian authorities (or indeed in fluctuating possession between Powys and Mercia), could have managed visually what the Mercians attempted to do with linear earthworks, to control and regulate movement in this contested landscape. This might have utilised key pre-existing hillfort sites and/or high points in the environs of the Pillar.<sup>95</sup> In all these regards, despite the martial nature of the commemorative text on the Pillar, we need to think simultaneously about patterns of transhumant farming practices, hunting and markets, as well as musters for war, when considering the potential multi-functional character of the Pillar of Eliseg in its landscape context.

Writing about the early medieval Mercian border with Wales, David Hill argued that there is no evidence in terms of trade and commerce across the frontier, and because it has proved so far that there were probably few gateways in Offa's Dyke, this leaves '...the impression that there was little or no traffic across those lines'.<sup>96</sup> However, as demonstrated by the viewsheds from Treuddyn and Hope Mountain, close to the northern end of Offa's Dyke, it is possible to visually control the modern frontier between England and Wales and the corridor of routes running between and along the dykes from the Dee to the Severn. This could mean that, although potentially highly controlled, it is entirely possible that traffic did move along the border, as the events described in the later *Ordinance of the Dunsæte* seem to imply. We do not have any direct surviving material evidence, but we might envisage that agricultural products and food might have been the main sources of exchange.<sup>97</sup> Furthermore, the area of the Pillar, due to its closeness to one of these few gateways, its location in one of

<sup>92</sup> Edwards et al [forthcoming](#).

<sup>93</sup> Baker and Brookes [2015b](#).

<sup>94</sup> Edwards [2009](#), 168–9.

<sup>95</sup> Baker [2011](#); Baker and Brookes [2015a](#), 12–18; Baker and Brookes [2015b](#) for the reuse of hillforts as lookout points in Anglo-Saxon England.

<sup>96</sup> Hill [2001](#), 177.

<sup>97</sup> Cf Malim [2007](#), 27–32.

the main natural corridors, and its protected nature, may have provided one of the places where these interactions could happen. The location was protected visually from all directions and might have worked as a safe gathering point for social and political events, as well as acts of worship.

Appreciation of the early medieval frontier landscape is enhanced by understanding the Pillar of Eliseg as a monument related to routines of movement and strategies of surveillance, as well as a place rooted in the ancient, mythologised past. The relationship between the monument's text and its landscape context was the pivot around which the monument may have been intended to forge identities and social memories.

## Acknowledgements

We are grateful to the HER of Clwyd-Powys Archaeological Trust for supplying details of archaeological sites in the vicinity of the Pillar of Eliseg. We would like to thank Rhiannon Comeau, Nancy Edwards, Dai Morgan Evans, Tim Malim, Keith Ray, Marion Shiner, Gary Robinson and Rachel Swallow for guidance and critical comments. All arguments and errors remain the authors' responsibility. The research leading to these results has received funding from the European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) ERC grant 'The Past in its Place' (agreement no 284085).

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