

# The Origins of Wessex Pilot Project

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## SUMMARY

*This paper presents the results of a pilot project investigating the potential of archaeological sites and finds to reveal how the Gewisse – the progenitors of the West Saxons – emerged to form the first post-Roman polity in the upper Thames valley. Digital mapping of Portable Antiquities and other data has revealed new ‘hot spots’ of activity dating to the period between 400 and 750, as well as gaps in the distribution of early Anglo-Saxon material culture that could point to a British presence. The distributions of certain categories of object, such as imports and precious metals, hint at the existence of a distinct ‘riverine’ cultural zone with links to east Kent. New possibilities for understanding the formation of fifth-century identities and calibrating fifth-century chronology are explored, as is the evidence for the emergence in the late sixth to mid seventh century of great hall complexes, notably at Sutton Courtenay and Long Wittenham, for which new evidence is presented. The potential for identifying minor routeways and understanding how these may have conditioned the location of settlement in the region is also considered.*

Wessex – the most successful of all the Anglo-Saxon kingdoms – is popularly assumed to have originated around its later capital, Winchester. In fact, its origins are now generally accepted as lying in the upper Thames valley, with the emergence of a people referred to by Bede as the Gewisse. It was they who, by the late seventh century, had come to be known as the West Saxons.<sup>1</sup> The upper Thames valley also lay at the centre of a fierce territorial struggle between the West Saxons and Mercians from the middle of the seventh century until the ninth. It is fortunate that this frontier region, so important in the early history of England, contains an unsurpassed density and diversity of archaeological sites dating to this period, with new finds regularly coming to light, thanks in large part to the Portable Antiquities Scheme (PAS). The purpose of the present article is to set out the results of a recently completed six-month pilot project that has explored the potential of these sites and finds to shed new light on the origins and development of the first post-Roman polity in the region.

The pilot project focused primarily on the stretch of the Thames between Abingdon and Wallingford, which is characterized by a particular abundance of archaeological sites and has long been regarded as a ‘core’ region for the early Anglo-Saxon period (Fig. 1).<sup>2</sup> It also proved possible, however, to collate some data from across the upper Thames valley as a whole,<sup>3</sup> spanning broadly the period from the late fourth to mid eighth centuries and drawing on a wide range of published and unpublished sources, as outlined below. Although some details remain to be added, not least from unpublished excavations, these data, when mapped (Fig. 2), make clear that the region contains hundreds of find spots from across nearly 250 parishes. It should be recalled, however, that many of these find spots represent the discovery, usually by metal-detector users, of single objects; without further investigation, the precise nature of these

<sup>1</sup> J. Blair, *Anglo-Saxon Oxfordshire* (1994), pp. 35–41.

<sup>2</sup> T. Dickinson, ‘The Anglo-Saxon Burial Sites of the Upper Thames Region and their Bearing on the History of Wessex’, University of Oxford D.Phil. thesis (1976).

<sup>3</sup> This encompassed data from the following regions: Oxfordshire, West Berkshire and Reading, northern Wiltshire (districts of North Wiltshire, Kennet and Swindon), and Gloucestershire east of the River Severn.

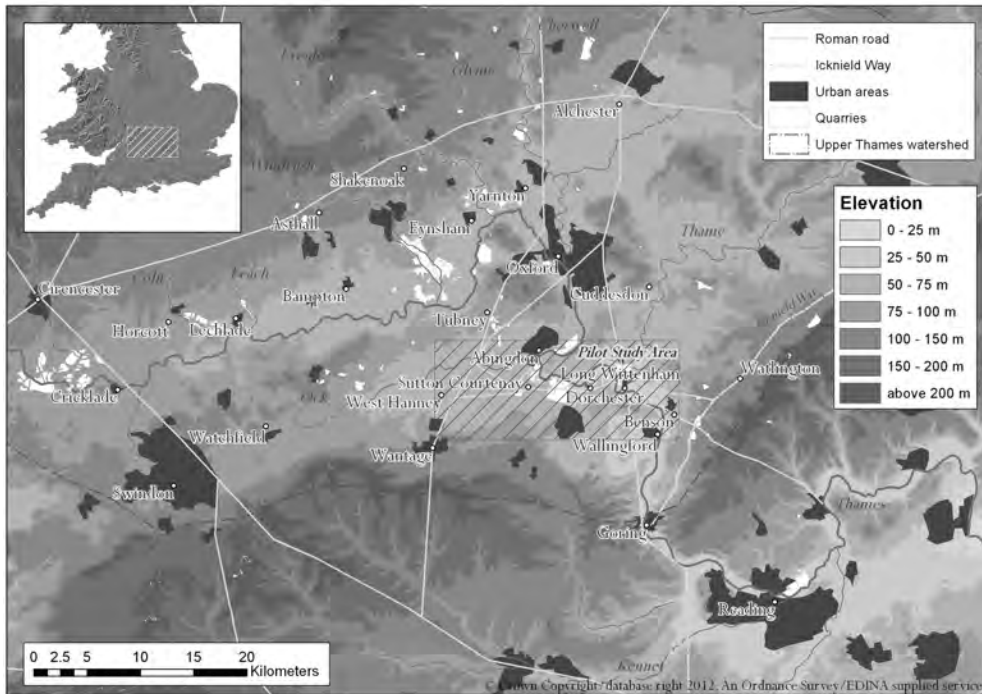


Fig. 1. The upper Thames valley, showing various constraints on data recovery.

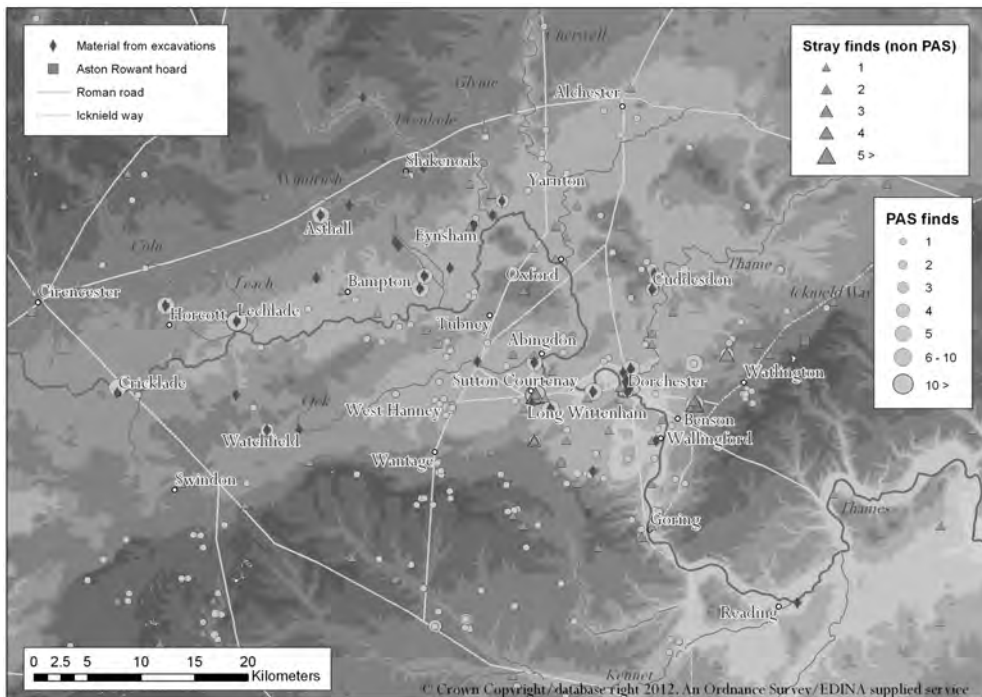


Fig. 2. The distribution of all collected data (c.400-800).

finds – whether they represent settlements, cemeteries, markets, or something else entirely – is impossible to establish.

Even a cursory examination of Figure 2 reveals several ‘hot spots’ of activity. Some of these are unsurprising. It has long been recognized that the confluences of the Thames and its tributaries at Dorchester-on-Thames, Eynsham and Abingdon attracted early Anglo-Saxon settlement.<sup>4</sup> These places also became the sites of important minsters; indeed, in the seventh century, Dorchester famously became the seat of the first bishop of the West Saxons. However, this map also reveals several unexpected concentrations of activity, for example around Watlington, the area stretching westward from Lechlade toward Cricklade, and at West Hanney, where, in 2009, a metal-detectorist found an apparently isolated female grave containing a garnet-inlaid composite disc brooch, manufactured around the middle of the seventh century.<sup>5</sup> The brooch – of a type usually considered to be Kentish – is strikingly similar to two others found in a poorly recorded cemetery at Milton, just south of Abingdon.<sup>6</sup> This recent find thus links West Hanney to a string of high-status seventh-century communities along the upper Thames and Ock valleys, not only at Milton but also at Dorchester-on-Thames, the royal estate centre at Benson, and two undocumented centres at Long Wittenham and Sutton Courtenay, which are discussed in greater detail below.

Newly identified concentrations of finds such as those just mentioned require close examination, but it is already clear that the map shown in Figure 2 will re-shape our understanding of the socio-political geography of the upper Thames valley in the early Anglo-Saxon period. The digital data collected during the pilot has been entered into a GIS (Geographic Information System) that will allow the distributions of many different types of object to be subjected to detailed analysis. As set out in the following section, preliminary assessment of this material is already proving to be informative, hinting at the existence of distinctive cultural zones.

## PORTABLE ANTIQUITIES AND OTHER FINDS IN THE UPPER THAMES VALLEY

*John Naylor*

In addition to examining the pilot project area, an attempt was made to assess this perceived ‘core’ against the broader evidence of the upper Thames valley as a whole. Such an analysis is now possible thanks to the number of objects being recorded by the PAS and Corpus of Early Medieval Coin Finds (EMC) in the region.<sup>7</sup> Using these and other data (see below), it was possible to examine the broader region to identify new sites or concentrations of activity, as well as wider patterning which we hope in future to subject to more detailed analysis.

Owing to the constraints of the pilot survey, the data collection was restricted to key sources most likely to help answer specific questions. All of the available material of late fourth- to eighth-century date was downloaded from PAS and EMC, and all other metal-detected finds known to the authors (either through personal contact or from published sources) were listed to gain as complete a picture of metal-detected material as possible. In addition, the relevant

<sup>4</sup> S.C. Hawkes, ‘The Early Saxon Period’, in G. Briggs et al. (eds.), *The Archaeology of the Oxford Region* (1986), pp. 64–108.

<sup>5</sup> A. Byard, ‘An Anglo-Saxon Burial from West Hanney, Oxfordshire’, in J. Naylor and H. Geake (eds.), ‘Portable Antiquities Scheme’, *Medieval Archaeology*, 55 (2011), pp. 294–6.

<sup>6</sup> R. Avent, *Anglo-Saxon Garnet Inlaid Disc and Composite Brooches*, BAR BS, 11 (1975), nos. 182–3. Scientific analyses currently underway of the raw materials and techniques used in their manufacture should make it possible to establish whether the brooch from Hanney and the two from Milton were made in the same workshop and the likelihood of local, rather than Kentish, production.

<sup>7</sup> PAS can be found at: <http://www.finds.org.uk>, EMC at: <http://www.fitzmuseum.cam.ac.uk/dept/coins/emc/index.html>.

volume of *The Thames Through Time*,<sup>8</sup> local journals and major excavation reports were gleaned for objects in the following categories: late fourth- to mid fifth-century material, all imported metal objects, and all precious metal objects. Objects in the first category are important for an assessment of the late Roman to early Anglo-Saxon transition, those in the latter two to establish whether certain micro-regions or communities had preferential access to precious and prestigious items, notably those indicative of links with Kent and the Frankish world.

From these data, a total of 784 objects from 246 parishes was recorded (Fig. 2). While there will inevitably be some omissions from the dataset, we are confident that the vast majority of relevant finds in these categories have been included. Omissions, including those from other sources of data (notably unpublished excavations), will be rectified as part of a full project.

### *Assessing the Data*

Before examining the dataset, it is important briefly to consider the nature of the data and what they represent. The wide geographical range of the metal-detected data for the upper Thames valley makes it important to outline the potential constraints on recovery that may have affected its distribution, rather than assume that such a dataset is unbiased and can be easily read. Such an approach was pioneered as part of a project exploring early medieval portable antiquities on a national scale.<sup>9</sup> While some results of that study were as expected – few metal-detected finds came from within urban areas, woodland and areas outside of arable farming – others were more surprising, such as clusters of finds immediately outside of towns, and the link between major modern roads and metal-detector find spots. It was nevertheless demonstrated that, despite the impact of such factors, PAS data still reflected ancient patterns of settlement and communication.

The pattern of PAS finds within the upper Thames study area is, in many ways, consistent with these national findings. There is, for example, a lack of finds from urban areas, while some clusters of finds, such as those around Wantage and West Hanney, are known to be the product of PAS recording at large metal-detecting rallies.<sup>10</sup> Some apparently empty areas in the immediate environs of Oxford, on the other hand, are likely to be at least partly due to the destruction of archaeological deposits by nineteenth- and twentieth-century quarrying (Fig. 1).<sup>11</sup> A thinning of finds noticeable to the west and north-west of Oxford, heading towards the Cotswolds, is no doubt due in part to a lack of detecting in this more remote area, from which few finds of any period are reported. Along the Windrush and Evenlode valleys there is a notable lack of Anglo-Saxon finds, although some cemeteries have been excavated there, for example at Cassington and Asthall.<sup>12</sup> In some areas, a large number of PAS finds have been recorded of which very few date to our period – this is the case between Lechlade, Wantage and Swindon, for example.

The data from non-PAS derived metal-detecting activity follow practically the same pattern

<sup>8</sup> P. Booth et al., *The Thames through Time: The Early Historical Period, AD 1–1000*, Thames Valley Landscapes Monograph, 27 (2007).

<sup>9</sup> J.D. Richards et al., 'Anglo-Saxon Landscape and Economy: Using Portable Antiquities to Study Anglo-Saxon and Viking Age England', *Internet Archaeology*, 25 (2009) [http://intarch.ac.uk/journal/issue25/richards\\_toc.html](http://intarch.ac.uk/journal/issue25/richards_toc.html), especially sections 2 and 3. For recent and more quantitative approaches, see K. Robbins, 'From Past to Present: Understanding the Impact of Sampling Bias on the Distribution of Finds Recorded by the Portable Antiquities Scheme', University of Southampton PhD thesis (2012).

<sup>10</sup> P. Levick and K. Sumnall, 'Metal-Detecting Rallies and Landscape on the Berkshire Downs', in S. Worrell et al. (eds.), *A Decade of Discovery. Proceedings of the Portable Antiquities Scheme Conference 2007*, BAR BS, 520 (2010), pp. 39–46.

<sup>11</sup> See, for example, the rescue excavations undertaken around Cassington in advance of gravel extraction: E.T. Leeds and M. Riley, 'Two Early Saxon Cemeteries at Cassington, Oxon.', *Oxoniensia*, 7 (1942), pp. 61–70.

<sup>12</sup> *Ibid.*; T. Dickinson and G. Speake, 'The Seventh-Century Cremation Burial in Asthall Barrow, Oxfordshire: A Reassessment', in M. Carver (ed.), *The Age of Sutton Hoo: The Seventh Century in North-West Europe* (1992), pp. 95–130.

as the PAS-only material, although EMC data provide some additional evidence for the Cotswolds to the north of the Cirencester to Burford area. The excavated material, especially from early Anglo-Saxon cemeteries,<sup>13</sup> is more widespread, and fills a number of gaps in PAS distributions to the west of Oxford and in the Wantage to Swindon area. There remains, however, very little early/middle Anglo-Saxon evidence between Wantage and Sutton Courtenay, and in the area north of Abingdon heading towards Oxford.

This brief examination of the dataset suggests that the distribution of data collected during the pilot project does broadly reflect early medieval activity, despite the potential biases inherent in using material derived from metal-detecting.

#### *Distributions: Pattern and Potential*

Figure 2 shows the distribution of the Anglo-Saxon data collected for the pilot survey against the Roman road network. This reveals a number of factors not previously discernible. First, the Roman road network can be seen to have remained important, with many finds on or close to a Roman road. The Icknield Way can, furthermore, be seen as a particularly important route, close to which a very large early eighth-century hoard of sceattas was found (Fig. 5).<sup>14</sup> However, away from this route there is relatively little material east of Wallingford, and most of the finds immediately to the north of the town are close to the rivers. An intriguing group of PAS finds can be seen stretching from the south-western side of Abingdon, continuing south of Tubney towards Bampton, the site of a probable Anglo-Saxon minster.<sup>15</sup> This line of finds does not follow the modern road network, and it is possible that it represents a now-lost Anglo-Saxon route. Whether this potential route is an extension of a trackway visible in cropmarks stretching from Dorchester to Sutton Courtenay (see below) remains uncertain in the absence of further work. The greatest concentration of finds is in the Abingdon–Dorchester–Goring area, highlighting the importance of this area within the region, with many routes passing through it.

#### *The Roman to Post-Roman Transition (Late Fourth to Mid Fifth Centuries)*

Besides this general examination of early and middle Anglo-Saxon objects, more targeted investigation was carried out in relation to the development of a post-Roman identity in the region. Two sets of data were collected to assess the transition from ‘Roman’ to ‘Saxon’, the first comprising all known object types likely to have been deposited c.400–450, such as Hawkes and Dunning-type belt sets,<sup>16</sup> and the second being clipped silver siliquae, coins dating from the last phase of Roman occupation in the first half of the fifth century.<sup>17</sup>

Figure 3 shows the distribution of objects likely to date to the first half of the fifth century, including clipped siliquae. The general distribution indicates three areas of moderate clustering. The first is a broad spread of material centering on the Abingdon to Wallingford stretch of the Thames, where a number of very late Roman buckles and belt fittings, mostly from excavations, have been found. These are augmented by several unpublished metal-detector finds of early equal-arm brooches (Nesse type) from Pyrton and Upton.<sup>18</sup> Interestingly, few clipped siliquae have been found in this loop of the river, but a number have been found elsewhere in the study

<sup>13</sup> Booth et al., *Thames through Time*, p. 419.

<sup>14</sup> J.P.C. Kent, ‘The Aston Rowant Treasure Trove’, *Oxoniensia*, 37 (1972), pp. 243–4.

<sup>15</sup> J. Blair, *The Church in Anglo-Saxon Society* (2005), p. 257.

<sup>16</sup> S.C. Hawkes and G.C. Dunning, ‘Soldiers and Settlers in Britain, Fourth to Fifth Century, with a Catalogue of Animal-Ornamented Buckles and Related Belt-Fittings’, *Medieval Archaeology*, 5 (1961), pp. 1–70.

<sup>17</sup> R. Abdy, ‘After Patching: Imported and Recycled Coinage in Fifth- and Sixth-Century Britain’, in B. Cook and G. Williams (eds.), *Coinage and History in the North Sea World. Essays in Honour of Marion Archibald* (2005), pp. 75–98.

<sup>18</sup> Booth et al., *The Thames through Time*, p. 166; P. Booth, ‘A Late Roman Grave Group from the Dyke Hills, Dorchester-on-Thames, Oxfordshire’, *Ashmolean Magazine*, 63 (2012), pp. 13–14; P. Booth et al., ‘Dark Earths in the Dorchester Allotments’, *Medieval Archaeology*, 54 (2010), pp. 414–16; personal communication from Abi Lyons.

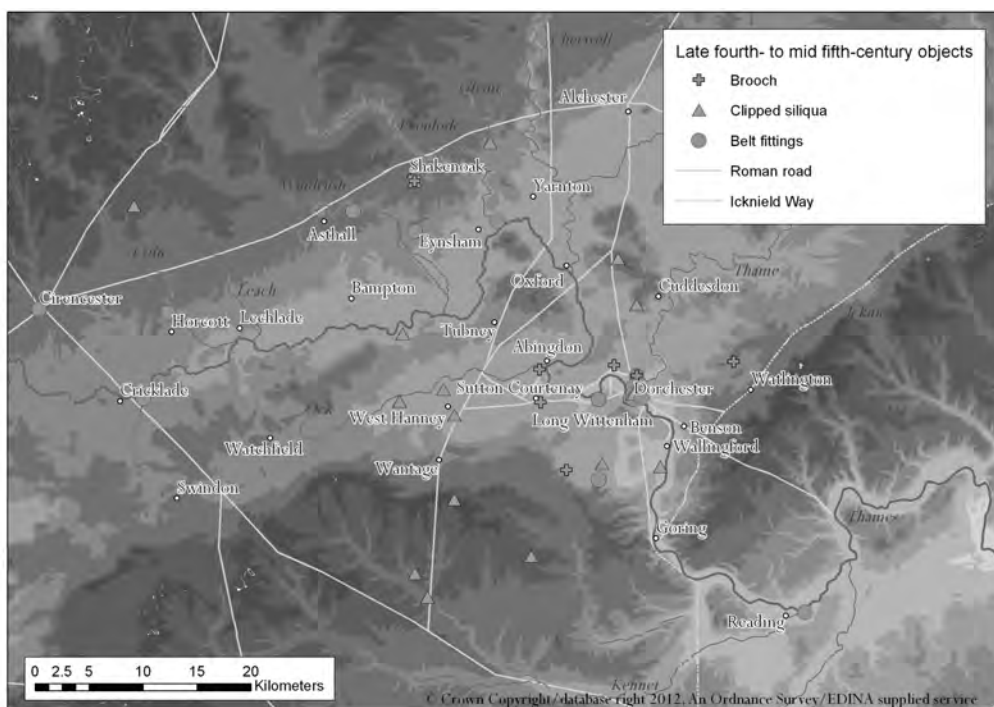


Fig. 3. The distribution of late fourth- to mid fifth-century objects.

area, notably to the north of Wantage. Although the objects and coins appear to have distinct distributions, it remains unclear whether this is related to recovery techniques (metal-detection versus excavation), or reflects some aspect of the material culture of the region in the fifth century, perhaps as used by different cultural groups.

The only other cluster of note is smaller, comprising Hawkes and Dunning-style belt fittings found in burials west of Oxford at Shakenoak, Cassington and Minster Lovell, with the recent addition of another reported to the PAS from South Leigh.<sup>19</sup> Along with this is the metal-detector find of a late Roman silver belt fitting from Cirencester (Roman Corinium) – or more likely its vicinity – paralleled by an example from Kingsholm (Glos.), c.30 km to the north-west, and a crude copper-alloy copy from an Anglo-Saxon grave at Fairford.<sup>20</sup> All of these indicate the continuing importance of Corinium in the fifth century, as also attested by excavation.<sup>21</sup> A single clipped siliqua was also recorded in this area, from Northleach.<sup>22</sup>

#### *Gold and Silver Objects other than Coins*

An overview of the distribution of precious metals in the upper Thames valley was provided by mapping all early and mid Saxon precious metal objects dating to c.400–750 without consideration of type or chronology (Fig. 4). This crude distribution displays several interesting

<sup>19</sup> Booth et al., *The Thames through Time*, p. 166. The South Leigh find is listed on the PAS database as BERK-EB3477.

<sup>20</sup> P. Gentil, 'Cirencester, Glos: Silver Decorated Belt Buckle', *Treasure Annual Report 1998–9*, pp. 22–3.

<sup>21</sup> Booth et al., *The Thames through Time*, p. 88.

<sup>22</sup> PAS database: LANCUM-697453; W. Menghin, *Das Schwert im Frühen Mittelalter* (1983), p. 315.

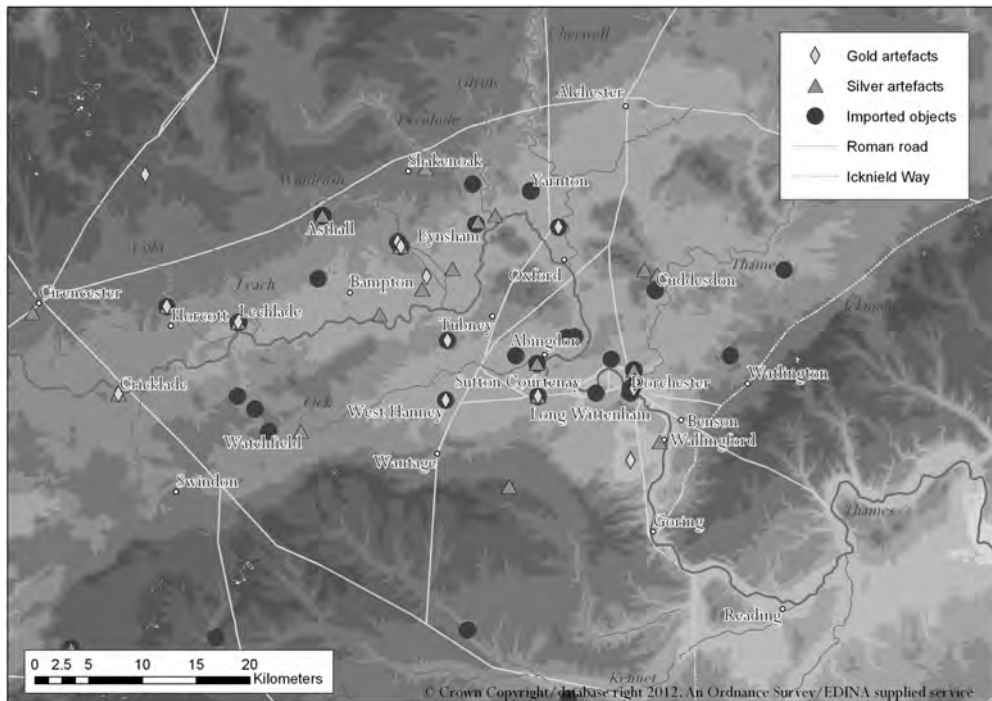


Fig. 4. The distribution of early and mid Saxon precious metal objects and probable imports (excluding coins).

features. First, although the finds are spread across the upper Thames valley, the distribution is heavily concentrated around the rivers, with virtually all finds having been made along the route of the Thames or one of its tributaries. Second, the two main clusters match those of fifth-century objects, namely the areas from Abingdon to Dorchester-on-Thames, and west of Oxford, from around Eynsham to the seventh-century princely barrow burial at Asthall. In addition, a number of richly furnished burials was excavated at Butler's Field, Lechlade and a few kilometres to the west at Fairford.<sup>23</sup> The PAS has also recorded a number of important finds in the Cricklade area including an early seventh-century gold and copper-alloy sword pommel belonging to Menghin's Group E, English finds of which cluster in East Anglia and Kent.<sup>24</sup> Details regarding the find spots from this area are currently being withheld because of concerns over illegal detecting.

The evidence from precious metal objects thus suggests three areas of importance: a tight cluster in the Abingdon/Dorchester area, a more widely spread distribution to the west of Oxford, and a third cluster around Lechlade. The overall distribution suggests that the river was the main entry point into the region for precious objects and that they did not then travel far from it, hinting at some form of riverine cultural zone with preferential access to certain materials.<sup>25</sup>

<sup>23</sup> Booth et al., *The Thames through Time*, p. 88.

<sup>24</sup> PAS database number: WILT-B5EE27.

<sup>25</sup> This is also seen in this period for the coastal zone of eastern England: C. Loveluck and D. Tys, 'Coastal Societies, Exchange and Identity along the Channel and Southern North Sea Shores of Europe, AD 600–1000', *Journal of Maritime Archaeology*, 1 (2006), pp. 140–69.

### *Imports*

Non-local artefacts (Fig. 4) also display a distinctly riverine distribution, with a major cluster of finds again occurring in the Abingdon to Dorchester area, and others spread along the Thames and its tributaries westwards from Oxford to Lechlade and Fairford. Much of the imported material is derived from burials. These finds have been the subject of considerable scholarly attention and serve to highlight the socio-political importance for upper Thames communities of relations with elite groups in east Kent.<sup>26</sup> Kentish or Kentish-style objects are known from Berinsfield, Long Wittenham and Milton in the Dorchester area, and Lechlade, Watchfield, and Fairford to the west.<sup>27</sup> To this can now be added finds from the burial at West Hanney, which included not only the brooch already mentioned, but also fragments of blue vessel glass.<sup>28</sup> In addition, the upper Thames contains one of the major concentrations of Frankish and eastern Mediterranean imports in southern Britain, including finds from the well-known 'princely' burials at Asthall and Cuddesdon, and the new finds from near Cricklade (see above).<sup>29</sup> The links with Kent are also strikingly attested by the distribution of balances in Anglo-Saxon England, which is confined almost entirely to Kent and the upper Thames region and has been argued by Scull to reflect bullion transactions between the two regions during the sixth and early seventh centuries.<sup>30</sup>

The clustering of these finds in the upper Thames is again centered on the Dorchester and Lechlade areas. Importantly, however, imports include not only artefacts derived, or probably derived, from burials, but also mid Saxon settlement finds. These include five sites where Ipswich Ware – manufactured between c.720 and 850 and, when found outside of East Anglia, a probable indicator of high status –<sup>31</sup> has been discovered, with the finds from excavations at Little London, Lechlade attesting to the site's continuing importance even after the cemetery at Butler's Field went out of use.<sup>32</sup> Continental pottery is less common, as would be expected, and consists of a seventh-century Merovingian-type bottle found in the Asthall barrow, and a seventh to ninth-century sherd found at Dorchester, thought to come from the eastern Mediterranean.<sup>33</sup> Quernstones made from Rhenish lava stone, well attested in eastern England,<sup>34</sup> have been found at the settlements at Yarnton and Eynsham Abbey near Oxford, and also at Sherborne House, Lechlade, another indication of this area's connectivity.

The distribution of imported material, while supporting the notion of a riverine cultural zone, is thus also suggestive of two micro-regions within this zone – the Abingdon/Dorchester axis and the area around Lechlade – which appear to display long-term high-status occupation as well as the ability to procure imported and precious materials. The imported objects found

<sup>26</sup> Hawkes, 'The Early Saxon Period', pp. 82–3.

<sup>27</sup> Booth et al., *Thames through Time*, p. 384.

<sup>28</sup> Byard, 'West Hanney'.

<sup>29</sup> Another such cluster occurs in north-west Wiltshire, as recently identified by the 'Beyond the Tribal Hidage' project. We are grateful to Sue Harrington for drawing this to our attention.

<sup>30</sup> C. Scull, 'Scales and Weights in Early Anglo-Saxon England', *Archaeological Journal*, 147 (1990), pp. 183–215.

<sup>31</sup> P. Blinkhorn, *The Ipswich Ware Project. Ceramics, Trade and Society in Middle Saxon England* (2012)

<sup>32</sup> Ipswich Ware is known from Oxford, Eynsham, Yarnton, Black Bourton, Sutton Courtenay and Lechlade, the last being the most westerly find spot of this ceramic: Booth et al., *The Thames through Time*, p. 105 and G. Hey, *Yarnton: Saxon and Medieval Settlement and Landscape. Results of Excavations 1990–96*, Thames Valley Landscapes Monograph, 20 (2004), p. 268. We are grateful to Paul Blinkhorn for bringing the finds from Sutton Courtenay to our attention.

<sup>33</sup> C. Underwood, 'Four Sherds of Imported Pottery from Phase 3d Ditch 3117', in G.D. Keevill, 'Archaeological Investigations in 2001 at the Abbey Church of St. Peter and St. Paul, Dorchester-on-Thames, Oxfordshire', *Oxoniensia*, 68 (2003), pp. 343–4. Ninth-century Badorf Ware was also found here.

<sup>34</sup> J. Parkhouse, 'The Distribution and Exchange of Mayen Lava Quernstones in Early Medieval North-West Europe', in G. de Boe and F. Verhaeghe (eds.), *Exchange and Trade in Medieval Europe: Papers of the Medieval Europe, Brugge 1997 Conference*, vol. 3 (1997), pp. 97–106.



in the Thames valley from Oxford to Asthall are harder to assess as, with the exception of the Asthall barrow, they consist merely of fragments of lava quern.

As already mentioned, interpretations of these imports have tended to emphasize diplomatic relations and intermarriage between communities in the upper Thames valley and Kent.<sup>35</sup> With more recent advances in our understanding of seventh to eighth-century economies, however, and the potential role of free agents, the mechanisms of contact between the two regions may have been more complex and varied than previously thought.<sup>36</sup>

### Coinage

Coins have so far been excluded from the discussion, with the exception of the clipped siliquae, which may have retained a monetary function into the fifth century. Coins, however, represent the single biggest group examined, consisting of over 200 individual finds, the bulk of which belong to the later seventh to mid eighth centuries, a pattern which is typical of most of the country.<sup>37</sup> Their general distribution (Fig. 5) builds on a pattern previously identified by Blair nearly twenty years ago, suggesting entry into the region via the Icknield Way north of the Chilterns, rather than through the Goring Gap.<sup>38</sup>

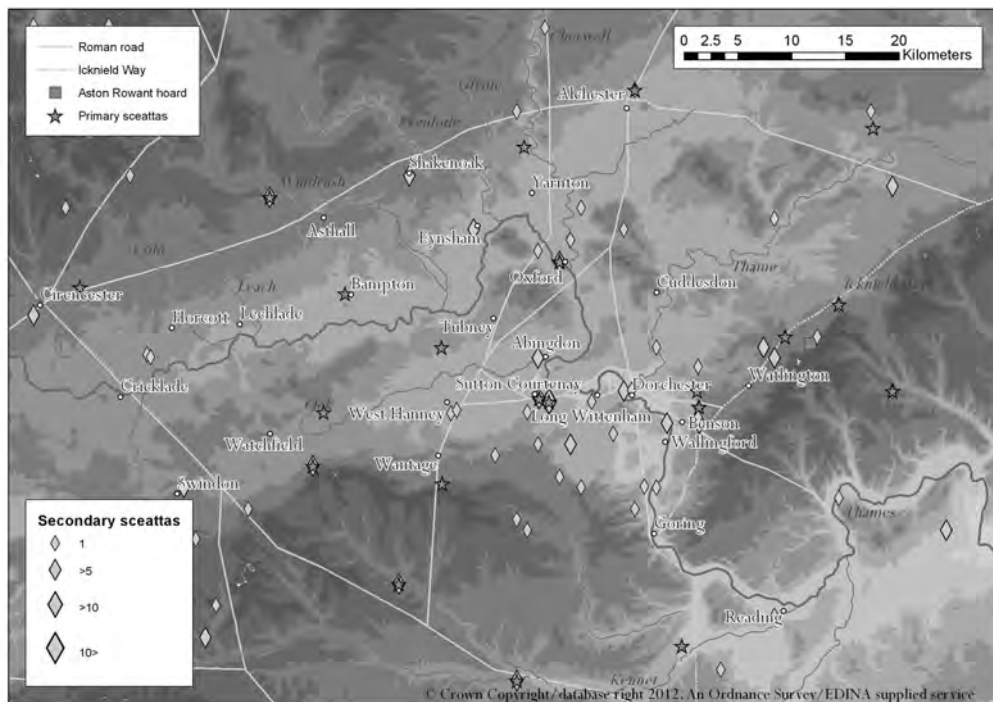


Fig. 5. The distribution of primary and secondary phase sceattas.

<sup>35</sup> Hawkes, 'The Early Anglo-Saxon Period'.

<sup>36</sup> R. Fleming, 'Elites, Boats and Foreigners: Rethinking the Birth of English Towns', *Città e Campagna prima del Mille, Atti delle Settimane di Studio*, 56 (2009), pp. 393–425; J. Naylor, 'Coinage, Trade and the Origins of the English Emporia, c.650–750', in S. Gelichi and R. Hodges (eds.), *From One Sea to Another. Trade Centres in the European and Mediterranean Early Middle Ages* (2013), pp. 237–66.

<sup>37</sup> Richards et al., 'Anglo-Saxon Landscape and Economy', fig. 65.

<sup>38</sup> Blair, *Anglo-Saxon Oxfordshire*, pp. 81–3.

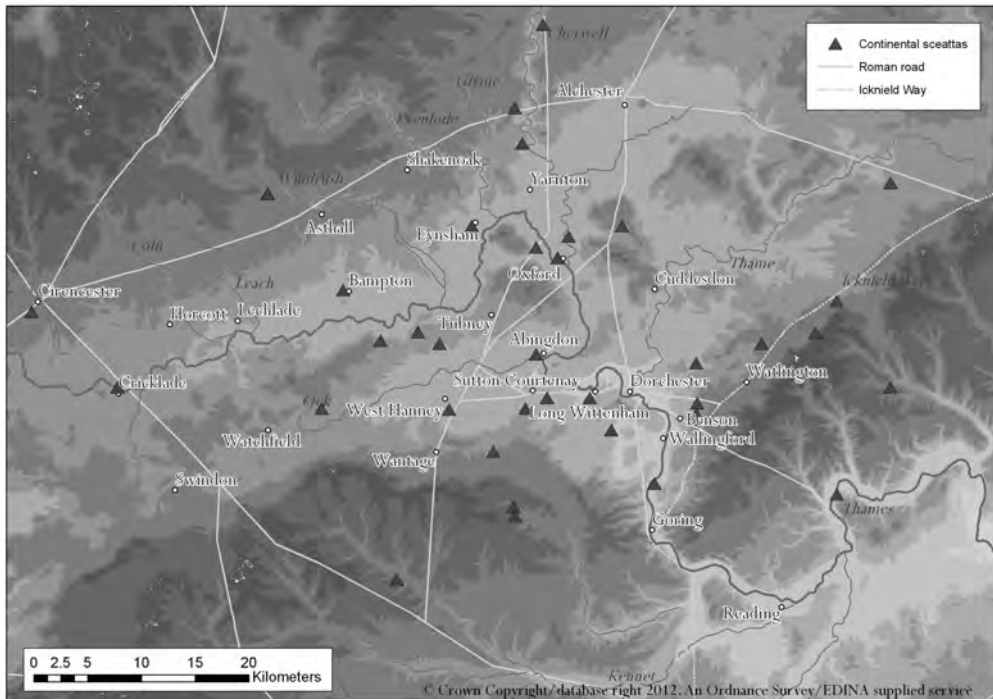


Fig. 6. The distribution of sceattas minted on the Continent.

With numerous new finds, it is now possible to discuss more fully the distribution of coins by phase of production. The primary phase sceattas (c.675–710) follow a predominantly east–west axis along the Icknield Way and the Thames valley. Secondary phase sceattas (c.710–60) are, as would be expected, more plentiful and concentrated more heavily in the Abingdon to Wallingford area, with far fewer found further along the course of the Thames. There are also hints of two further routes, the first being a line of finds leaving the Thames around Oxford and heading north towards the central Midlands. The other lies to the west and runs broadly from south of Swindon to Cirencester and beyond. It is possible that this represents a route running from Hamwic into Mercian territory. The distribution of sceattas minted on the European mainland (Fig. 6) has been taken to indicate the presence of foreign merchants in the upper Thames valley, possibly dealing in wool.<sup>39</sup> The distribution differs little, however, from that of English finds (except in the far west of the study area – Fig. 5) and further work is required to assess whether these did in fact circulate in different ways.

#### *Early to Mid Saxon Continuity*

A final aim of this preliminary assessment of the PAS data was to consider the extent to which certain sites saw continuity of activity from the early to the mid Saxon periods, something not often seen in excavated sites, and a possible indicator of special status. Such ‘continuity’ does not necessarily imply a simple continuation of occupation, but could also include mid Saxon reuse of earlier cemetery sites, which might in turn indicate nodal points within the landscape (see below). The assessment revealed only a relatively small number of parishes showing some

<sup>39</sup> D.M. Metcalf, ‘Monetary Affairs in Mercia in the Time of Æthelbald’, in A. Dornier (ed.), *Mercian Studies* (1977), p. 90.

form of continuity, some of which no doubt relates to settlement continuity, as at Lechlade where the successor to the Sherborne House settlement appears to be located a few hundred metres to the south around Kent Place.<sup>40</sup> Other examples, however, seem to illustrate the reuse, perhaps as meeting places, of early cemeteries or isolated burials, as at West Hanney from which, in addition to the rich seventh-century burial already mentioned, metal-detector finds of mid Saxon sceattas and strap-ends have also been reported. The overall distribution indicates a cluster of parishes showing some form of continuity around the loop in the Thames from Abingdon to Goring.

## TWO CHRONOLOGICAL CASE STUDIES

### *H. Hamerow*

In addition to analyzing the distributions of different types of object, the pilot project undertook new analyses of old excavations complemented by new fieldwork in order to explore the potential of the upper Thames region to shed light on two particular 'time horizons' widely recognized as marking important socio-political watersheds: the fifth century and the period from c.570 to 650. The region has a number of key sites dating to these periods, which saw, respectively, the 'Roman' to 'Saxon' transition and the emergence of the first ruling families in the region. Yet information regarding these sites is often fragmentary or unpublished and, as a result, fundamental questions regarding the nature of these places remain unanswered. One aim of the pilot project, therefore, was to develop fieldwork strategies aimed at addressing specific questions regarding these important sites.

### *The Fifth Century*

The fate of the Britons in the fifth century assumes an added dimension in the upper Thames valley, since written sources indicate that it saw significant levels of British survival. Indeed, the names of several of the 'founding fathers' of the Gewisse point to British origins, and the conclusion that at least some Britons were incorporated into Anglo-Saxon kinship networks seems inescapable.<sup>41</sup> As Barbara Yorke has observed, 'the claim that the West Saxon royal house was descended from Cerdic (Caradoc) seems to embody a willingness to claim descent from a former British hero and so acknowledge a British contribution to West Saxon identity'.<sup>42</sup> A key question to be explored is whether some of the late Romano-British aristocracy survived by reinventing themselves as members of the Gewisse, much as some members of the late Iron-Age elite appear to have survived by 'becoming Roman' several centuries earlier, not simply by assimilating, but through interactions between indigenes and immigrants such as marriage and fostering.<sup>43</sup>

One place that almost certainly provided a setting for such interactions is the small Roman walled town of Dorchester-on-Thames. The upper Thames valley was something of a backwater in the Roman period, and lacked any major centres.<sup>44</sup> Yet Dorchester has produced evidence that it served as a centre of authority in the final decades of Roman rule and beyond. In 1874,

<sup>40</sup> D. Kenyon and M. Collard, 'Anglo-Saxon and Medieval Remains at Kent Place, Lechlade: Excavations in 2000', *Transactions of the Bristol and Gloucestershire Archaeology Society*, 122 (2004), pp. 117–26.

<sup>41</sup> B. Yorke, *Kings and Kingdoms of Early Anglo-Saxon England* (1990), pp. 138–9.

<sup>42</sup> B. Yorke, 'Anglo-Saxon Origin Legends', in J. Barrow and A. Wareham (eds.), *Myth, Rulership, Church and Charters: Essays in Honour of Nicholas Brooks* (2008), p. 23.

<sup>43</sup> G. Woolf, *Becoming Roman. The Origins of Provincial Civilization in Gaul* (1998); S. Trow et al., *Becoming Roman, Being Gallic, Staying British. Research and Excavations at Ditches Hillfort and Villa, 1984–2000* (2009); T. Charles-Edwards, 'Anglo-Saxon Kinship Revisited', in J. Hines (ed.), *The Anglo-Saxons from the Migration Period to the Eighth Century* (1997), pp. 171–203; C. Gosden and G. Lock, 'Becoming Roman on the Berkshire Downs. The Evidence from Alfred's Castle', *Britannia*, 34 (2003), pp. 65–80.

<sup>44</sup> M. Henig and P. Booth, *Roman Oxfordshire* (2000).

a male burial containing an early fifth-century military-style Roman belt set was found in Iron-Age linear earthworks known as the Dyke Hills, to the south of the town. A broadly contemporary female burial was found nearby, furnished with an intriguing mixture of Romano-British and Germanic dress items. A comparable early fifth-century female burial was also found to the north of the town.<sup>45</sup>

No detailed account of the original contexts of these burials survives and it is now generally recognized that there is nothing inherently 'Germanic' about burial with weapons, but the female burial does suggest the presence of mercenaries and their families, some of whom, at least, came from north-west Germany. Indeed, the upper Thames region as a whole has long been recognized as containing an exceptional concentration of early fifth-century finds of this kind.<sup>46</sup> In 2010, the disturbed remains of several more late Roman burials were recovered from the Dyke Hills. Work subsequently carried out by Oxford Archaeology and Oxford University retrieved several items of very late Roman metalwork from the place where the bones were found, namely the head of a throwing axe and the buckle and plate of another very fine military-type belt, probably manufactured in northern Gaul in the early fifth century.<sup>47</sup> These objects, together with the discovery of three very late Roman buckles of Hawkes and Dunning type 1b from the current excavations in the southern part of the town itself (adding to one recovered from the female Dyke Hills burial), demonstrate the existence at the very end of Roman Britain and beyond of a dominant, arguably military, group at Dorchester which buried at least some of its dead in an ostentatious way in the Iron-Age earthworks.<sup>48</sup>

The potential of the upper Thames region to illuminate the fate of British communities is not limited to Dorchester, however. A group of mostly male burials aligned on the ruins of a Roman villa at Shakenoak Farm, North Leigh (Oxon.), originally thought to belong to the mid Saxon period, have recently been radiocarbon dated to the post-Roman period, with the latest activity dating to between the second quarter of the fifth century and the final quarter of the sixth.<sup>49</sup> Late Roman burials excavated at Tubney Wood Quarry (Oxon.) and Horcott (Glos.) have also recently produced radiocarbon dates which demonstrate that 'late Roman' burial practices such as unfurnished inhumations in nailed coffins continued in these places through the fifth century and into the early sixth century. At Tubney, fifth- to early sixth-century dates came from one of two small, adjacent clusters of such burials, the earlier of which produced late fourth-century dates; an isolated sixth- to seventh-century burial lay some distance to the south.<sup>50</sup> At Horcott, radiocarbon dates of AD 390–570 (at 95 per cent probability) were obtained for three of a group of nineteen unfurnished burials, one of which was buried in a rough lead coffin.<sup>51</sup> These lay adjacent to a late Roman cemetery. Remarkably, these dates indicate that the latest burials could have been contemporary with the construction nearby of a number of distinctively 'Anglo-Saxon' *Grubenhäuser* and rectangular earth-fast timber buildings. Isotopic analysis is currently being carried out on these and other late Roman burials to compare the subsistence practices of late Roman and post-Roman communities in the region.<sup>52</sup> Additional radiocarbon dates for other potentially post-Roman burials in late

<sup>45</sup> J. Kirk and E.T. Leeds, 'Three Early Saxon Graves from Dorchester, Oxon.', *Oxoniensia*, 17–18 (1952), pp. 63–76.

<sup>46</sup> M. Welch, 'The Archaeological Evidence for Federate Settlement in Britain within the Fifth Century', in F. Vallet and M. Kazanski (eds.), *L'Armée Romaine et les Barbares du IVe au VIIe Siècles* (1993), pp. 269–77 and fig. 1.

<sup>47</sup> Booth, 'A Late Roman Grave Group from the Dyke Hills'.

<sup>48</sup> P. Booth et al., 'Dark Earths in the Dorchester Allotments', pp. 414–16.

<sup>49</sup> Personal communication from John Blair. See also below, pp. 227–32.

<sup>50</sup> A. Simmonds et al., 'Excavations at Tubney Wood Quarry, 2001–9', *Oxoniensia*, 76 (2011), pp. 105–72.

<sup>51</sup> *Ibid.* p. 120; C. Hayden et al., *Horcott Quarry: Prehistoric, Roman and Anglo-Saxon Settlement and Burial*, forthcoming.

<sup>52</sup> Y. Sakai, 'The Transition from the Late Roman Period to the Early Anglo-Saxon Period in the Upper Thames Valley: An Analysis of Stable Isotope Values', University of Oxford D.Phil. thesis, in preparation.

Roman cemeteries, such as those in the northern suburb of Alchester and at Radley, may add substantially to this picture.<sup>53</sup>

In short, the upper Thames valley offers exceptional potential for illuminating a variety of late Roman to post-Roman sequences. A recent analysis of the radiocarbon dates of burials at the cemeteries of Queenford Farm and Berinsfield, both of which lie just outside Dorchester, suggests that the late Romano-British cemetery (at Queenford Farm) was replaced by the Anglo-Saxon one (at Berinsfield), established a short distance away, in the first half of the fifth century, with little or no chronological overlap between the two.<sup>54</sup> This outcome accords with the 'conventional wisdom' regarding the chronological relationship between the two types of burial grounds. It contrasts, however, with the evidence from Horcott and Tubney, which instead suggests a scenario whereby a community could continue to bury at least some of its dead in a 'Roman' manner well into the fifth century and even beyond.

Work carried out in the course of the pilot project suggests that the latest occupation sequences at some villas also bear closer examination. Metalworking hearths associated with the latest activity at several villa sites and seemingly linked to the dismantling of certain buildings need to be dated where possible. At Shakenoak, for example, hearths were identified overlying the latest layers in the corner of a room in Building A, to the rear of Building B, and in the boundary ditch F.<sup>55</sup> At Barton Court Farm (near Abingdon), a hearth was found in the centre of Building 2, closely associated with a dispersed coin hoard and numerous metal objects.<sup>56</sup> It is possible that these hearths were associated with the recycling of iron fittings 'quarried' from villa sites in the late or post-Roman period, as appears to have occurred in parts of Italy.<sup>57</sup>

The mapping carried out thus far has revealed several regions that have produced little or no evidence of early Anglo-Saxon occupation despite having yielded numerous metal-detector finds from earlier and later periods. An explanation needs to be sought, for example, for the striking contrast that exists between the stretch of the Thames between Abingdon and Dorchester, and that above its confluence with the Evenlode. Both areas have produced abundant cropmarks, many of which are likely to date to the Iron Age and Roman periods.<sup>58</sup> Yet, whereas a number of Romano-British villas are known from the former region, only one has been found in the latter. Similarly, a cluster of fifth- to sixth-century Anglo-Saxon cemeteries have been found in the Abingdon-Dorchester area, but only one, at Brighthampton, lies west of the Evenlode and none has yet been found between the Evenlode and Windrush.<sup>59</sup>

Such gaps in the evidence, though often ignored, raise the possibility that some of these areas represent enclaves where 'native' forms of settlement and burial persisted into the post-Roman period. In considering the distributions of different kinds of dress items and buildings, it is necessary to recall that 'early Anglo-Saxon' material culture stands for a whole social and political system; its absence therefore is unlikely to indicate an empty landscape, but rather to communities with different ways of doing things. While the form that post-Roman material culture took in lowland Britain was largely due to immigration, its distribution is unlikely to be a direct reflection of that immigration. Instead, the degree to which communities took up this intrusive material culture and the socio-political structures it represented depended in part on the extent to which social networks had been disrupted by the collapse of Roman authority and the specialized economic system linked to it.

<sup>53</sup> P. Booth, 'Late Roman Cemeteries in Oxfordshire: A Review', *Oxoniensia*, 66 (2002), p. 36.

<sup>54</sup> C. Hills and T. O'Connell, 'New Light on the Anglo-Saxon Succession: Two Cemeteries and their Dates', *Antiquity*, 83:322 (2009), pp. 1096–1108.

<sup>55</sup> A.C.C. Brodribb et al., *The Roman Villa at Shakenoak Farm, Oxfordshire* (2005).

<sup>56</sup> D. Miles, *Archaeology at Barton Court Farm, Oxon* (1986).

<sup>57</sup> B. Munro, 'Recycling the Roman Villa: The Use of Architectural Components as Raw Materials for Small-Scale Production in the Late Roman Period', University of Oxford D.Phil. thesis (2010).

<sup>58</sup> Henig and Booth, *Roman Oxfordshire*, fig. 4.1.

<sup>59</sup> Booth et al., *The Thames through Time*, p. 419. I am grateful to Roger Thomas for discussing this question with me.

*The Late Sixth to Mid Seventh Centuries*

The project's second chronological focus concerns the period from c.570 to 650. This period saw socio-political structures change decisively across much of England, with the emergence of leading families able to mobilize resources in new ways, who lived and buried their dead in a manner that marked them out as distinctive. The narrative accounts we have indicate the formation in the late sixth century of a more stable polity in the upper Thames valley, ostensibly under Ceawlin and his successors.<sup>60</sup> Several burial and settlement sites dating to this period have been identified within the study area which appear to relate to this process of comparatively rapid socio-political change. Indeed, two settlement complexes can most plausibly be interpreted as the residences of such leading families, and offer the exciting possibility of understanding more clearly how power was mediated through buildings and settlements in this formative period.

The first of these sites lies at Sutton Courtenay, or rather straddles the parish boundary between Sutton Courtenay and Drayton. Aerial photographs, geophysical survey, metal-detector finds and limited excavation have demonstrated the presence there of what was almost certainly an otherwise undocumented royal centre, whose layout and architecture are uncannily similar to the royal vill at Yeavinger and the complex of large timber buildings found at Cowdery's Down in Hampshire, reflecting the close links that existed between the leading families of these regions.<sup>61</sup> A field that produced ornamental metalwork of the kind found in early Anglo-Saxon inhumation burials also yielded a substantial number of sceattas. This suggests that a fifth- to seventh-century cemetery at Sutton Courtenay was succeeded in the early eighth century by a market, perhaps with one or more adjacent Bronze Age barrows – today surviving only as ring ditches – serving as a visible landmark.<sup>62</sup> Reynolds has recently argued that some pre-Christian Kentish cemeteries had an 'after-life' as the sites of markets and meeting places.<sup>63</sup> Sutton Courtenay strongly suggests that something similar was happening in the upper Thames valley. Closer examination of the small number of sites suggested by the PAS and other evidence to have seen early to mid Saxon continuity may reveal other examples of this kind of sequence (see above).

Further fieldwork at Sutton Courtenay should also establish whether at least the largest of the barrows was still visible in the Anglo-Saxon period, and the extent to which the complex of 'great halls' represents a single, coordinated exercise. This distinctive statement of authority was made within a landscape that was richly endowed not only with natural resources, including expanses of high-quality pasture, but also potentially with supernatural resources in the form of the burials of powerful ancestors. It may be that Gosden and Lock's observation about 'becoming Roman' applies equally to the post-Roman centuries, namely that 'social power derived not just from taking up [new] ways, but through strategic links to older forms of genealogy and their expression through the landscape'.<sup>64</sup>

The second site in question is the cropmark complex at Long Wittenham, a few kilometres to the east of Sutton Courtenay and likewise situated on a gravel terrace. The Long Wittenham complex includes two early Anglo-Saxon cemeteries excavated in the 1860s.<sup>65</sup> The excavations,

<sup>60</sup> Yorke, *Kings and Kingdoms of Early Anglo-Saxon England*; Blair, *Anglo-Saxon Oxfordshire*.

<sup>61</sup> H. Hamerow et al., 'Anglo-Saxon and Earlier Settlement near Drayton Road, Sutton Courtenay, Berkshire', *The Archaeological Journal*, 164 (2008), pp. 109–96.

<sup>62</sup> *Ibid.*

<sup>63</sup> A. Reynolds, 'The Anglo-Saxon and Medieval Periods', in P. Booth et al., *On Track: The Archaeology of High Speed 1 Section 1 in Kent*, Oxford/Wessex Archaeology Monograph, 4 (2011), pp. 348–67.

<sup>64</sup> Gosden and Lock, 'Becoming Roman on the Berkshire Downs', p. 79.

<sup>65</sup> J.Y. Akerman, 'Report on Researches in an Anglo-Saxon Cemetery at Long Wittenham, Berkshire, in 1859', *Archaeologia*, 38 (1860), pp. 327–52; *idem*, 'Report on Further Researches in an Anglo-Saxon Burial Ground at Long Wittenham, Berkshire, in the Summer of 1860', *Archaeologia*, 39 (1861), pp. 135–42.

carried out over three years, revealed a total of 194 burials.<sup>66</sup> Several of the burials from Long Wittenham I were richly equipped and contained weaponry and imports from Northern Gaul, including a remarkable late fifth-century bronze-bound bucket or 'stoup', decorated with biblical scenes.<sup>67</sup> Regrettably, scarcely any of the skeletal remains can now be located, nor was an accurate plan of the graves or cemetery layout ever made.

A series of aerial photographs taken in 1975 revealed cropmarks indicating the presence of three large, rectangular timber buildings and what was tentatively identified as a number of *Grubenhäuser* lying some 200 metres to the east of the Long Wittenham I cemetery.<sup>68</sup> Sonia Hawkes suggested in 1986 that the settlement was either an early 'village-site' or, more likely, due to the size of some of the buildings, a royal vill similar in scale and arrangement to that at Sutton Courtenay-Drayton. No archaeological work has been conducted on the site of the hall complex since the identification of the cropmarks by Hawkes. Further geophysical survey and targeted excavation are needed to clarify the relationship between the settlement and cemeteries and understand how they relate to the wider historic and prehistoric landscapes.

Even in the absence of further fieldwork, however, new archival research combined with cropmark transcriptions from aerial photographic and satellite images, has already yielded significant new findings. In the E.T. Leeds Archive held at the Ashmolean Museum, a letter of 1861 written by local antiquary the Revd J.C. Clutterbuck describes what was almost certainly a *Grubenhäuser* lying at the eastern edge of the cemetery. He observes that 'near the 4 skeletons was a large trench about 4 feet by 8, running E & W about 4 feet deep with two holes at either end like post holes – in the bottom were found bones of swine, a dog head? and other bones with fragments of Roman pottery'.<sup>69</sup> Significantly, the letter also places this feature and four nearby skeletons, 'behind the ditch on the opposite side of the road to the main portion of the previously excavated cemetery'. Indeed, whilst the main portion of Long Wittenham I was located on the site of the present day 'Saxon's Heath' Estate, the limits of the cemetery were not established in the excavations, nor in E.T. Leeds's subsequent research into the site in the 1930s. The putative *Grubenhäuser* and skeletons must, therefore, have lain either at the edge of Long Wittenham I, or on the perimeter of the settlement site identified by Hawkes. In either case, it narrows the distance between the cemetery and the settlement to at most about 150 metres, reinforcing the association between them.

Combining this new information from the Leeds Archive with more recent aerial photographs and LiDAR data, a new transcription of the Long Wittenham site is proposed here (Fig. 7).<sup>70</sup> Whilst the results of this research need to be tested with geophysical survey and fieldwork, a number of key findings can already be highlighted. The hall complex, rather than being 'L'-shaped as suggested by Hawkes, appears to be 'U'-shaped. In addition to the central north-west to south-east axis, a large building previously obscured by earlier field boundaries can now be seen some 50 metres to the north-east of the three originally identified. The LiDAR images suggest that the builders of the hall complex made deliberate use of pre-existing field boundaries, with one boundary running between the two north-west to south-east aligned

<sup>66</sup> The majority of the objects from Long Wittenham I (the larger of the two cemeteries) were held by the Society of Antiquaries until they were deposited with the British Museum in the early twentieth century. The objects associated with around twenty burials were eventually transferred to the Ashmolean Museum. Further grave goods from three burials are now in the care of the National Museum of Scotland and two brooches are on display in Abingdon Museum.

<sup>67</sup> Akerman, 'Report on Researches in an Anglo-Saxon Cemetery at Long Wittenham, Berkshire, in 1859', p. 350, plate XVIII.

<sup>68</sup> Hawkes, 'The Early Saxon Period', p. 89.

<sup>69</sup> Ashmolean Museum, E.T. Leeds Archive, ETL/2/1/353.

<sup>70</sup> LiDAR (Light Detection and Ranging) uses a laser beam, in this case attached to a light aircraft, to map topography. The results can be analyzed within a GIS program and can reveal very slight variations in topography that are hidden by vegetation or otherwise invisible from the ground. The data for this project were acquired from the Geomatics Group, based on Environment Agency data.

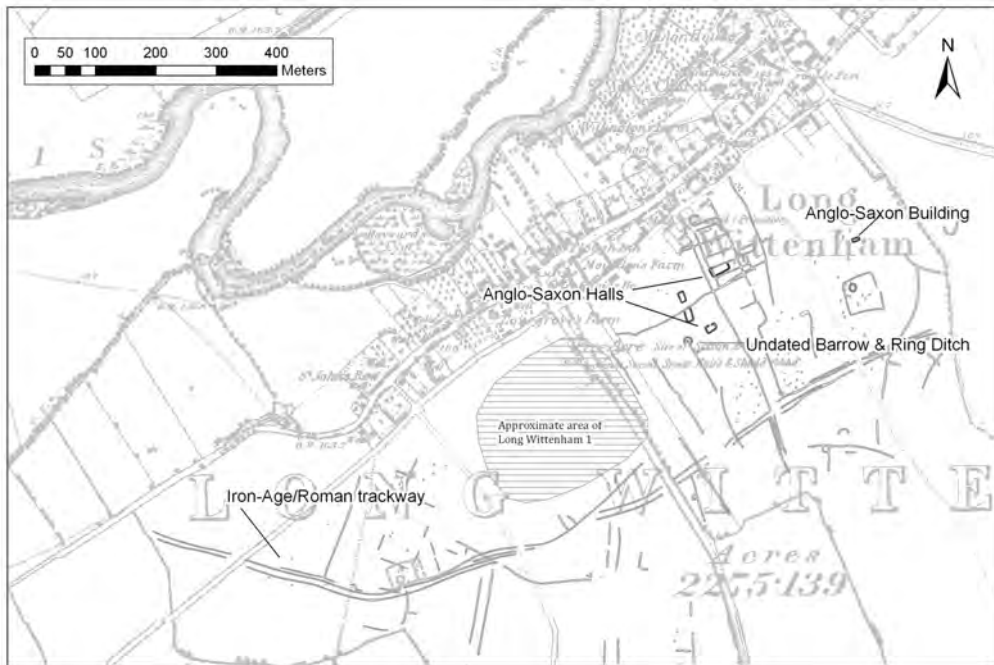


Fig. 7. Cropmarks at Long Wittenham.

structures. The smaller hall, lying to the south-east, appears to be aligned on an undated ring ditch to the west. To the west of the hall complex lie the remains of Long Wittenham I, while to the south, a number of smaller pit-like features, some of which may be *Grubenhäuser*, are clustered near an east–west trackway whose origins appear to lie in the late Iron Age or Roman period, but that almost certainly continued in use into the Anglo-Saxon period (see below).

It was recognized in the course of the pilot project that this trackway led directly from the great hall complex at Long Wittenham to that at Sutton Courtenay to the west, as well as to Dorchester-on-Thames to the east. This observation brings us to another component of the early medieval landscape, namely terrestrial routeways. New approaches using GIS make it possible to understand how proximity to and visibility from such routeways – including not only major Roman roads but also more minor routes, in some cases of even greater antiquity – may have conditioned the location of the high-status centres that emerged in this period.

## ROUTEWAYS AND PLACE IN THE UPPER THAMES VALLEY

*Chris Ferguson*

A number of early routeways into and across the pilot study region were potentially in use during the early to mid Saxon periods including, of course, the network of Roman roads. The distribution of the newly compiled PAS data for the region offers a means of testing which of these routes were in fact in use during this period. When this distribution is viewed together with recent aerial photographic evidence it also hints at the existence of less well documented and, indeed, previously unsuspected routes and river crossings. Considered together, settlements, routeways and zones of visibility indicate the existence of several ‘nodal points’ along the banks of the River Thames in the early to mid Saxon periods.



### *Mapping Routeways: The Dataset*

A number of sources were used to create as accurate a representation of the early medieval landscape as possible for the pilot study area.<sup>71</sup> Archaeological features known from excavation and from aerial photographs were plotted. Transcriptions of cropmarks recorded in English Heritage's National Mapping Programme (NMP) were checked for errors, georeferenced and put into the GIS. It was also decided to investigate the utility of LiDAR imagery for identifying early medieval features, and images were obtained for the areas adjacent to the known Anglo-Saxon complexes at Sutton Courtenay and Long Wittenham. As already noted, this made it possible to produce a new transcription of the complex at Long Wittenham (Fig. 7), revealing previously unrecognized features.

### *The Analyses*

Certain GIS techniques, in particular visibility analyses, were deployed to test whether they might enable the archaeological data to be interrogated in new ways. Within the pilot area, adapted Higuchi viewsheds were used in an attempt to understand the relationship between archaeological sites and those areas of the surrounding landscape that were visible from them. This analytical method has been used in a variety of archaeological studies.<sup>72</sup> Basic viewshed analysis uses elevation models to calculate areas that would have been visible from particular points, and those that would not. A Higuchi viewshed analysis refines this basic model of visibility analysis by accounting for the fact that features seen from a particular location will be seen less clearly as distance increases. The Higuchi method classifies a visible area into a series of bands, utilizing a visual index. For the upper Thames valley, we decided that four visual ranges were the most appropriate banding:

Band 1: 1 km from a given viewpoint; visual clarity can be considered as perfect.<sup>73</sup>

Band 2: 3 km from a given viewpoint; visibility would be reduced, but there would still be considerable clarity. Individual trees lose clarity at distances over 5 km, but at this range it is still possible to distinguish a group of people walking along a pathway.<sup>74</sup>

Band 3: up to 10 km from a given viewpoint; there would be a distinct decay in visual clarity.

Band 4: up to 20 km from a given viewpoint; visibility is possible, but it is impossible to be sure what is being seen. It may have been possible to see smoke or signals at this distance.<sup>75</sup>

These banded viewsheds were generated using three high-status centres thought to be broadly contemporary, namely, the great hall complexes at Sutton Courtenay and Long Wittenham, and the Anglo-Saxon church at Dorchester, the site of which was assumed to be approximately the same as the medieval abbey.

<sup>71</sup> The base data for the visibility analyses was obtained from the Ordnance Survey via the EDINA/Digimap service © Crown Copyright/database right 2012. An Ordnance Survey/EDINA supplied service.

<sup>72</sup> For example, C.R. Bitrià, 'A Multi-Technique GIS Visibility Analysis for Studying Visual Control of an Iron Age Landscape', *Internet Archaeology*, 23 (2008): [http://intarch.ac.uk/journal/issue23/ruestes\\_index.html](http://intarch.ac.uk/journal/issue23/ruestes_index.html); C. Ferguson, 'Bernicia and the Sea: Coastal Communities and Landscape in North-East England and South-East Scotland, c.450–850 A.D.', University of Oxford D.Phil. thesis (2011), pp. 87–9, 215–35; M. Given and A.B. Knapp, *The Sydney Cyprus Survey Project: Social Approaches to Regional Archaeological Survey*, 21st edn (2003), p. 182.

<sup>73</sup> P. Fisher, 'Probable and Fuzzy Models of the Viewshed Operation', in M.F. Worboys (ed.), *Innovations in GIS: Selected Papers from the First National Conference on GIS Research UK* (1994), p. 165.

<sup>74</sup> Ibid.

<sup>75</sup> Bitrià, 'A Multi-Technique GIS Visibility Analysis for Studying Visual Control of an Iron Age Landscape'.

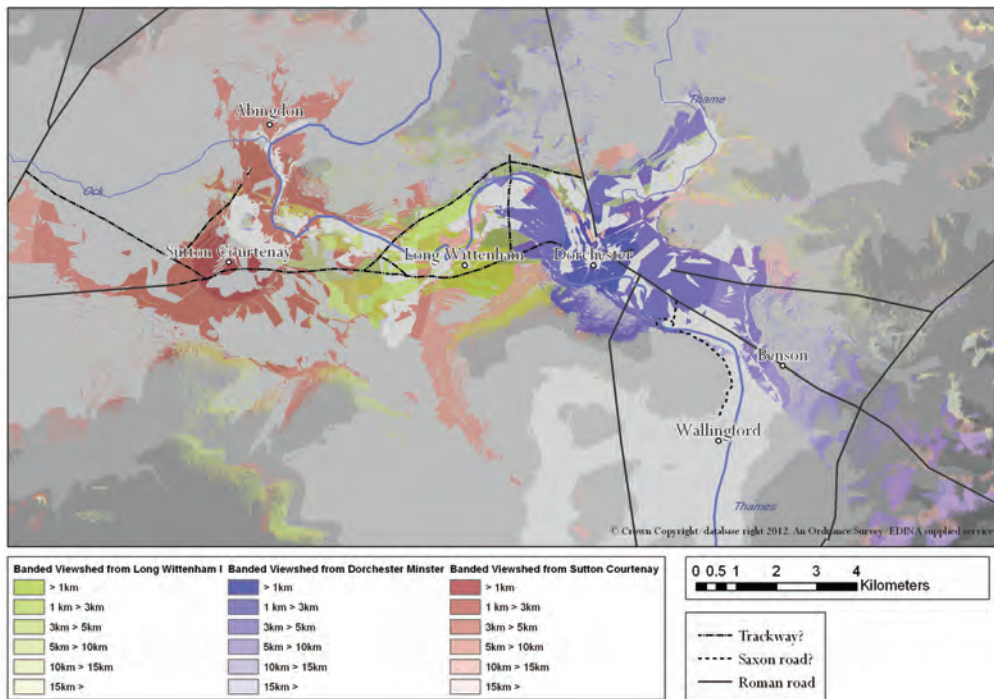


Fig. 8. Visibility analysis of the pilot study area.

### Results

Figure 8 shows the areas of visibility from these three centres. What emerges from the analysis is that each settlement appears to have had a relatively distinct zone of visibility. Rarely do the fields of view for these sites overlap, with the exception of horizon-level hills and other features. Furthermore, on a clear day, people moving along the trackway running parallel to the Thames that connected all three sites would always have been able to see at least one of these settlements.

A question then arises as to whether these distinct viewsheds broadly reflect zones of control. Such a relationship between visibility zones and political control has been proposed for Anglo-Saxon settlements and burials in Kent and along the Northumbrian coast.<sup>76</sup> The relationship between visibility and territorial units has, furthermore, been demonstrated for a later period in the Trodos mountains of Cyprus, where medieval villages were situated 2 to 4 km apart.<sup>77</sup> Each of the villages tends to lie in a bowl surrounded by arable land with a ridge dividing it from the next. None of the villages is inter-visible, and apart from mountain tops and ridgelines there are very few spots where two villages are visible simultaneously. The medieval Cypriot landscape was thus divided into territories comprising what could be seen from the village; indeed these viewsheds correspond remarkably closely with the modern administrative boundaries derived from the colonial and Ottoman periods. An avenue for further investigation is whether other sections of the upper Thames valley exhibit the pattern apparent in Figure 8.

<sup>76</sup> S. Brookes, *Economics and Social Change in Anglo-Saxon Kent AD 400–900: Landscapes, Communities, and Exchange*, BAR BS, 431 (2007), p. 71; Ferguson, 'Bernicia and the Sea'.

<sup>77</sup> Given and Knapp, *The Sydney Cyprus Survey Project*.

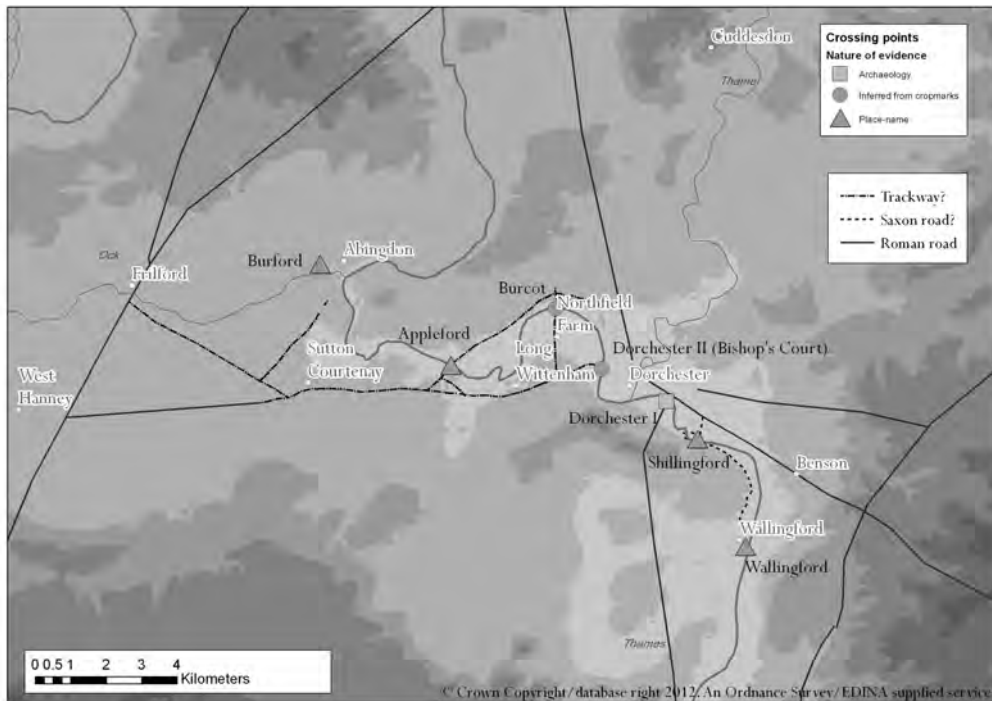


Fig. 9. Routeways through the pilot study area.

In addition to early medieval features, Figure 9 shows all prehistoric and Roman routeways that were, or are likely to have been, visible at the time. This approach has proved fruitful, and what has emerged is suggestive of a network of ancient trackways that were still utilized in the Anglo-Saxon period. Perhaps most significantly, as noted above, an Iron-Age/Roman trackway has been identified, largely from cropmarks, on the south side of the Thames connecting the Anglo-Saxon sites at Sutton Courtenay, Long Wittenham, and Dorchester-on-Thames, and actually passing through the fields containing the two complexes of great halls. Whilst dating trackways is notoriously difficult, small portions of this track were archaeologically investigated at Appleford Sidings and at Sutton Courtenay.<sup>78</sup> Booth has noted that the trackway at Appleford was probably established in the second century, and ‘certainly continued in use into the late Roman Period’.<sup>79</sup> At Sutton Courtenay, the ditches to either side of the trackway were sectioned and pottery dating to between the fifth and seventh centuries was discovered in the base of the upper fill of the ditch.<sup>80</sup> This demonstrates that the ditches were still clearly visible in the early Saxon period, even if they were beginning to silt up. It can therefore reasonably be suggested that the section of the trackway at Sutton Courtenay at least was in use during the fifth to seventh centuries.

This discovery increases the likelihood that other trackways connected to this east–west trackway also remained in use during this period (Fig. 9). In the east it would have met the

<sup>78</sup> P. Booth and A. Simmonds, *Appleford's Earliest Farmers: Archaeological Work at Appleford Sidings, Oxfordshire, 1993–2000*, Oxford Archaeology Occasional Paper, 17 (2009), pp. 39–41; Hamerow et al., ‘Anglo-Saxon and Earlier Settlement Near Drayton Road, Sutton Courtenay’.

<sup>79</sup> P. Booth, ‘Romano-British Trackways in the Upper Thames Valley’, *Oxoniensia*, 76 (2011), p. 9.

<sup>80</sup> *Ibid.* p. 154.

Thames directly opposite the Anglo-Saxon site at Bishop's Court, Dorchester.<sup>81</sup> Running westwards, it meets a spur from the north running through Northfield Farm. The northern spur appears to terminate at the Thames opposite Burcot. Further work might establish whether this marks an early river crossing and whether the route continued on the northern bank. It is possible, however, that Burcot and Bishop's Court mark the locations of previously unrecognized crossing points of the Thames. Continuing westwards, the route would have passed the hall complex at Long Wittenham and the abandoned villa at Appleford. From here it would have continued to Sutton Courtenay/Drayton, where it would again have split into two spurs. One would have joined the north-south Roman road between Wantage and Oxford near the cemetery associated with the Romano-British temple complex at Marcham-Frilford, which also contained post-Roman burials.<sup>82</sup> The southern spur would have joined the same north-south Roman road, this time close to the modern settlements of East and West Hanney.

There is thus a distinct relationship between the areas visible from the three sites in question and routeways. This relationship raises the question of why Dorchester is the only major site along this stretch of the river from which it was possible to view the Thames. Indeed, the river seems to have been almost invisible from the great hall complexes at Sutton Courtenay and Long Wittenham. In contrast, someone walking along the trackway linking Dorchester, Long Wittenham and Sutton Courtenay would almost always have been within sight of one of these places. Could this suggest that control of this terrestrial route was in some sense at least as important as control of riverine traffic?

It is, furthermore, now clear that Sutton Courtenay and Long Wittenham were situated at nodal points on the transportation network. It seems likely that these were two of a number of such points along the Thames that connected terrestrial and riverine routes. The concentrations of finds outlined above suggest that other such nodal points existed in the Cricklade-Lechlade region and also at Cassington-Yarnton. These may well have linked the riverine zone with terrestrial routes based on ancient 'saltways' running north-west through the Cotswolds towards the salt production sites around Droitwich, exploitation of which is likely to have been important in underpinning the power of the early Mercian kings.<sup>83</sup> Further analysis should establish whether the kind of landscape organization seen within the pilot study area is evident at these and other nodal points in the upper Thames network.

## CONCLUSION

The intriguing possibilities raised by the pilot project invite further exploration in a number of ways, first and foremost by expanding the kinds of analyses set out above across the whole of the upper Thames valley. By investigating some of the 'hot spots' of activity newly revealed by PAS data and analyzing the distributions of a wider range of object types, it should prove possible to clarify the nature of exchange networks and test the hypothesis of a 'riverine zone'. Much more also needs to be done to understand the relationship of early Anglo-Saxon sites to late Roman occupation, as well as to prehistoric monuments, routeways (major and minor) and natural resources such as woodland and pasture. A programme of radiocarbon dating of the latest activity in late Roman villas and cemeteries, when combined with the existing body

<sup>81</sup> J. May, 'Romano-British and Saxon Sites near Dorchester-on-Thames, Oxfordshire', *Oxoniensia*, 42 (1977), pp. 42-3; Leeds and Riley, 'Two Early Saxon Cemeteries at Cassington, Oxon.'

<sup>82</sup> For a discussion of the evidence of the Roman and early medieval road network between Wantage and Oxford, see G. Lambrick, 'Some Old Roads of North Berkshire', *Oxoniensia*, 34 (1969), pp. 78-93; G. Rolleston, 'Researches and Excavations carried on in an Ancient Cemetery at Frilford, near Abingdon, Berks, in the years 1867-1868', *Archaeologia*, 42 (1870), pp. 417-85.

<sup>83</sup> J.R. Maddicott, 'London and Droitwich, c.650-750: Trade, Industry and the Rise of Mercia', *Anglo-Saxon England*, 34 (2005), pp. 7-58.

of fifth-century dates and subjected to statistical modeling, should make it possible to establish which sites continued in use into the post-Roman period and to pinpoint more precisely their period of use. It is also essential to integrate place-name studies with archaeological research, as a means of defining distinctive sub-regions within the upper Thames valley, and indeed of helping define the distinctive character of the region as a whole. Is it, for example, possible to detect local dialectical differences, or the survival of pre-English vocabulary? A comparison between the place-names of those parts of the upper Thames with abundant early 'Anglo-Saxon' material culture and those with little or none may, for example, provide clues as to differing identities within these micro-regions. Finally, targeted fieldwork is needed to 'ground-truth' some of the suggestions put forward regarding the small number of late sixth- to early seventh-century sites associated with the leading families that emerged around this time. By drawing upon a range of methodological approaches and sources, it should be possible to understand more clearly the emergence of this region as an early political hub and to place it within the wider context of developing relations between Wessex and Mercia, as well as within the picture that is emerging of kingdom formation across early medieval Britain.

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