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Changing landscapes? Land, People and Environment in England, AD 350-600

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Introduction: moving beyond traditional compartmentalizations of the past

The traditional view is that Roman Britain ended relatively abruptly and decisively: its market-based economy collapsed, its towns and military installations were deserted, and its villa estates abandoned. The archaeological record suggests a clear break, with material culture and architectural styles that had been strongly influenced by the Roman world replaced by new forms of artefacts, settlements, and burial practice introduced by Anglo-Saxon migrants from the fifth century. In part, this view of what happened in the early to mid-fifth century reflects the meagre documentary sources that we have for this period, and the Anglo-Saxon supremacy that was eventually achieved, although we must remember that texts are written by particular people with particular agendas, and stressing chaos and defeat on the part of British communities suited many of those writing about this period (even the Briton Gildas who bemoaned the state of native society). The impression of discontinuity is also, however, very much a product of the way that academic research has been conducted in the past with different scholars, learned societies, and journals focussing on the Roman and ‘Anglo-Saxon’ or medieval periods.

As is increasingly recognised now, there are of course many problems with this crude, history-driven compartmentalization of the past, and the emphasis that some scholars now place upon understanding landscapes, and the transitions between traditional periods – of which this volume is an example – provides a very different perspective, and one that is far more open to seeing continuities within society (or, for this period, potentially multiple societies) and the countryside. The fourth to sixth centuries in Britain are of particular interest for a number of reasons. Firstly, they undoubtedly marked a profound change for the higher echelons of society – the political, commercial, and land-owning elites – although how far this was true for the vast majority of the rural population will be explored in more depth below. Secondly, this is a period in which we can explore one of the major questions that has faced, dogged, and challenged archaeologists of all periods, namely the extent to which change within the archaeological record can be explained by external factors such as migration, as opposed to indigenous developments such as expanding trade and exchange. Thirdly, there is also scope to look beyond texts and material culture in order to explore wider issues such as climatic change whose profile within contemporary society is currently high. In this paper I will therefore consider Britain during the fourth to sixth centuries from an explicitly landscape perspective, exploring what became of the late Roman countryside in this transitional period that saw such profound political and economic changes.

The data used in this paper is drawn from two major projects. The first, *The Fields of Britannia* (Rippon *et al.* 2014; 2015), explored patterns of land-use during the first millennium AD, and the stratigraphic relationship between late Roman and early medieval field systems, while the second, *Kingdom, Civitas, and County* (Rippon in press) examined the development of regional and local-scale socio-economic and territorial structures within which communities managed their landscapes. Through the data-sets presented here, an attempt will be made to explore landscape development at national, regional, and local scales in order to present both a ‘big picture’ overview, and examples of local landscape biographies.

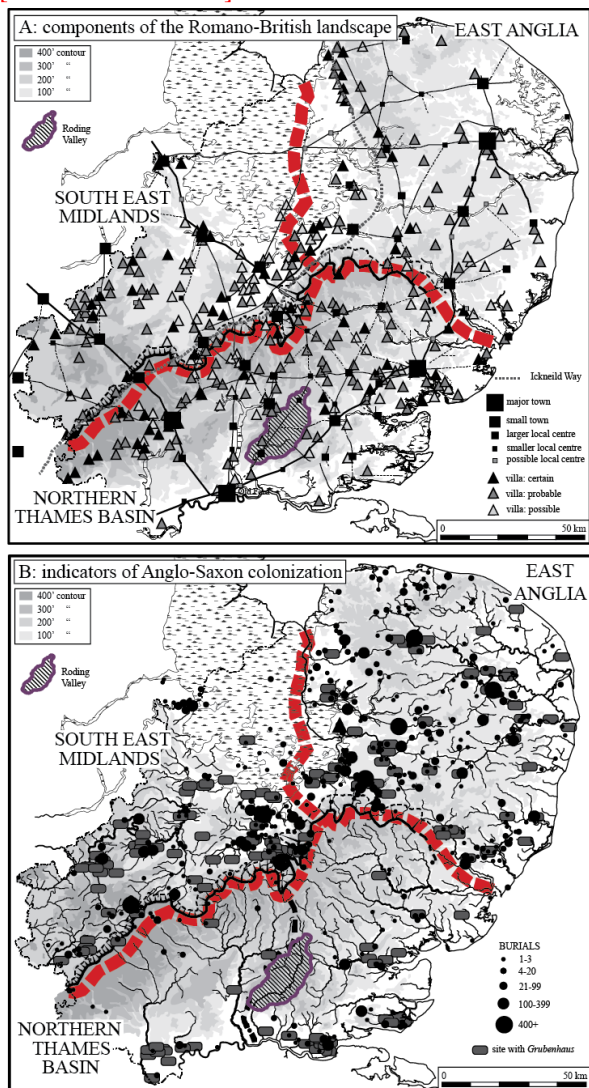
A Roman inheritance

What happened in the fifth century can only be understood against a backdrop of the evolving landscape of the late Roman period. Although traditionally, Romanists have described Roman Britain in terms of a binary division between military and civilian, upland and lowland, and native and villa (e.g. Haverfield 1912; Fox 1932; Dark and Dark 1997), recent work has increasingly shown that there was significant local and regional

variation in settlement patterns and material culture (e.g. Cool 1990; Taylor 2007; Crummy and Eckardt 2008; Laycock 2008; Smith *et al.* 2016; Rippon forthcoming). **Figure 1.A**, for example, shows the road network, urban hierarchy, and possible, probable and certain villas across eastern England, showing how communities in regions such as East Anglia (north of the Gipping-Lark valleys) were far less interested in displaying their Roman identity in these ways compared to areas such as the Northern Thames Basin and South East Midlands.

It was into this varied landscape that the Anglo-Saxon migrations occurred. There has been much debate within archaeology over the role of migration in shaping cultural change, and the Roman to medieval transition is crucial to this debate. Some have argued for a mass folk migration of Anglo-Saxons that almost entirely displaced the native population, while others have suggested that a small warrior elite achieved political supremacy through military conquest (a process that was also seen with the Roman and Norman Conquests). The truth is most likely to lie somewhere in between. The oft reproduced maps showing the distribution of Anglo-Saxon burials give the impression of an immigrant presence that was spread right across most of eastern and central England, although a closer examination of the evidence suggests that this was not the case. As long ago as the 1930s Mortimer Wheeler (1935) noted the scarcity of Anglo-Saxon burials in the area north of London, speculating that this area may have been a British enclave. In recent years, the increased archaeological survey and excavation brought about through PPG16 and its successors has transformed our understanding of the density and distribution of settlement in all periods and regions, and this is particular so for this Northern Thames Basin.

[INSERT FIGURE 1]



A key indicator of actual Anglo-Saxon colonization is the presence of *Grubenhäuser* as this distinctive form of architecture has no precedence in late Roman Britain. Although it has been suggested that ‘sunken featured buildings’ found on some Roman sites were the predecessors of *Grubenhäuser*, Tipper (2004, 7-11) has convincingly shown that this was not the case and that instead they represent an entirely different building tradition of cellars with revetted sides, entrance stairways, and floors associated with hearths and sunken storage jars (e.g. King Harry Lane in *Verulamium*: Stead and Rigby 1989). It is therefore frustrating that the term ‘sunken featured building’ is still used for these Roman cellars as it is extremely misleading. At Tothill Street in Minster-in-Thanel, Kent, for example, a large, rectangular, 0.5 m deep, vertical-sided and flat-bottomed ‘sunken-featured building’ is clearly a cellar as it had a floor on which was a hearth, and into which a pit had been cut; it was back-filled in the first century AD (Birchenough 2010) and is clearly unrelated to fifth and sixth century Anglo-Saxon *Grubenhäuser*.

Despite their providing clear evidence for Anglo-Saxon immigration, the distribution of *Grubenhäuser* is, however, poorly understood with distribution maps in Tipper (2004) and Hamerow (2012) being of selected places referred to in the text. When the complete distribution of known sites is mapped across eastern England, however, it can be seen that *Grubenhäuser* were not evenly spread across the landscape, with three subtly different patterns: firstly, in East Anglia, as far south as the Gipping and Lark Valleys in Suffolk, they are found across most *pays* including on the heavy claylands; secondly, in the South East Midlands, as far south as the chalk escarpment, they are largely restricted to the river valleys and are conspicuously absent from the claylands, despite there having been a large number of recent excavations there; and thirdly, across the Northern Thames Basin they are restricted to coastal and estuarine districts, and again they are conspicuously absent from the claylands (Figure 1.B). These patterns are repeated in the distributions of burials in the ‘Anglo-Saxon’ tradition (that is ones with Germanic style grave goods: seventh century ‘final phase’ cemeteries are not included here as they date after the migration period). These are mapped for eastern England in Figure 1.B where the size of the circles is in proportion to the number of graves which is significant as the scale of these cemeteries varies enormously across eastern England.

What is particularly striking about the Northern Thames Basin and some clayland areas of the South East Midlands is that there are large areas which lack evidence for Anglo-Saxon colonization. These are areas that have, however, seen considerable archaeological survey, excavation, and the reporting of finds from metal detecting. Indeed, major infrastructure developments and the expansion of urban centres means that many of these claylands have seen extensive archaeological investigations which have revealed a high density of late prehistoric, Romano-British, and later medieval sites, but none from the fifth to sixth centuries.¹ There has, however, now been sufficient archaeological work in these areas for us to be fairly confident that they were not extensively settled by communities with an Anglo-Saxon identity, which raises two possibilities: firstly, that what had in the Roman period been an extensively settled landscape were now abandoned, or secondly, that they continued to be occupied by communities who are not archaeologically visible. Three strands of evidence supports the latter hypothesis. Firstly, there is palaeoenvironmental evidence – notably pollen – from number of sites which shows that there was no extensive woodland regeneration in the post-Roman period (e.g. Camborne New Settlement and A428: Abrams and Ingham 2008; Wright *et al.* 2009; Stansted palaeochannel: Havis and Books 2005). Secondly, at various places sherds of fifth to seventh century pottery have been recovered from the upper fills of late Romano-British ditches, suggesting the landscape was still being managed and probably manured. And thirdly, occasional sites have revealed stratigraphic sequences, changes in faunal assemblages, and new forms of material culture that would appear to indicate that occupation continued into the early medieval period. At Childerley Gate, for example, occupation of a late Romano-British farmstead clearly continued beyond the end of the fourth century and an artefact-rich ‘dark earth’ formed across the site (Abrams and Ingham 2008, 99). There was a distinctive change in the animal bone assemblage from cattle to sheep/goat, which reflects a trend seen more widely in this period (Sykes 2007, app. 1b; Rippon *et al.* 2014, tab. 3; Rippon *et al.* 2015, tab. 3.4). Alongside the latest Romano-British mass-produced wares there was a small amount of

¹ e.g. the claylands around Bedford (Timby *et al.* 2007b; Luke 2018; Simmonds and Welsh 2013; Luke 2016); the claylands west of Cambridge (Abrams and Ingham 2008; Ingham 2008; 2010; Wright *et al.* 2009); the claylands of north-western Essex (Havis and Brooks 2004; Barber 2006; Ennis 2006; Roberts 2007; Timby *et al.* 2007a; Cooke *et al.* 2009; Patten 2012; Wolframm-Murray and Chapman 2015); the claylands on the Chiltern dip-slope in Hertfordshire (Stansbie *et al.* 2012).

pottery with a grog-tempered fabric: although published as ‘proto-Saxon’ (Abrams and Ingham 2008, 100), there is no reason why it should be regarded as such because there is nothing else Anglo-Saxon on the site, and instead this pottery probably represents sub-Roman production (Rippon in press).

Overall, the evidence clearly points to an Anglo-Saxon colonization of eastern England that was patchy in its extent, and which occurred within the context of a substantial British population that continued to occupy substantial parts of the landscape. Who was ‘in control’ at this time can only be a matter for speculation, although when we examine particular sites there is a strong sense that Anglo-Saxon settlement in the coastal fringes of the Northern Thames Basin occurred within parts of the Romano-British landscape that had been abandoned (e.g. Mucking: Hamerow 1993; Hirst and Clark 2009; Lucy and Evans 2016; North Shoebury: Wymer and Brown 1995; Orsett Cock: Carter 1998).

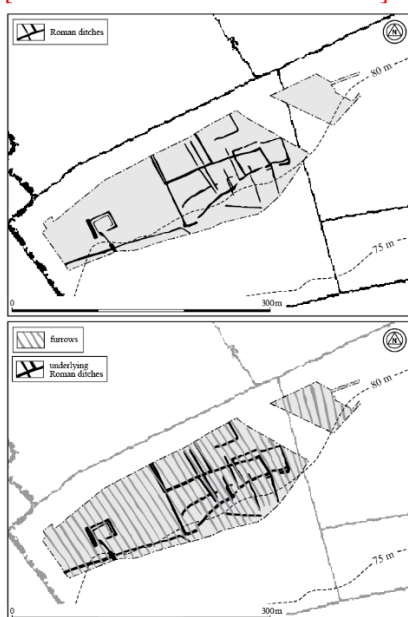
The Fields of Britannia

While a large number of fifth to sixth century ‘Anglo-Saxon’ settlements have now been recognised through both excavation and fieldwalking, the nature of the field systems with which they were associated has been less clear. It is striking that the settlements themselves lack ditched property or roadside boundaries, and where excavations extended beyond the settlements themselves there was similarly a marked absence of evidence for field systems (e.g. Mucking, North Shoebury, and Orsett Cock: see above; West Stow: West 1985). Some have speculated that in part the reason for this was because Romano-British fields remained in use with Taylor (1981, 20), for example, suggesting that:

‘whenever or however the Saxons developed open fields, these had to be based on a pre-existing system of agriculture and field shapes and did not evolve in an empty countryside devoid of any remains of earlier farming. Whether the existing system or the fields were still in use when the open fields as they are understood finally evolved is a question that cannot be answered at the moment. But the main point is that the open-field system was at least partly based on what was already there’.

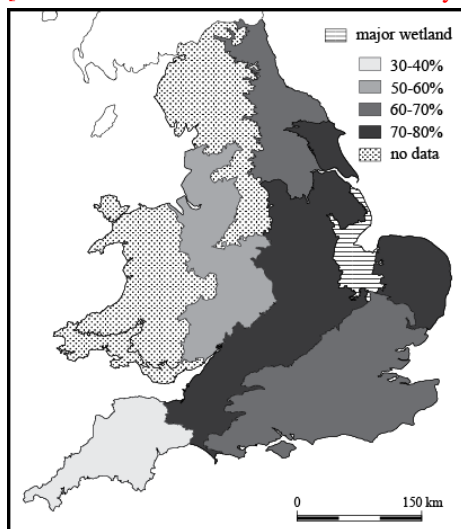
Across the country, anecdotal evidence had started to emerge for just such continuity (e.g. the Midlands: Green 1978, 115; Taylor and Fowler 1978; Upex 2003; Gloucestershire: Thomas *et al.* 2003; East Anglia: Percival and Williamson 2005), but how widespread was it? The possible survival of a substantial late Romano-British population implies that there may have been a considerable degree of continuity within the management of the rural landscape, and this was explored through the *Fields of Britannia* project. This comprised three components: firstly, the analysis of palaeoenvironmental sequences in order to establish broad patterns of continuity or change in land-use; secondly, the analysis of archaeological evidence for the relationship between excavated Romano-British settlements/field-systems and the historic landscape (both discussed in Rippon *et al.* 2015); and thirdly continuity in settlement patterns (Fleming 2016).

[INSERT FIGURE 2: Weedon Hill]



The analysis of archaeological evidence for the relationship between excavated Romano-British settlements and field-systems and the historic landscape quantified the occurrence of three possible relationships: firstly, where excavated Romano-British landscapes were on the same orientation as medieval field systems, secondly, where they shared the same specific alignments, or thirdly, where there was no relationship. Note that Romano-British field systems that occur in areas of the landscape without medieval field systems were excluded from the analysis. An example of this analysis, at Weedon Hill near Aylesbury in Buckinghamshire, is shown in [Figure 2](#). This extensively excavated Romano-British field system is clearly on the same orientation as the ridge and furrow within the overlying medieval open field. Across lowland Britain as a whole – there is insufficient excavated data from upland areas to make any analysis statistically valid – around 60-70% of Romano-British landscapes that were succeeded by medieval field systems shared the same orientation, although there was marked regional variations in the extent to which this occurs. The greatest incidence is in the ‘Central Province’ and East Anglia, the lowest in the South West ([Figure 3](#)). It should be stressed that Romano-British sites in areas without field systems of medieval character (that will include extensive areas of woodland, and unenclosed common pasture) were excluded from the analysis, as well coastal wetlands that were flooded in the post Roman period, which means that we cannot say that 60-70% of the Romano-British landscape shows this degree of potential continuity. It should also be pointed out that [Figure 3](#) is a regional-scale summary of data from various discrete districts whose character varied considerably, and it is likely that the degree of continuity and discontinuity will have been different within individual *pays*. Unfortunately, however, there are at present very few *pays* with sufficient appropriate excavations to make a statistical analysis valid, which is why the data has at this stage been summarised at a regional scale (which is at least an improvement on the old binary divisions between upland/lowland, military/civilian, and native/villa landscapes).

[INSERT FIGURE 3: FoB field boundary analysis]



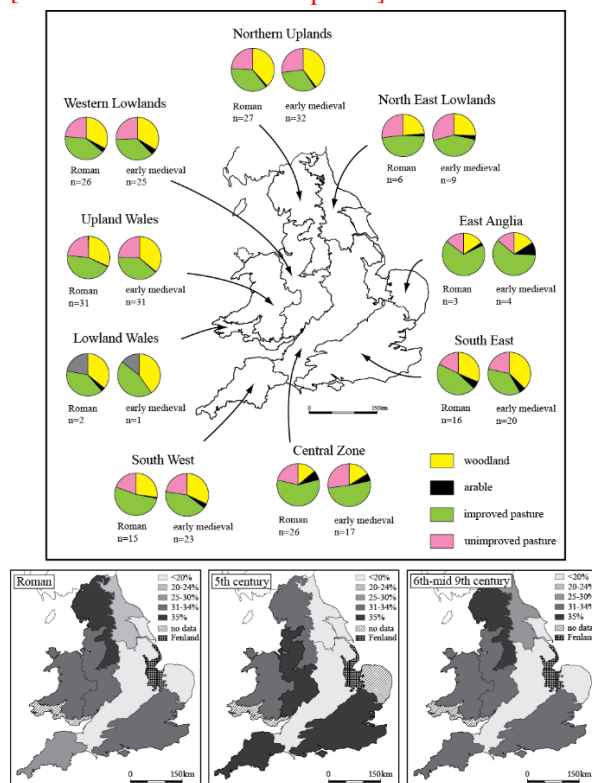
Broad patterns of land-use

This close relationship between the physical fabric of the Roman and medieval fieldscapes suggests the potential for broad continuity in land-use: it does not mean that the fields were continuously ploughed, but that a prolonged period of total abandonment is highly unlikely. Long-term field observations at the Rothamsted Experimental Station at Harpenden, in Hertfordshire, for example revealed that woodland regeneration on former arable land happens within 10 to 30 years (Harmer *et al.* 2001), and this is confirmed by the analysis of historic maps, such as sequential revised editions of the Ordnance Survey, that show how agricultural fields will be invaded by scrub and regenerated woodland within 20 to 30 years (e.g. the Benfleet Downs in Essex: Rippon 2012b, 7). While it is conceivable that the removal of woodland could reveal the earthworks of an earlier field system that was then rehabilitated, in practice the process of clearing trees and grubbing out stumps would

surely destroy or at least render the remains of any relict field system so incoherent that they would simply have been flattened and replaced.

So was there a woodland regeneration? In order to explore the potential widespread continuity that this evidence from excavated late Romano-British field systems suggests another strand of the Fields of Britannia Project was an analysis of pollen evidence. There are now a significant number of pollen sequences from lowland areas for the Roman and the early medieval periods, and some striking differences in land-use emerge. **Figure 4** summarises the pollen evidence from each of the Fields of Britannia's regions, with each wedge in the pie charts representing the proportion of pollen from the four major land-use types: woodland, arable, improved pasture, and unimproved pasture. If we take woodland in the Central Province, for example, **Figure 4** shows that that there was relatively little tree pollen in both the Roman and the early medieval periods, compared to the South East that was both more wooded than the Central Province in both periods and saw a greater increase in the amount of tree pollen in the early medieval period. It should be stressed that these pie charts show the proportions of the 'Total Land Pollen' coming from each of the four land-use groups, and as different plants produce different amounts of pollen these proportions do not equate to the physical amounts of the landscape that were put down to particular land-uses (for example, an acre of trees produces far more pollen than an acre of arable crops). What they do show are relative differences between regions, such as the South East being more wooded than the Central Province. It should also be noted that **Figure 4** is, like **Figure 3**, a regional summary of data from various discrete districts whose character varied considerably, and as more data becomes available it will hopefully be possible to provide a more refined mapping of land-use in each period, and land-use change over time. In the lower part of **Figure 4** this pollen data is presented in another way, with maps showing the proportions of pollen from the woodland land-use type in the Roman period, the fifth century, and the sixth to mid-ninth centuries. It shows that the Central Province and East Anglia were the most extensively cleared of woodland in the Roman period and the early medieval periods, and it is notable that these are the same regions that seem to have had the greatest potential continuity in field systems from the Roman through to the early medieval period (**Figure 3**). While most regions saw very little increase in tree pollen during the early medieval period, the lowland area that saw the greatest rise was the South East although the percentage increase is so small that even here there cannot have been a widespread woodland regeneration.

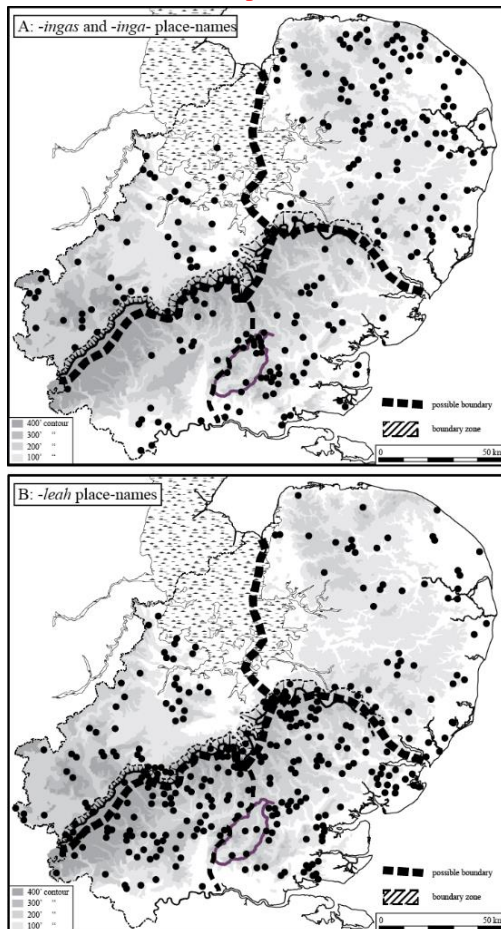
[INSERT FIGURE 4: FofB pollen]



Anglo-Saxons and Britons in the landscape

The combined evidence from the relationship between late Romano-British and medieval field systems, and pollen evidence, suggests that the countryside across large parts of lowland Britain was not abandoned at the end of the Roman period, but was instead maintained in some form of agricultural use which prevented widespread woodland regeneration. Whether there was also demographic continuity is, however, less easy to determine. There has been much discussion over who was buried within ‘Anglo-Saxon’ cemeteries, and that debate will hopefully be moved on through developments in the scientific analysis of skeletal material. Place-name evidence has been taken by many to suggest that Anglo-Saxon colonization was widespread, and that the starting point of a major conference in 2004 examining *Britons in Anglo-Saxon England* started with the question of ‘whether or not there were many Britons within Anglo-Saxon England’ (Higham 2007b, 1), and that many of the papers – particularly by linguists – reject the notion of any significant British survival in lowland Britain, shows that many still stubbornly adhere to the traditional view. A particularly common place-name element thought to be associated with the Anglo-Saxon immigrants is those containing *-ingas* and this will be used here as a case-study to hopefully disprove the notion that the language of landscape is a guide to the ethnic origins of its occupants. Names in *-ingas* and *-inga-* were a common feature of the landscapes of eastern England (Figure 5) although a comparison with Figure 1B shows that they were far more widespread than the archaeological evidence for fifth to sixth century Anglo-Saxon colonization in the form of cemeteries and *Grubenhäuser*, occurring for example in large numbers on the claylands of the Northern Thames Basin. This in itself is not a new observation, and indeed it led Dodgson (1966) to propose that instead of representing the initial phase of Anglo-Saxon settlement, they are evidence of a later phase. The interpretation of *-ingas* names may, however, be less straight-forward than this and it is suggested here that rather than being associated with a new ethnic group – Anglo-Saxon colonization in the traditional sense – they actually simply relate to the naming early folk territories by people using the Old English language irrespective of who was living there.

[INSERT FIGURE 5: place-names]

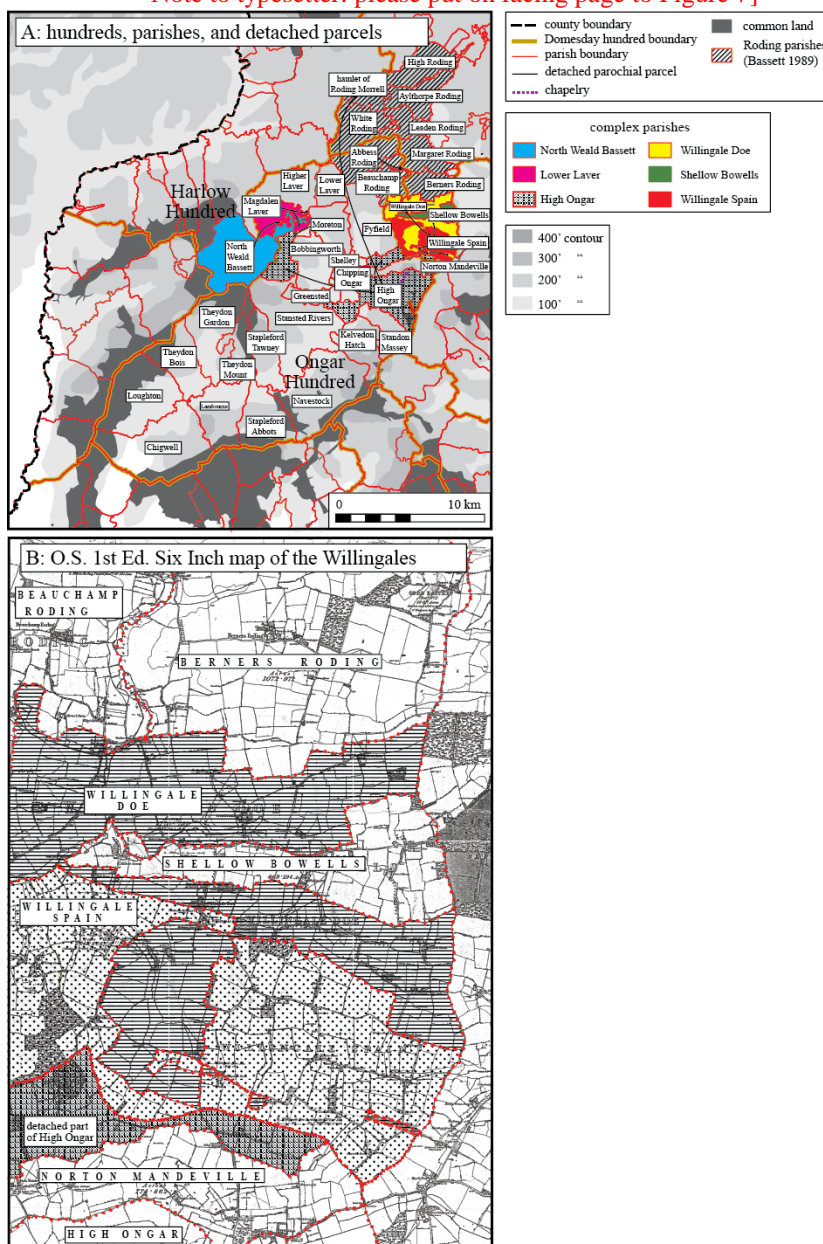


Reconstructing early folk territories

Place-names such as *-ingas* are thought to indicate the territory belonging to a particular social group: Barling, in south-east Essex is *Bærlingum* in 998 (S.1522) and *Berlings* in 1042x66 (S.1056), meaning ‘the Bærlingas, the people called after Bærel or Bærla’, being derived from the Old English folk-name **Bærlingas* (that includes the personal name **Bærel* or **Bærla*) and *ingas* (Watts 2004, 36). In addition to place-name evidence, a wide range of other sources can be used to reconstruct early medieval folk territories (see Rippon 2012, chapter 8, for a fuller discussion). Other place-names can indicate that two territorial units were once one (e.g. Higher and Lower X), while what by the sixteenth century was a parish church may once have been a chapelry of a nearby mother church (a possible indication of the latter’s former minster status). The relationship between parish boundaries and the physical fabric of the historic landscape is also informative: more ancient units tend to have boundaries that follow equally ancient features in the landscape (such as the long, sinuous field-boundaries that run along many watersheds), whereas the boundaries of more recent entities tend to zig-zag through field systems creating complex patterns including one parish having detached parcels in another (an arrangement that might also be created where former common grazing was divided between two newly separated communities).

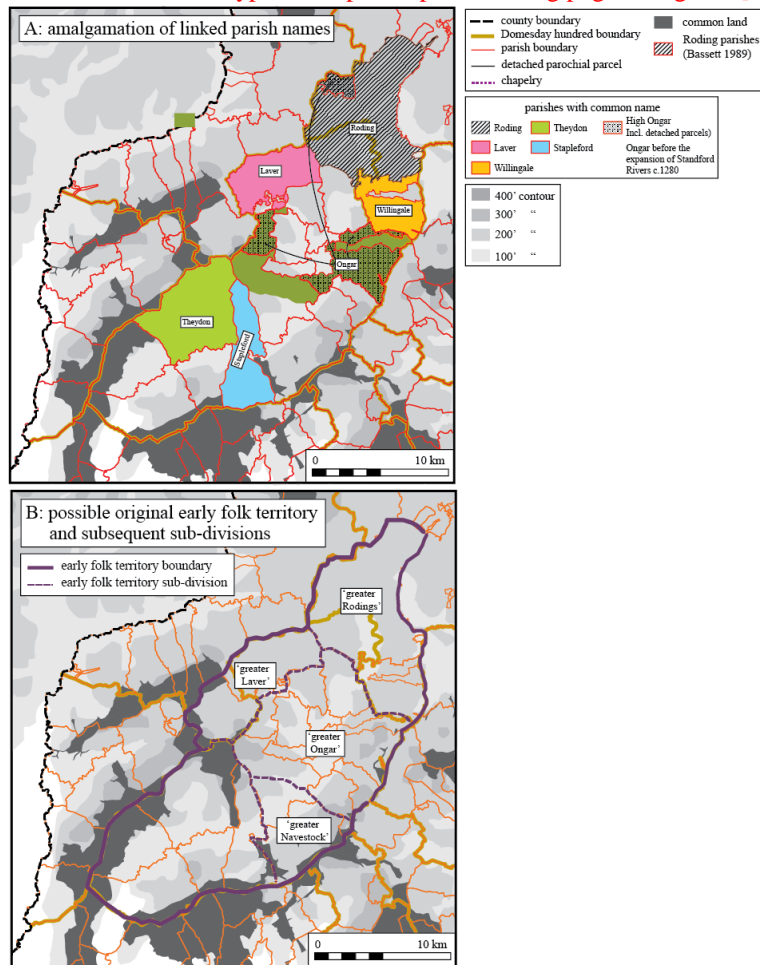
[INSERT FIGURE 6: Rodings evidence

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[INSERT FIGURE 7: Rodings reconstructions

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'The Greater Rodings'

A well-known example of an *-ingas* name is the group of eight parishes and sixteen Domesday manors and other land-holdings called Roding, in western Essex, derived from the Old English folk-name **Hrōthingas*, 'the people called after Hrotha' (Watts 2004, 505). These parishes lie either side of the river Roding, the name of which is a back-projection from the folk-name as in the 11th century it was the *Angrices burne* ('the stream of Angric, Ongar Stream': Watts 2004, 505). Bassett (1997, 25) has previously suggested that the Rodings represent a *regio* of 'an early Anglo-Saxon community whose name they all perpetuated', although there are two problems with this hypothesis: firstly, while the Rodings do form a coherent block of landscape a case can be made for Bassett having under-estimated the extent of the early folk territory on its southern side, and secondly, while the place-name is Old English there is virtually no other evidence for Anglo-Saxon colonization in this district which raises the possibility that it was occupied by a community of native British descent.

That the Rodings may have been part of a far more extensive early folk territory is suggested by a wider examination of the landscape. To the west, north, and east the Roding parishes are contained within a long, sinuous field boundary that mostly follows high ground (e.g. the eastern boundary of Berners Roding on Figure 6.A). Within the Rodings, however, all the parish boundaries zig-zag through – and so clearly post-date – existing fields, suggesting that they are relatively recent compared to the more ancient, sinuous watershed boundaries that enclose the Rodings on three sides. To the south, however, the boundary of Berners and Beauchamp Rodings with Willingale Doe similarly zig-zag through the historic landscape (Figure 6.B) and are clearly relatively recent. Willingale Doe is one of two small parishes (Willingale Doe and Willingale Spain), that are separated by Shellow Bowell (Figure 6.A and B) and the inter-fingering of these three parishes and numerous detached parcels clearly suggests that they were once part of a single 'Willingale' territory (Figure 7.A). The southern edge of Willingale Spain, in contrast, follows a long sinuous field boundary which may have

originally marked the southern edge of a territory comprising the Rodings and the Willingales (with Shellow Bowels; [Figure 7.B](#)). It is likely that White Roding was the central place of this territory: it was the largest parish, sometimes prefixed 'Magna' (Great) (Reaney 1935, 494), the only Roding held by the King in Domesday (*DB Ess* 1,8; probably Kingston Farm), and was by far the most highly valued church in the Taxation of Pope Nicholas in 1291 (Bassett 1997, 29-30). Two curiosities are that the Roding parishes were split between Dunmow Hundred to the north and Ongar Hundred to the south, and that Roding Morrell, a hamlet in the north of White Roding, was a detached part of Ongar Hundred (VCH *Ess* IV, 4; see below), although this probably reflects the late date at which the Hundreds of Essex were created (Boyden 1986).

Greater Ongar

The 'greater Rodings' territory is, in fact, just one of a series of similar large valley-based units in the Roding valley, that altogether make up the rest of Ongar Hundred. One of these is 'greater Ongar'. To the south of Willingale Spain lies a large detached parcel of High Ongar parish that was created when Norton Mandeville, a chapelry of High Ongar created in the 1180s, was elevated to parochial status (VCH *Ess* IV, 172): the place-name 'Norton' suggests it was the 'North Farm' of Ongar. High Ongar parish had a second, substantial, detached parcel on the western side of the river Roding that included High Ongar Farm and the northern part of Ongar Great Park (see below), the rest of which lies in Stanford Rivers. The parish of Stanford Rivers as mapped in the 19th century is, however, larger than it was before c.1280 when it was enlarged to take in the area north of the Wash Brook (that includes Toot Hill) which left High Ongar Farm as a detached parcel (VCH *Ess* IV, 182-3). When the extent of High Ongar is reconstructed on the eve of this change it curved around Bobbingworth, Greensted, Shelley, and Chipping Ongar in a way which suggests that at some earlier date these four parishes were carved out of High Ongar ([Figure 7.A](#)). As the boundaries between Bobbingworth, Shelley, Fyfield, Moreton (which also had a detached parcel in High Ongar), Stondon Massey,² and Kelvedon Hatch all zig-zag through the historic landscape, they too were probably part of this 'greater Ongar' territory ([Figure 7.B](#)). The central place of this territory appears to have been High Ongar, described as a 'mother church' in 1210 (Secker 2013, 89). Chipping Ongar was clearly carved out of High Ongar and it included the hundredal meeting place (VCH *Ess* IV, 155). The importance of Ongar is also reflected in the high value ascribed to its church (Secker 2013, 89), and the nearby Ongar deer park which is documented in the will of Thurstan (dated 1043x1045; VCH *Ess* IV, 159; Whitelock 1930, 83; Hart 1971, No. 59; Rackham 1986, fig. 6.2).

An Anglo-Saxon or British regio?

It appears that Ongar Hundred, as documented in Domesday, was the rump of a once larger territory that included the 'greater Rodings', 'greater Ongar', 'greater Laver' (that included High Laver, Lower Laver, Magdalen Laver, and North Weald Bassett), and the parishes to the south west that were enclosed by two long, sinuous boundaries that ran through the unenclosed commons that capped both watersheds of the Roding Valley. The various linked place-names (e.g. Stapleford Tawney and Stapleford Abbots; Theydon Mount, Theydon Gardon, and Theydon Bois), along with parish boundaries that zig-zag through the historic landscape (sometimes cutting diagonally across fields), all point to these south-western parishes having been a fourth subdivision of the Roding Valley *regio* ([Figure 7.B](#)). The Anglo-Saxon place-names, including *ingas*, would lead many to assume that this area – at the heart of the East Saxon kingdom – was occupied by an immigrant Anglo-Saxon community. There is, however, no evidence for this whatsoever. Essex is a county that has produced a large number of Anglo-Saxon settlements (including *Grubenhäuser*) and cemeteries, although they are far from evenly spread across the landscape, being restricted to southern and eastern coastal districts. Extensive surveys and excavations on the inland Boulder Clay areas have failed to produce any evidence for truly Anglo-Saxon colonization (see note 1 above). These inland areas have also produced very few antiquarian finds of Anglo-Saxon metalwork, the single example from the Roding Valley being a spearhead of late sixth or seventh century date (*Ess* HER 16850) which post-dates the migration period. The PAS has recorded 750 finds (of all periods) from the Roding Valley *regio*, showing that responsible metal detectorists who report their finds are working in the area, but there is not a single fifth to sixth century Anglo-Saxon artefact.³ New, and surprising, discoveries

² Stondon Massey is not in Domesday: its name is derived from the Marci family who certainly held it in 1238, and may have been part of Kelvedon Hatch that in Domesday was held by Ralph de Marcy (VCH *Ess* IV, 242; Watts 2004, 580).

³ in Essex as a whole there are 17,338 artefacts in the PAS database of which 78 are fifth to sixth century AD.

are always being made, but such has been the scale of antiquarian observation across Essex, recent archaeological survey and excavation, and reporting through the PAS, that this absence of fifth to sixth century evidence for Anglo-Saxon occupation within the Roding Valley must surely be taken as reliable negative evidence: there is no evidence that the *regio* of the Roding Valley – and indeed most of the Boulder Clays of central and northern Essex – was occupied by Anglo-Saxons in the fifth to sixth centuries to a significant extent. Coupled with the fact that this was a region with dense Romano-British occupation (Figure 1.A), and relatively few woodland-indicative *-leah* place-names (Figure 5), it is highly likely that this area continued to be occupied by the native British population.

Climate change: a factor in shaping landscape character during the fifth and sixth centuries?

Just as archaeologists have questioned the traditional orthodoxy that change within society was brought about by migration, so they have become sceptical about early ideas suggesting that environmental factors determined human behaviour, a view that was once prevalent in both the prehistoric and historic periods (e.g. Postan 1972; Beresford 1975; Burgess 1985). While crude ‘environmental determinism’ was rejected by landscape archaeologists long ago (e.g. see Wright 1976 for an early rebuttal), in recent years there have been new, more subtle, considerations of how geology and topography may have shaped the settlements and field systems of early medieval England (e.g. Williamson 2003; 2013; although see Lowerre (2015) for a critical assessment), and the character of Romano-British and medieval agriculture (Rippon 2012a; Rippon *et al.* 2014; 2015). In recent years there has also been a growing interest in past climate change, although a worrying trend within modern climate science is the tendency to make simplistic correlations between observed trends in temperature and precipitation on the one hand, and changes within society on the other (e.g. van Geel *et al.* 2004; Turney *et al.* 2006; 2016). Klimenko (2016, 365), for example, plots fluctuations in temperature in north-eastern Europe based upon tree-ring, pollen, lake sediment, and historical data and draws simple correlations with documented historical events, arguing that ‘it is virtually certain that the mode and speed of development and northeastward expansion of the Russian State from the Middle Ages to the Modern Time were in many ways dependent on natural and geographical factors’.

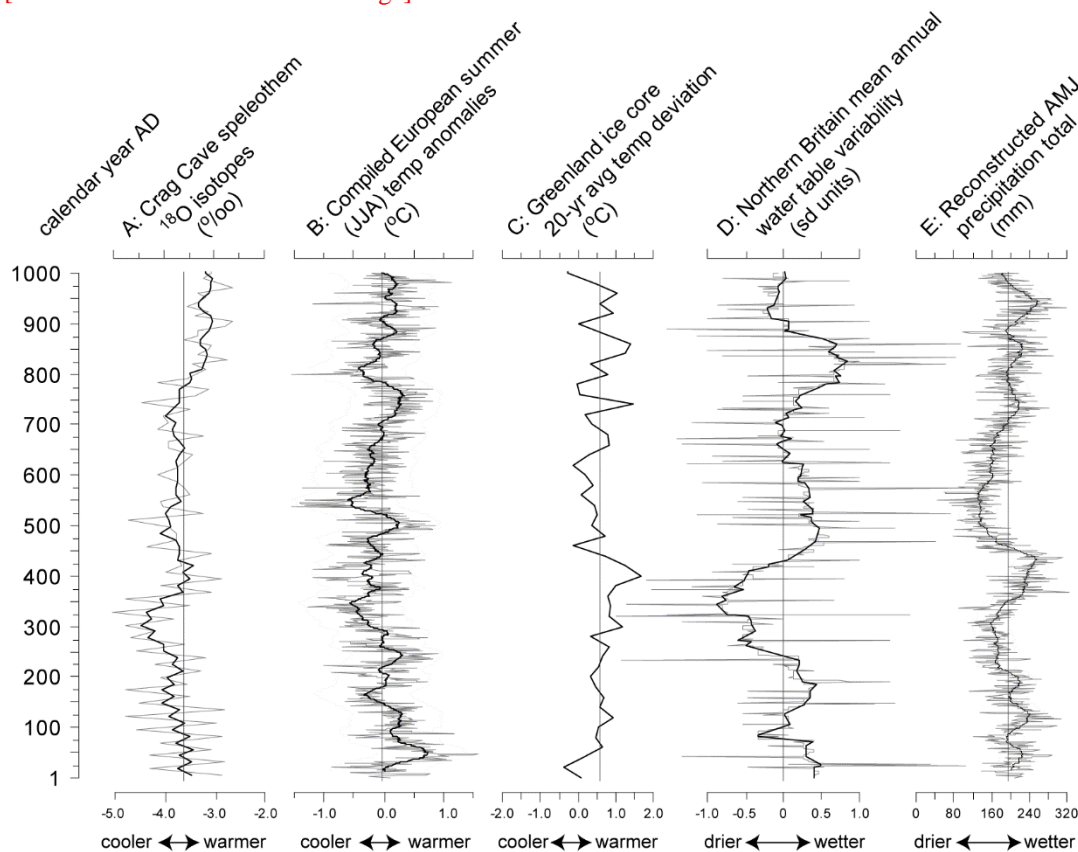
Such views have been challenged within the palaeoenvironmental community (e.g. Coombes and Barber 2005) and Middleton (2012, 268), for example, has argued that ‘palaeoclimatic studies have already profoundly impacted the study of collapse and culture change, and a new determinism is in evidence’. One example is Buntgen *et al.*’s (2016) reconstruction of summer temperatures that does indeed appear to show a decline from the mid-6th through to the mid-7th centuries, but did this really constitute a ‘Late Antique Little Ice Age’ that was a contributing factor ‘to the establishment of the Justinian Plague, transformation of the eastern Roman empire, and collapse of the Sasanian empire’? (Buntgen *et al.* 2016, 231). There are various reasons why not, most notably that most climate change data is from very high upland areas (e.g. the European Alps and Russian Altai-Sayan Mountains) that will not reflect what was happening in the lowlands where the impact of changes in climate will have been far less significant (e.g. in having a far longer growing season such that falls in temperature will not have curtailed agriculture to the same extent as in upland areas). Historians have also jumped on this climate change band-wagon, such as Ellenblum’s (2012) *The Collapse of the Eastern Mediterranean* which argues for ‘a series of well-documented climatic disasters that altered the face of the eastern Mediterranean in the mid eleventh century’ and which led to ‘the physical decline of some of the most important civilizations and cultural centres of the time’: reviews suggest grave concerns over the critical assessment of source material and wider scepticism (e.g. Frankopa 2012; Burke 2013). Along similar lines, Cheyett (2008) argues that ‘reversion from arable to pasture affected regions as far apart as Italy and Poland cannot simply be ascribed to the political and fiscal dislocation of the ancient world, but should be understood as one effect of the climatic anomaly’, but such is the failure to engage with the primary evidence for land-use – just a single pollen diagram is discussed – or to account for the wide range of evidence for continuities in the landscape, that this paper similarly fails to convince.

Another problem with simplistic correlations between trends in climate and societal change is that it is easy to assume that because data is ‘scientific’ it is accurate. While reconstructions of past climate used to be based on scarce and very indirect evidence – mostly documentary references (e.g. Lamb 1982) – modern techniques use a range of proxies such as changes in the widths of tree-rings and plant/animal remains preserved within sequences of upland peat that indicate the degree of wetness. There are, however, many problems: these palaeoclimate reconstructions rely upon analysing deposits at intervals that can be many decades or even

centuries apart, and the material that is used to reconstruct climate may not in itself be datable which means that radiocarbon dates have to be used which themselves are only accurate to a hundred years or so. Overall, many of the climatic trends that have been reconstructed are very poorly dated, which in a period with precise historical dates makes correlation extremely difficult. Another problem is that the analysis of one particular data-set will give one set of proxy climate indicators from one area, and from that it is all too easy to assume that this data can then be applied to a far wider region. In practice, however, a comparison of data from different areas, and using different types of proxy, produces a confusing picture of variability.

Figure 8 brings together a range of recent palaeoenvironmental data compilations that describe climatic fluctuations during the 1st millennium AD. Whilst there are significant challenges in drawing together such a diagram, including dating, discrepancies between data sets, and the diverse – usually marginal – places from where data is obtained, it at least summarises the current position. Charman *et al.* brought together bog-surface wetness records derived from testate amoebae assemblages from ombrotrophic (i.e. rain-fed) peatlands across northern Britain that allow changes in precipitation to be determined,⁴ with key periods of increased wetness in the mid-4th and 8th centuries AD. These compare to raised lake levels in the Alps between 150-250 cal. AD. and 650-850 cal. AD.,⁵ and oxygen isotopes from Sphagnum cellulose from Walton Moss in northern England,⁶ that show broadly the same trends. Whilst there is some correspondence with inferred rainfall in central Europe, there are also apparent differences such the later 5th century that was a period of continued increased wetness in Britain but one of decreased precipitation in mainland Europe (Figure 8.E).

[INSERT FIGURE 8: climate change]



These northern British wet/dry periods superficially appear to correspond to the periods of warmer and cooler summer temperatures identified through oxygen isotopes from a speleothem (stalagmite) in South West Ireland (Figure 8.A),⁷ and in Luterbacher *et al.*'s synthesis of a wide range of proxy records from across mainland Europe (Figure 8.B).⁸ The picture that emerges in Britain is that the 4th century became cooler and

⁴ Charman *et al.* (2006)

⁵ Magny (2004)

⁶ Daley *et al.* (2010)

⁷ McDermott *et al.* (2001)

⁸ Luterbacher *et al.* (2016)

wetter, and while it now appears that this was a period of declining population, it seems unlikely that there was a causal link. The decline in population was not synchronous across Britain,⁹ and the regions where the fall was most marked, such as the South East, were lowland areas where a small change in temperature will have had its most limited impact. Although Büntgen *et al.* have linked the migration period in Europe to temperature and precipitation changes, it is clear that these climatic shifts, and the pronounced deterioration that has been widely recognised that started with the volcanic eruption of AD 536, had no discernible impact in Britain, as temperatures and precipitation were broadly stable from the start of the 6th century.¹⁰ It is noticeable, however, that the period of economic expansion during the ‘long 8th century’ did correspond to a period of warmer and wetter conditions, although the relationship between the two is unclear. This period also saw the emergence of stable kingship, the Christian church, a revival in international trade, and the replacement of folk territories (and their strongly communal patterns of agriculture) with new estate structures: it is difficult to see how these will have been caused by gradual, and slight, changes in climate.

Conclusions

The end of Roman Britain is traditionally seen as having been of great importance in understanding the history of our landscape and society, but traditional debates have been from a Roman *or* an Anglo-Saxon perspective which inevitably leads to the impression of discontinuity in the early fifth century. The extent and character of the Anglo-Saxon migrations have been much debated, but the neglected dimension is the extent of regional variation in the scale of the colonization. When viewed at a national scale, Anglo-Saxon settlements and cemeteries appear to have been liberally scattered across most of southern and eastern England, but when individual regions are examined more closely it can be seen that there are some areas which have seen considerable archaeological survey and excavation and which have revealed prehistoric, Romano-British, and later medieval occupation, but no Anglo-Saxons. This leaves open the potential for the survival of a substantial British population in some (if not all) regions. There are clear discontinuities at the end of the Roman period, although these will have had the greatest effect on the higher echelons of society: the land-owning and urban classes whose prosperity was most tightly associated with the money-based market economy. In many areas of the countryside, in contrast, the disappearance of taxation and collapse of the market economy will have led to a decline in the intensity of agriculture – as there was no longer a need to produce a food surplus – yet life will otherwise have carried on. Indeed, the great advantage of studying the landscape as a whole is that one gets to see the bigger picture, and in particular what was going on within the wider countryside. Data collected in The Fields of Britannia project suggests that there was far more potential continuity within the landscape than previously thought, although this varied from region to region. This continuity is seen both in areas that appear to have seen a significant Anglo-Saxon migration (such as East Anglia and the Central Zone), and those that did not (such as inland areas of the Northern Thames Basin).

Studying landscape at a broad scale is good for providing the ‘big picture’, but in order to fill in the details one needs to study specific places. The example chosen here is of a landscape characterised by Old English place names – and in particular *-ingas* – but where there is no evidence for Anglo-Saxon immigration. Instead, the integration of a wide range of source material suggests that an extensive valley-based territory was occupied by a community of British descent. In addition to the issue of how native Britons and immigrant Anglo-Saxon communities interacted, another factor influencing landscape history will have been the role of environmental factors. This is, however, fraught with difficulties and an emerging challenge is to prevent a new paradigm of environmental determinism as climate scientists simplistically observe correlations between their poorly dated evidence for climatic change, mostly taken from physically extremely marginal environments, and socio-economic trends seen in the archaeological and documentary record. Overall, the fourth to sixth centuries were clearly a crucial period in the history of landscape and society, and one in which scholars from both humanities and science backgrounds need to work more closely together.

Primary sources

DB Ess	Domesday Book, Essex (Rumble 1983)
Ess HER	Essex Historic Environment Record

⁹ Smith *et al.* (2016)

¹⁰ Büntgen *et al.* (2011)

S.0000 Sawyer 1968
VCH Victoria County History of Essex

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Captions

Figure 1: the boundaries between the Northern Thames Basin, East Anglia, and South East Midlands, and the location of the Roding Valley early folk territory, in relation to (A) selected components of the Romano-British landscape (the urban hierarchy, villas, and roads), and (B) indicators of Anglo-Saxon colonization (*Grubenhäuser* and furnished pagan burials).

Figure 2: The excavations at Weedon Hill, near Aylesbury (Buckinghamshire) where extensive excavations revealed a Romano-British enclosure complex on the same orientation as the overlying ridge and furrow, and the post-enclosure historic landscape (after Wakeham 2007; OS 1st Edition Six Inch base map: © Crown Copyright and Landmark Information Group Limited (2013), all rights reserved, 1884; drawn by Chris Smart).

Figure 3: the extent to which excavated Romano-British field boundaries across different regions share the same orientation and/or alignment with excavated medieval field systems or historic landscapes characterized by former medieval open fields (that had been enclosed by agreement and so fossilize their distinctive long, narrow fields and furlong boundaries) or closes held in severalty (see Rippon *et al.* 2015 for a full discussion of the methodology; drawn by Chris Smart).

Figure 4: pollen evidence for temporal and spatial variation in land-use across Britain (south of Hadrian's Wall) in the Roman and early medieval periods.

Figure 5: the distribution of *-ingas* and *-inga-* place names (after Dodgson 1966, fig. 1), and wood-pasture and woodland indicative *lēah* place-names (after Williamson 2003, fig. 20).

Figure 6: evidence for the Roding Valley early folk territory. (A) hundred and parish boundaries, and detached parcels. (B) Ordnance Survey First Edition Six Inch map of the Willingales, showing the relationships between the complex parish boundaries and the historic landscape.

Figure 7: evidence for the Roding Valley early folk territory. (A) the amalgamation of parishes with shared names; (B) the possible early folk territory and its initial sub-divisions.

Figure 8: selected palaeoclimatic proxies for climate change during the first millennium AD The Crag Cave speleothem indicates palaeo-temperature, while the Northern Britain watertable variability is a palaeo-precipitation record. Values for the compiled European summer temperature and Greenland ice core record are expressed as anomalies from the twentieth century average. Vertical lines indicate the first millennium AD average (Sources: A: McDermott *et al.* 2001; B: Luterbacher *et al.* 2016; C: Vinther *et al.*, 2009; D: Charman *et al.*, 2006; E: Büntgen *et al.* 2011) (drawn by Ralph Fyfe).