JOINING THE DOTS: RESEARCH INTO THE LANDSCAPE HISTORY OF THE ICKNIELD BELT AROUND AYLESBURY

ELIZA ALQASSAR AND SANDY KIDD

Aylesbury has expanded dramatically over the last century and continues to do so, resulting in numerous archaeological discoveries. For almost thirty years, major developments have been preceded by archaeological survey and investigation paid for by the developer, amassing a hitherto unprecedented body of information. This paper attempts to go beyond description of individual sites, to 'join the dots' by proposing a model of how this landscape functioned and developed over two thousand years from the later Bronze Age to the Norman Conquest. It argues for evolution from a co-axial landscape of trackways used for local transhumance between the Chilterns and the Vale into the medieval landscape characterised by strip parishes and centred on the royal manor of Aylesbury. It highlights the intensity of Roman rural settlement and poses some questions about that society. Above all though, we aim to present new ideas in a structured form that can inspire thought and be further tested and refined by future research.

The Chiltern scarp is one of the best defined topographical features in the South-East of England, marking the northern limit of the chalk hills where they give way to the Midland clay lands, represented locally by the Vale of Aylesbury. In terms of human geography, the scarp also marks a major historic boundary between the 'ancient' landscapes of the Chilterns and the 'champion' or 'planned' landscapes of the Vale of Aylesbury. Over the years, this division has been noted by a number of writers coming from rather different perspectives: historic settlement patterns (Roberts & Wrathmell 2003), woodlands and hedgerows (Rackham 1990), agricultural economy (Thirsk 1984) and Roman landscape (Rippon *et al* 2015). Technically, the term 'Icknield Belt' describes the narrow band of fertile agricultural soils along the base of the scarp (Avery 1964): however, it is somewhat more broadly interpreted in this paper as covering the band of interaction between the Chilterns and the Vale. The Belt takes its name from the Icknield Way, a long-distance trackway mentioned in early medieval documents and held by tradition to be one of the oldest roads in England (Hepple & Doggett 1994, 8–11).

This study focuses on an area around Aylesbury experiencing rapid growth and huge development pressure. In modern-day planning terms the study area presents considerable diversity – its southern part is in the Chilterns Area of Outstanding Natural Beauty whilst further north around Aylesbury numerous large-scale greenfield developments are proposed to create a massively expanded 'garden city'. Moreover, the proposed route of the High Speed 2 railway runs diagonally across the study area. However, what appears as 21st-century settlement sprawl into green-field landscapes is actually, in many cases, re-settlement of a landscape that was intensively farmed and settled from before the Roman conquest.

This is a place where recent and planned major archaeological projects can provide new insights into how this landscape evolved and worked, but to fully realise its archaeological potential we need to co-ordinate research. Today, most archaeological investigations are conducted on individual development sites by commercial consultancies employed by the developer. It is therefore a challenge to co-ordinate landscape-scale research – this paper is an attempt to address that. Rather than attempting a definitive interpretation, our purpose is to provide a 'research framework', that is in this case a conceptual model of how the landscape developed which can place individual investigations within a wider context and encourage investigators to focus their research on

questions which have wider significance.

We suggest that Aylesbury and its hinterland form a cohesive area for the study of an evolving community's interaction with its landscape and the wider world over some two thousand years from the later Bronze Age to the Norman Conquest. Individual sites, features and finds gain greater meaning from being perceived as interacting elements of a wider working landscape; whilst comparison within and between periods can provide insights, pose questions and suggest avenues for research. The concept of mobility (and constraints on it) both local and longer distance and by both animals and people is fundamental to our approach and leads to an emphasis on roads and trackways, origins and destinations. The methodology depends on a degree of 'back projection' from the mapped landscapes and documented land uses of the late 18th and early 19th centuries, using archaeological and topographical evidence to suggest a reconstruction of the broad outline of earlier periods highlighting similarities and differences. The 18 main investigation locations considered in this paper are shown on Figure 1: the periods represented at them are summarised in Table 1. In some cases we have amalgamated a number of distinct projects undertaken at different times where the same general area was being investigated (e.g. Walton).

Having described the landscape conceptual model in general terms we proceed to describe its conjectured prehistoric origins, Roman intensification and the evidence for change and continuity in the period leading up to the establishment of the medieval villages and open fields. Drawing on the results of recent fieldwork from a range of sites we will consider the ways in which the Romans in particular changed the landscape, by imposing a new road network, establishing new centres of trade and commerce and through the expansion of settlements and farms. We will also highlight tantalising evidence of possible Roman military presence.

DEVELOPING THE LANDSCAPE CONCEPTUAL MODEL

Credit for inspiring the landscape model propounded here must be afforded to the late Edward Bull, whose paper on 'The Bi-Axial Landscape of Prehistoric Buckinghamshire' (Bull 1993) drew attention to a preferred orientation of roads and tracks that he had noticed on Ordnance Survey maps across central and north Buckinghamshire. He pointed out that overwhelmingly the tracks ran either parallel to the Icknield Way or at right angles to it. Moreover, a pre-Roman origin was suggested because Roman roads appeared to be superimposed over the bi-axial network. Bull also noted that medieval open field villages and distinctive 'strip parishes' found along the Chiltern escarpment seemed to have been structured to fit into this pre-existing pattern. Elsewhere in England, similar systems (more usually described as 'co-axial') were being recognised and in places dated to the Bronze Age (e.g. Yates 1999). To begin with, Bull's bold hypothesis did not attract much attention, perhaps because it seemed overly ambitious, lacked direct archaeological evidence and in places seemed unaware of the degree to which the landscape of North Bucks had been re-ordered by the post-medieval enclosure movement. No comprehensive re-assessment of Bull's work is attempted here; rather we focus on an area where his arguments seem strongest and gain support from recent work. The authors remain sceptical of Bull's wider claim for a bi-axial network stretching far to the north of the river Thame up to Milton Keynes and the Northamptonshire border.

The archaeological project which has been most significant in advancing thinking on this matter took place along the Aston Clinton Bypass in advance of its construction in 2002 (Masefield 2008). One of the authors (Sandy Kidd) was responsible for advising the Highways Agency on the scope of archaeological investigation, which included the site of a Romano-British settlement (Aston Clinton Bypass Site B) straddling the B489, a minor road called the 'Lower Icknield Way' which runs parallel to the Chiltern scarp linking Aston Clinton to Marsworth and Ivinghoe. Before excavation began, it was thought that we would find a roadside settlement along the Romanised Icknield Way, as it had long been supposed from its straight course that the B4009/B489 'Lower Icknield Way' was a Roman Road (e.g. Hepple & Doggett 1994, 44). In fact no Roman road was found[1]: though there was a trackway, only it ran perpendicular to the Chiltern scarp, more-or-less along the parish boundary and up towards Tring Hill, where the excavators also found a 6 to 7th-century Anglo-Saxon cemetery. Moreover, the 'Romano-British' settlement proved to be much
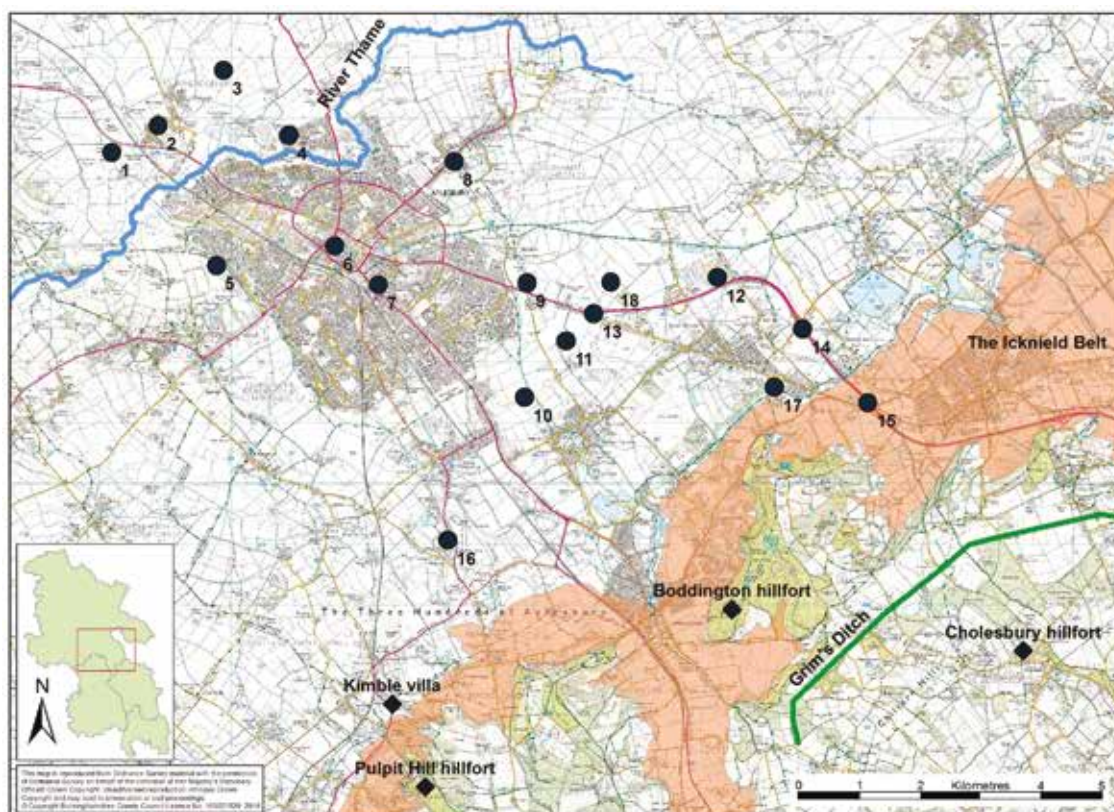
Locations of Investigations:

1	Fleet Marson	10	Hampden Fields Areas 1-3
2	Berryfields	11	Hampden Fields Area 5
3	Quarrendon Fields	12	Arla Dairy, College Road
4	Weedon Hill	13	Aston Clinton Bypass Site A
5	Coldharbour Farm	14	Aston Clinton Bypass Site B
6	Aylesbury Old Town	15	Aston Clinton Bypass Site C
7	Walton	16	Stoke Mandeville Care Home
8	Bierton village	17	Stablebridge Road
9	Aston Clinton MDA	18	Woodlands MDA

FIGURE 1 Locations of investigations mentioned in this article

longer-lived than had been expected, with activity spanning two thousand years beginning in the middle Bronze Age, then continuing apparently unbroken through the Iron Age and Roman periods and up to the 7th century AD, after which the site was ploughed over by medieval ridge and furrow (Fig. 2).

What really mattered was the realisation that the trackway was at least late Iron Age in origin, probably followed a route used in earlier times, had been largely followed by the parish boundary between Buckland and Drayton Beauchamp, and ran southeast – northwest, parallel to roads which formed the spine of these two parishes.

TABLE 1   Archaeology by period at the eighteen key sites

Principal Type of Investigation and Source(s)	Later Bronze Age	Early-Middle Iron Age	Late Iron Age	Roman Early	Roman Late	Early/Middle Saxon	Saxo-Norman	Medieval	Location
Geophysical survey & trial trenching (HS2)	O	O	O	XX *¹	O	XX			1. Fleet Marston
Open area excavations, geophysical survey & trial trenching (Brady & Biddulph 2017)	O	XX	X	XX *¹	O	O	O		2. Berryfields
Geophysical survey & trial trenching (refs?)	O	O	XX	XX	O	O	O	O	3. Quarrendon Fields
Open area excavation (Wakeham & Bradley 2013)	X	O	O	X	XX	O	O	O	4. Weedon Hill
Open area excavation (Bonner & Parkhouse 1997)	O	XX	X	X	O	O	O		5. Coldharbour Farm
Open area excavations, most notably at the Prebendal (Farley & Jones 2012)	O	XX *²	O		X	XX *²	XX *²	XX *²	6. Aylesbury Old Town
Open area excavations in historic core (Dalwood *et al* 1989; Ford & Hollowell 2004)	XX	O	X		X	XX	XX	XX	7. Walton
Two open area excavations (Allen 1986; Tempus Reparatum 1996)	X	O	XX *³	XX *³	XX *³	XX	XX		8. Bierton Village
Survey and trenching of medieval moat & settlement (Archaeological Solutions 2007)	O	O	O		O	O	X	XX	9. Aston Clinton MDA
Geophysical survey and trial trenching (ref)	O	O	O	XX	O	O	O	O	10. Hampden Fields Areas 1-3
Geophysical survey and trial trenching (Wessex Archaeology 2013)	O	O	O	X	XX	O	O	O	11. Hampden Fields Area 5
Open area excavation (Simmonds 2015)	O	X	X	XX	X	O	O	O	12. Arla Dairy, College Road
Open area excavation (Masefield 2008)	X	XX	O	X	O	O	O		13. Aston Clinton Bypass Site A
Open area excavation (Masefield 2008)	X	XX	XX	XX	XX	O	O		14. Aston Clinton Bypass Site B
Open area excavation (Masefield 2008)	X	O	X	X	O	XX	O	O	15. Aston Clinton Bypass Site D
Open area excavation (Thorpe 2004)	O	X	XX	XX	X	O	O	O	16. Stoke Mandeville Care Home
Open area excavation (Morris 2017)	O	O	XX	XX	X	O	O	O	17. Stablebridge Road
Geophysical survey and trial trenching (Walford 2015; Simmonds 2016)	X	O	XX	XX	XX	O	O	O	18. Woodlands MDA

Middle Iron Age storage pits
and 4-post structures

Late Iron Age/Roman
trackway

Iron Age enclosure

Key:

Limit of Excavation

Archaeological
Features

Gravel Track/Hollow Way

Silt Deposits over
Gravel

Furrows & Modern
Features

N

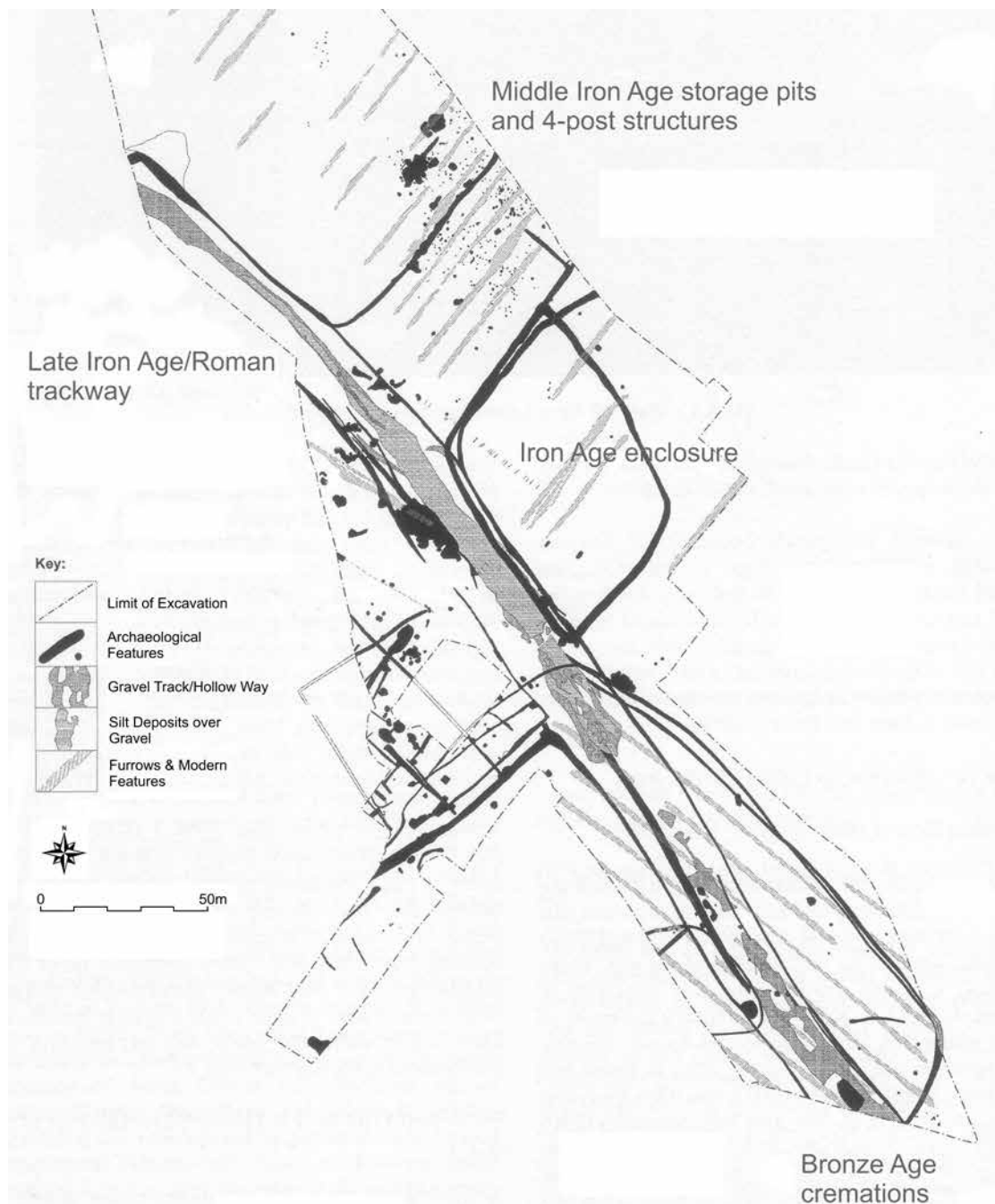0   50m

Bronze Age
cremations

FIGURE 2 The Late Bronze Age to Early Saxon settlement at Aston Clinton Bypass Site B (after Masefield 2008)

Both Buckland and Drayton are classic medieval strip parishes comprising long thin slivers of land running from the vale up into the Chilterns. The results of the investigation were therefore consistent with a core premise of Bull's hypothesis that there was a pre-Roman network of axial trackways aligned perpendicular to the Chiltern scarp and which had survived sufficiently to form a skeleton around which the medieval landscape was created. This ability to generate testable predictions of new discoveries is a particular aim and, we would argue, the strength of the research approach outlined in this paper.

PREHISTORIC ORIGINS

Although the Icknield Belt as a whole was undoubtedly inhabited from the Neolithic onwards, there is as yet little to suggest that the land around Aylesbury was a significant focus for occupation before the Bronze Age. Early Bronze Age evidence remains sparse but includes a Beaker burial and possible settlement at Bierton and a barrow on Bacombe Hill. Early Bronze Age pottery was also found at Walton, on the site of a settlement which thrived in the Middle to Late Bronze Age.

The Later Bronze Age was a time of fundamental change in the society of Southern and Eastern England because it saw the first large-scale dividing-up of land by laying out ditched field systems, probably hedged fields for managing livestock. This was accompanied by the construction of settlements (some with defences) and the large-scale production of metalwork, especially tools and weapons. The best known site of this period in the Chilterns is the hillfort on Ivinghoe Beacon. To the south of our area, in the Middle Thames Valley and on the Heathrow plateau, excavations regularly find the ditches, waterholes, and more ephemeral traces of small farms of these later Bronze Age landscapes. We only know of a couple of examples near Aylesbury at Weedon Hill and Aston Clinton (Cotswold Archaeology 2016), suggesting that land use took a different and probably less intensive form around Aylesbury.

The handful of later Bronze Age cremations found at Lower Icknield Way that lay alongside the much later trackway hint that the route was in use from these much earlier times, but for now all we can do is suggest that the origins of the co-axial landscape lie in the movement of herds and flocks up and down between the Vale and the Chiltern Hills in later prehistory. Although the creation of co-axial field systems do sometimes appear to involve a deliberate act of landscape planning akin to laying out parliamentary enclosure fields, there is no obvious reason why it should always have done so. Williamson (2008) has observed that the main linear axes of many such 'co-axial landscapes' are defined by trackways which likely functioned as droveways between winter and summer pastures and that these landscapes are the product of complex histories. Plausibly here the co-axial landscape could have resulted from gradual piecemeal expansion of populations and local negotiation. To begin with, at least there would have been plenty of land to share around a small population and the tracks could have appeared naturally as animal paths when herds were driven between pastures and back to manure arable fields, or to settlements for slaughter. Nevertheless, it should in principle be possible to test the hypothesis of design and planning against that of organic growth. The former should show evidence of broadly regular and contemporary initial layout, which under later piecemeal modification moves towards a less ordered state. In contrast, the latter would suggest a low intensity, patchy start, perhaps showing 'trial and error' with greater order appearing later as the population grows and pressure to regulate land use increases. Either model is possible in principle, but in the authors' view the available evidence from around Aylesbury favours organic evolution; in contrast it might be said to elsewhere. At Heathrow, for example, a regular ditched field system appears *ab-initio* (Framework Archaeology, 2006).

Hillforts were constructed at the margins of the co-axial system on the Chiltern scarp and in the Vale close to the Thame and the claylands north of the river. Along the Buckinghamshire section of the Icknield Belt, hillforts seem to occur in these locations in pairs:

Chiltern scarp	Vale of Aylesbury
Pulpit Hill, Princes Risborough	Long Crendon (newly discovered)
Boddington Camp, Wendover	Aylesbury
Ivinghoe Beacon	South Hill, Cheddington

However, these hillforts were not all contemporary. Occupation at Ivinghoe belongs to the Late Bronze Age (although the defences may have been built slightly later), whilst Aylesbury is of Middle Iron Age date. None of the others have reliable dating, although limited evidence from Boddington and Long Crendon suggests they are Late Bronze Age or Early Iron Age. The roles played by hillforts are still much debated nationally, but here at least it is tempting to see in these pairs of hillforts the products of communal effort placed strategically in a 'liminal' location at the interface of the community's core territory and the less intensively occupied, and perhaps more contested, lands on either side. In his study of English and Welsh hillforts, Ian Brown draws attention to the likely role of some hillforts in transhumance economies, and also to the way they can be strung along and dominate riverine and overland routeways (Brown 2009, 196–214). The relationship of the Chiltern hillforts to the both the Icknield Way and the co-axial trackways would fit this pattern.

On the north side of the Icknield Belt, the Thame and its marshy valley floor will have provided a natural boundary and protective barrier. However, there was no such natural boundary feature to the south of the Chiltern scarp. This is perhaps why it became necessary to construct the Chiltern Grim's Ditch. The main sections of Grim's Ditch are two discontinuous arcs of linear earthworks running between Bradenham and Berkhamsted with a northern bank and southern ditch. Where the monument is still well preserved, the bank and ditch can be together up to 15m wide, whilst small-scale excavations have revealed a V-shaped ditch about 2m deep, in one place possibly with a fence or palisade on its south side. The monument is not yet closely dated, although some Iron Age pottery has been recovered from sections. Viewed topographically for much of its length, Grim's Ditch follows more-or-less the boundary between the chalky soils of the Chiltern scarp and the clay-with-flint of the dip-slope. Historically, that marks a distinction between areas characterised by open downland grazing and woodland. The long straight lines of Grim's Ditch suggest it was built in open countryside, but as yet we lack the environmental evidence to test whether it actually marked a change of land use in prehistory. Whilst the Ditch is not of defensive proportions, it would have been a clear boundary posing a substantial

obstacle to herds, pack animals and wheeled vehicles, so what it does do is tell us something about how movement was being controlled. With its south-facing ditch and rampart and arcing form it encloses and contains the heads of the Chess and Hughenden Valleys. It was presumably built by the communities of the Icknield Belt and intended to prevent (or at least manage) movement from south to north. Interestingly, the Ditch appears not to have cut across either the Wendover or Princes Risborough gaps, which form the natural routeways from the Thames via the Colne and Wye valleys. In other words, Grim's Ditch seems to be about managing local movements, probably of domestic animals as much as humans, rather than longer distance travel[2]. In closing, mention should be made of Cholesbury Camp, which lies within the eastern arc of Grim's Ditch and has produced pottery of a type associated with the Atrebates of Hampshire: it does very much look as if a boundary has been imposed to close off Cholesbury's northern frontier, reminding us that such a substantial barrier must surely have had a political context.

Putting all of this together it is possible to create a model of how later prehistoric people and their herds moved around the Aylesbury landscape based on topography, focal sites (principally the hillforts), routeways, boundaries (both artificial and natural) and a lifestyle of local transhumance (Fig. 3).

ROMAN INTENSIFICATION

One of the major roads of Roman Britain, Akeman Street, crosses through the study area on a WNW-ESE alignment connecting *Verulamium* (St Albans) with *Corinium* (Cirencester) via Alchester (Bicester). The construction of Akeman Street is likely to have been around AD 44–50, given its strategic role linking the *Catuvellaunian* tribal capital with the conquest-period forts at Alchester and *Corinium* (see Henig & Booth 2000, 35). Later, it would have been maintained as a route between the provincial capital at *Londinium,* the *civitas* capital of *Corinium* and legionary fortress at Caerleon. Recent excavations in the study area place the construction of Akeman Street in the mid-late 1st century AD (Brady & Biddulph 2017, 5).

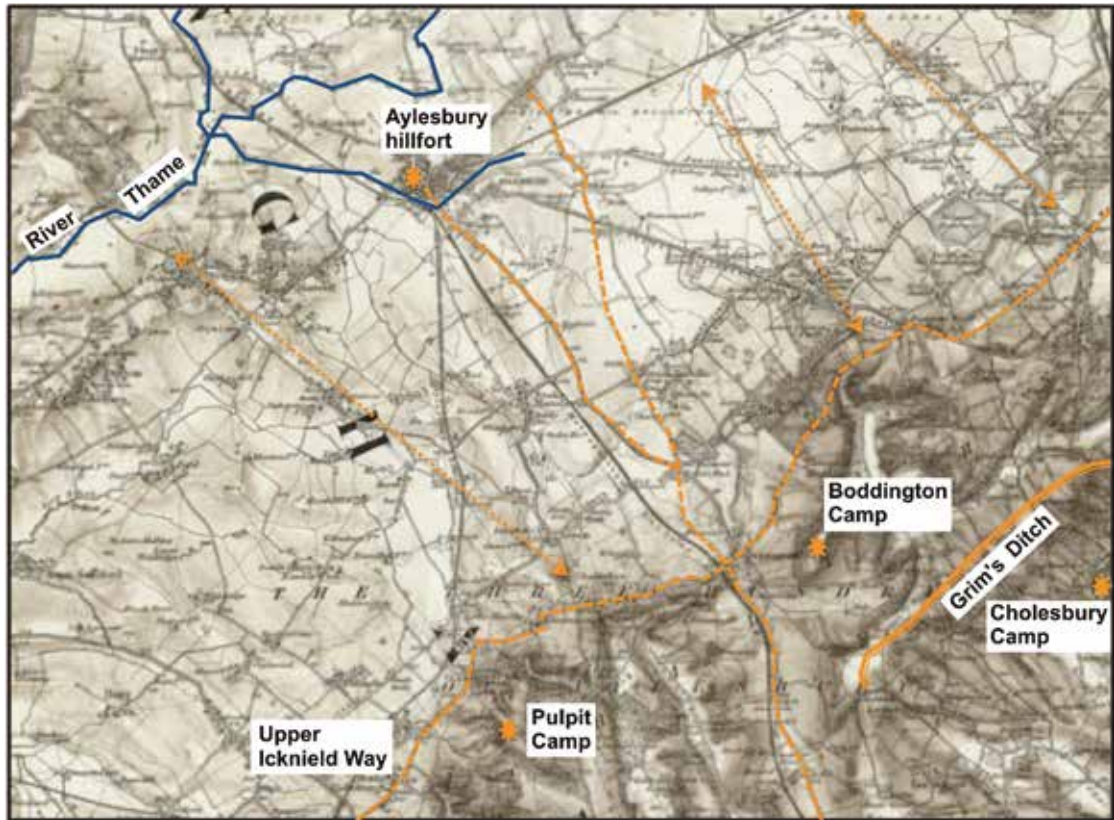Recent fieldwork has shown that Roman farm-

FIGURE 3 Conjectural patterns of movement in prehistory showing hillforts, local transhumance patterns, longer distance routes and obstacles (Thame and Grim's Ditch)

steads, field systems and trackways existed along a wide corridor straddling this road. Where large-scale fieldwork has taken place we have seen that the rural settlements existed in some places approximately 1km apart. All but one of the locations considered in this paper (Table 1) has some Roman evidence, but the chronology needs to be better understood. Although these sites are not all contemporaneous, and some might only have been occupied for a few generations, the evidence suggests that this landscape was fairly intensively occupied from the 1st century BC into the 4th century AD. The fact that so many of them have late Iron Age origins also suggests that these settlements already existed, albeit in smaller forms, and settlement probably expanded and intensified throughout the 1st-2nd centuries AD and then declined somewhat. Where a distinction can be made between early and late Roman occupation,

five sites show a decline in activity from early to late compared to only two which show an increase and another two see little change.

Intriguingly, most of these rural settlements do not appear to reflect the alignment of Roman Akeman Street. The overwhelming majority of them are aligned NW-SE and respect the prehistoric trackways and boundaries already discussed in this paper. The best examples of this are located to the south-east of Aylesbury, at Aston Clinton Bypass Site B (noted above), at the Arla Dairy (Fig. 4: Simmonds 2015), Hampden Fields (Fig. 5: Wessex Archaeology 2013) and the proposed Woodlands development sites (Simmonds 2016) (Fig. 6).

All of these sites are arranged at right angles to the Icknield Way on a NW-SE alignment. In the case of the Roman farmstead at the Arla Dairy, the site is located directly on an existing parish

FIGURE 4 Romano-British enclosures at the Arla Dairy site, aligned NW-SE (after Simmonds 2015)

boundary (Fig. 8). It seems likely that these farms developed along the pre-existing droveways, rather like beads along a string. If, as we suggest later, the droveways survived into the Anglo-Saxon period, then this may explain why we can now see a correlation between Roman settlements and parish boundaries in this area.

Although Akeman Street was the principal Roman road there were several others. In 2014 a Roman road was uncovered by University of Leicester Archaeological Services in Aston Clinton, to the south-east of Aylesbury (Morris 2017). The site, at Stablebridge Road only 200m southwest of Akeman Street, had been occupied in the mid-1st century AD (Fig. 9). There were a number of roundhouses and four-post structures with a ceramic assemblage offering a tight date range of AD 30–60. Following this, around

AD 60–70, the site was re-arranged with a large, rectangular ditched enclosure aligned NW-SE. By the 2nd century a straight road or trackway was laid out across the site, apparently ignoring all settlement activity that had preceded it. The ditches defining it were 20m apart and later in the 2nd century the road was narrowed and possibly metalled. There was evidence of wheel rutting and repairs and the road continued in use until the 3rd century AD, when it may have become more of a green way and was no longer maintained. Most significantly, this is the first excavated Roman trackway running along the foot of the Chiltern escarpment. It lines up perfectly with a gap in the course of the Lower Icknield Way **and** provides evidence of movement along rather than through the Chiltern scarp in the Roman period, connecting the Roman small towns at Dorchester-on-Thames and Dunstable. Confirmation of Roman origins for the Lower Icknield Way provides evidence of improved communications along the Icknield Belt in the Roman period and may account for some of the intensification of settlement in this area.

There is little evidence for the Roman military in Buckinghamshire. No forts or camps have been located, although as noted above the army and its supply lines must have passed through the area in the 1st century AD as a fort was built close to Akeman Street at Alchester in or shortly after AD 44. However, there is some tantalising evidence that has emerged around Aylesbury. Early Roman military metalwork, including a harness clip from Germany, apron or belt mounts and a spearhead, has historically been recovered from Fleet Marston, the site of the small Roman town to the west of Aylesbury, and Walton Court in Aylesbury (Farley *et al*. 1981). More recently, an excavation on the site of a new care home in Stoke Mandeville revealed a new Roman site (Thorpe 2014). A large enclosure, sub-divided and linked to a number of wells, yielded a proportionately high number of horse and dog bones, a mid-1st century AD spearhead, a ballista ball, hobnails and other metalwork. This may represent evidence of a military connection, perhaps supply to the army. Perhaps there is no firm evidence of a military presence because the army passed through peacefully, with no need for a fort.

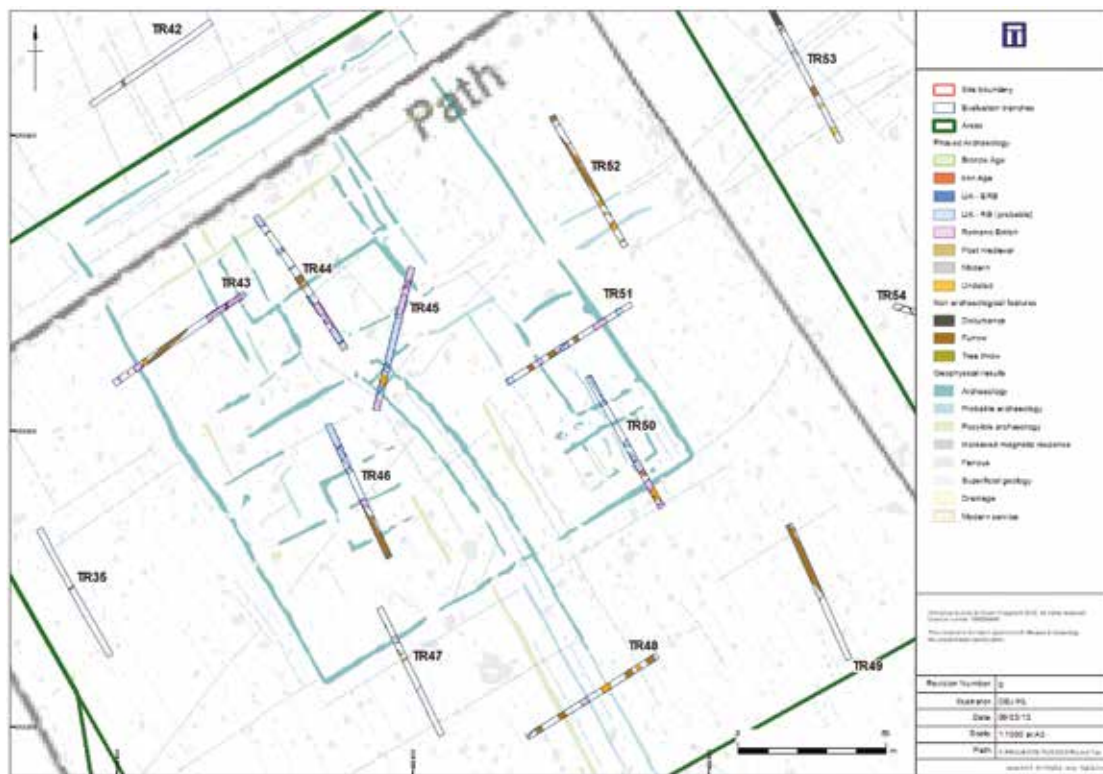As we have seen, settlement intensified in the 1st and 2nd centuries AD. Settlement also

FIGURE 5 The Romano-British enclosed farmstead at Hampden Fields Area 5, aligned NW-SE (after Wessex Archaeology 2013)

diversified, and recent fieldwork has uncovered high-status Roman sites with the remains of stone structures, tesserae and painted wall plaster (e.g. Dinton villa and Woodlands MDA site), along with numerous lower-status enclosed farmsteads (e.g. Arla and Hampden Fields). The enclosed farmsteads in places had an organised layout. The site at Hampden Fields (Fig. 5) had a layout reminiscent of a small Roman fort, with a large rectangular double-ditched enclosure around Romanised buildings and trackways forming a crossroads in the centre. It was clearly a Romanised settlement influenced by military architecture with stone structures, but it does not appear to represent a particularly high-status site and indeed showed evidence of lead working and more domestic use. It is on sites like this that the line between farm and villa becomes rather blurred. Some sites in the area had a more specialised function, including a malting house at Weedon Hill, not far from Akeman Street

(Wakeham & Bradley 2013). Here the whole process was carried out on site, from steeping and drying the grain to brewing. Evidence of malting was also uncovered to the west of Aylesbury (Brady & Biddulph 2017).

North of the Thame a nucleated roadside settlement, perhaps a small town, became established at Fleet Marston, to the west of Aylesbury. This Roman site has been studied in a piecemeal fashion over the years, but recent geophysical survey undertaken for HS2 has shown the clear street layout and alignment of the settlement. One part of the town is aligned NW-SE, perhaps based on an earlier routeway, and the other is a more typical regularly-planned Roman 'ladder settlement' along Akeman Street. One road led north towards the Roman temple at Thornborough and possibly another north-eastwards to the town of *Magiovinium* on Watling Street. Finds of a lead coffin and pewter hoard (Parkhouse 1997) indicate the presence of high-status inhabitants.
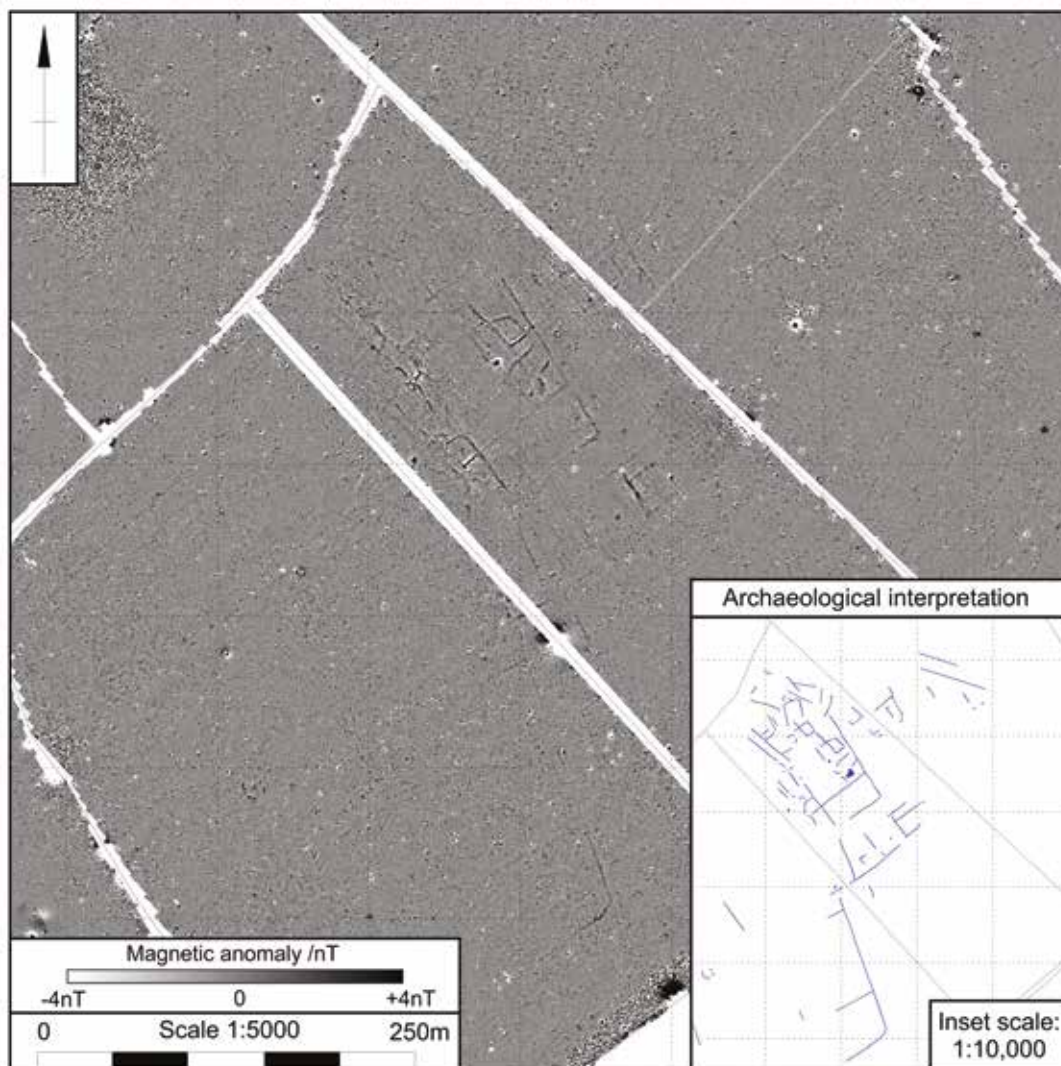
FIGURE 6   Romano-British farmstead at Woodlands MDA (after Walford 2015)

Further research is needed to properly understand the status, layout and extent of this settlement, but what is clear is that it represents the expansion of settlement in this area, perhaps a deliberate plantation at a key point on the early Roman road network reflecting the importance of Akeman Street for trade and communication. So far as we know, no other settlement in the vicinity of Aylesbury was of comparable size, whilst the finds suggest the presence of some inhabitants of equivalent status to those found at local villas. Together these features suggest that Fleet Marston was the principal Roman settlement in the Vale of Aylesbury (Fig. 10).

EARLY SAXON RETRENCHMENT

A key issue for the arguments expounded above is the extent to which the Romano-British landscape influenced that which came to be recorded on maps of the 18th and 19th centuries. Central to our argument is the case that the Icknield Belt continued to be managed and farmed within a landscape framed by the co-axial trackways which
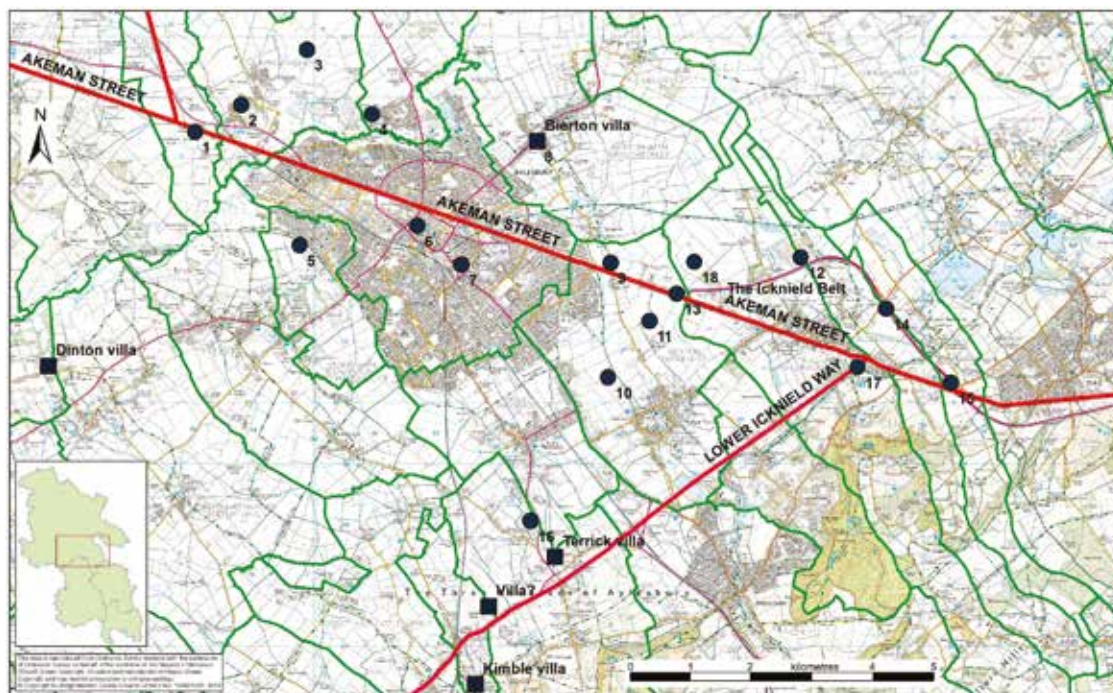
FIGURE 7 Correlation between historic parish boundaries (green) and Romano-British sites in the study area (see Fig. 1 for key to sites)

had originated in the later Bronze Age/Iron Age, continued and intensified through the Roman period, and survived its end to be later incorporated into medieval open field townships and strip parishes. How plausible is this?

The end of formal Roman rule in Britain and the transition to Anglo-Saxon England has been much debated. Roman imperial governance ended between 408 and 410 when the British *civitates* first expelled the officials of the usurper Constantine III, then the Emperor Honorius effectively granted Britain independence by instructing the *civitates* to look to their own defence. Debate has generally centred round the character of late Romano-British society, the role of Christianity, social 'revolution', Germanic mercenaries and migration (Dark 2000).

The scanty material evidence for fifth-century occupation in Buckinghamshire has recently been summarised (Farley 2010, 109–115). Aylesbury has long seemed an interesting place to explore how this transition worked, not least because of its description in the Anglo-Saxon Chronicle as

a British town (whatever that meant) captured by Cuthwulf in AD 571. Archaeological excavations in Walton have revealed a substantial early/middle Saxon settlement under the medieval hamlet (Ford *et al* 2004) whilst Aylesbury's St Mary's Church probably lies on the site of a Saxon minster built within the ramparts of the Iron Age hillfort (Farley 2012). Numerous burials have been found in the town centre which was clearly built over a large cemetery from which the earliest radiocarbon date, from burials excavated in the County Museum garden, are mid to late 7th century (Summerfield-Hill 2012). Around Aylesbury, other early/middle Saxon settlements have been partly investigated on the Aston Clinton Bypass and at Bierton: there is also a notable concentration of pagan Saxon cemeteries, including one discovered on the Aston Clinton Bypass alongside Tring Roundabout. This was a small cemetery of 18 excavated burials dating to late 6th to mid-7th century, situated at a prominent location on the Chiltern scarp alongside the junction of Akeman Street with a co-axial trackway,
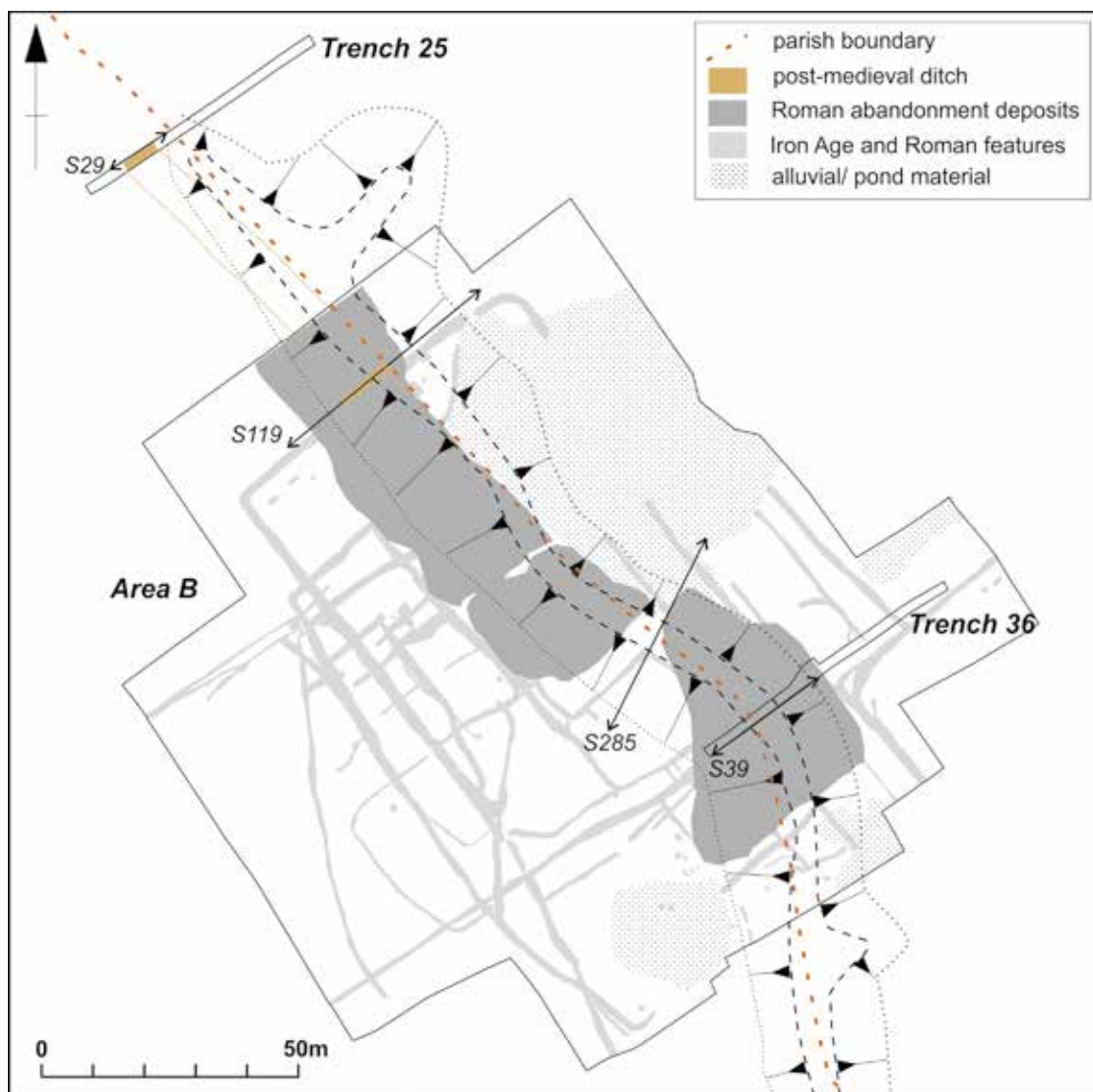
FIGURE 8 Roman farmstead at the Arla Dairy site beneath later parish boundary earthworks (after Simmonds 2015)

and possibly the Upper Icknield Way too (Mase-field 2008).

So what we have is a mixed story, on the one hand widespread apparent desertion of Romano-British settlements but on the other the re-use of pre-existing places by the early Saxon population. The local 'central place' shifts from Fleet Marston back to the old hillfort at Aylesbury, cemeteries lie alongside co-axial trackways and/or Roman roads

and the sites of some Romano-British settlements (Aston Clinton Bypass site B and Bierton) are still inhabited. In the co-axial landscape south of the river Thame we find these hints of continuing occupation, but to the north discontinuity seems more real and complete. Despite extensive exca-vations on the substantial Romano-British settle-ments at Fleet Marston and Weedon Hill, there is so far hardly any trace of Anglo-Saxon activity.
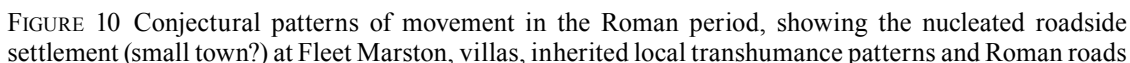
FIGURE 9 The Roman road/trackway under excavation at Stablebridge Road, Aston Clinton, bisecting an earlier enclosure. North at the bottom (Photo: Mike Farley)

Coins, pottery and a radiocarbon date show that the malt house at Weedon Hill was in use into the late 4th century, but there is no early Saxon pottery and only a lone 8th-century *sceatta* found in the field by a metal-detectorist.

Even the Roman roads were partly lost: the road that became the modern A41 looped away from Akeman Street, several miles of the route north to Thornborough disappeared as did the entire road to *Magiovinium* (the southern stub of which may have been rediscovered on the Berryfields and Quarrendon Fields development sites). In contrast, south of the Thame Roman Akeman Street and the Lower Icknield Way largely survived; albeit the former was locally diverted into Aylesbury and the latter eventually lost a long section between Nash Lee and Wilton, probably due to the construction of Halton Park and the Grand Union Canal.

FIGURE 10 Conjectural patterns of movement in the Roman period, showing the nucleated roadside settlement (small town?) at Fleet Marston, villas, inherited local transhumance patterns and Roman roads

A phase of post-Roman road development is also evident on historic maps taking the form of the radial pattern of routes centred on the royal estate, minster and population centre at Aylesbury/ Walton. This development disrupted the inherited Roman network by diverting Akeman Street and dragging the local communications hub away from Fleet Marston (Fig. 11). Each of the routes can be seen to connect with regionally important Middle and Late Saxon centres: the burhs at Buckingham and Oxford, the royal estates at Benson and Limbury, the minster/monasteries at Dorchester and Wing, St Albans Abbey's manor at Winslow and the *wic* (international trading emporium) and later *burh* at London. It was along these highways that villages such as Bierton, Stone and Whitchurch developed. Whilst archaeological proof for the early medieval origins of these routes is lacking, their relationship to the medieval settlement pattern is suggestive. They are likely to have functioned locally as 'portways' for bringing taxes and rents in kind to the royal manor and produce to the market[3]. A military function as 'herepaths' (literally army roads) forming a sub-regional defensive network also seems possible.

SAXO-NORMAN MANORIAL LANDSCAPE

Medieval settlement studies have shown that village formation was well advanced across the English Midlands by the 11th century; the Domesday Book records places which can with very few exceptions be identified with known historic settlements. David Hall has argued, principally from Northamptonshire evidence, that open fields originated in the 8th and 9th centuries alongside the abandonment of dispersed farmsteads and concentration of population onto the sites of what became
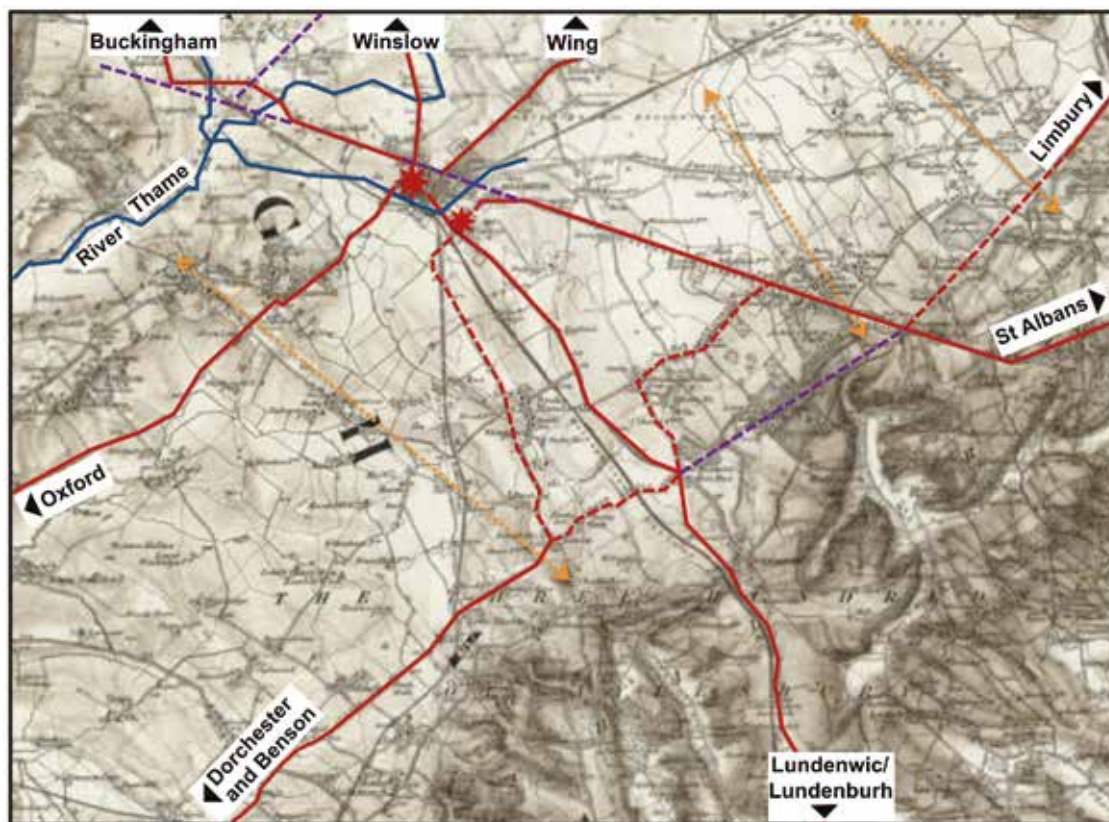
FIGURE 11 Conjectural patterns of movement in the early medieval period, showing the new radial road pattern centred on Aylesbury/Walton with its longer-distance connections, inherited local transhumance patterns and abandoned/diverted sections of Roman roads

medieval *vills* (Hall 1995). Whilst this paper does not purport to examine in detail how the medieval landscape around Aylesbury originated and functioned it is central to our thesis that the process of creating parishes, villages, manors and their open fields along the Icknield Belt occurred within a pre-existing landscape framework and did not result in the wholesale sweeping away of all that came before. In contrast, village formation on the claylands to the north may owe much less to pre-medieval precursors.

Mike Farley has pointed out that, although still quite rare, evidence for later Saxon occupation has been found within some Buckinghamshire villages, but is not usually found outside them (Farley 2010, 141–2). In contrast, Early Saxon and Roman sites are found both within historic settlements and out in the fields. The effect is illustrated around

Aylesbury by the fact that all five of the locations on Table 2 which have produced Saxo-Norman evidence lie within historically documented settlements. Of the other twelve locations, only Aston Clinton Bypass Sites A and B have evidence for substantive activity after the Roman period and then only lasting until the 7th century. Thus around Aylesbury the focus of settlement onto what were to become the sites of villages seems to have started quite early on, perhaps being substantially complete by the 8th century. If this is correct, then later Saxon settlement evidence should only be found beneath (or at least closely associated with) medieval settlement, although of course it does not follow from this argument that all medieval settlements had such early origins.

Village formation seems to be related to the creation of open fields and the structure of the

townships and parishes which governed the daily life of medieval agricultural communities. As noted above, a distinctive feature of the Icknield Belt is the many long narrow 'strip parishes' which run from the Vale of Aylesbury up into the Chilterns and fossilise the structure of late Saxon land-units (Hepple & Doggett, 1994, 62–65). These strip parishes mirror the alignment of the co-axial trackways which form the spine for each one, illustrating their function of moving people and their animals to exploit the different resources of each topographical zone. The coincidence of location between abandoned Roman settlements and trackways and these parish boundaries noted above is crucial to the argument that this is not simply a creation of later Saxon estate forma-tion, but rather the product of that process occur-ring within an inhabited landscape framed by a pre-existing co-axial system. In order to concen-trate population and arable land into an open-field system, some of the co-axial trackways had to be closed down but they provided a natural marker for dividing their land roughly evenly between their neighbours. Thus abandoned settlements which had lain alongside these tracks came to lie on or close to parish boundaries, even though the parishes were established hundreds of years later. If this model is correct, then away from the strip parishes we might expect to see less correlation between parish boundaries and Roman or early Saxon sites. Some of the larger parishes along the Icknield Belt do not fit the strip parish model (Wendover is an obvious example) and may have a different history: we suggest that co-axial tracks were present[4] but have become obliterated when later absorbed into larger wealthier estates. North of the Thame, early Saxon settlement is virtually absent, so the later Saxon period could be suggested to have been one of recolonization of woodland or waste with village formation occurring with little influence from pre-existing cultural landscapes[5]. Early Saxon settlement is equally sparse on the Chiltern hilltops, but colonization there probably occurred even later, much of it in the three centu-ries between the Norman Conquest and the Black Death, after the main floruit of village formation.

CONCLUSIONS

As explained at the outset, the purpose of this paper is to set out a 'conceptual model' for the development of the landscape around Aylesbury from the later Bronze Age through to the Middle Ages. This model allows broad predictions to be made about the types of archaeological evidence expected to be encountered in particular locations. These predictions are summarised in Table 2 and illustrated in Figs 13-15.

Essentially we are proposing that in later prehis-tory droveways grew up organically between the Thame and the Chilterns because farmers moved their herds along them to exploit varied grazing opportunities. Naturally, people built their homes and animal pounds and conducted some of their ritual lives (cremation burials) alongside these routes, so their observable archaeology looks like a series of beads (sites) on a string (the trackway). Thus we can begin to explore the daily round for ordinary people by investigating the links and differences between sites. None of this need to have been the product of any grand plan, but each group (perhaps an extended family with depend-ants or slaves) belonged to a local community which came together to arrange marriages and exchanges, to manage relationships and disputes, perform religious rituals and (more visible archae-ologically) to build 'monuments' such as the hill-forts and linear boundary banks. Looking wider afield, a series of such communities seems to have grown up along the Icknield Belt from the Thames in Oxfordshire and stretching into Bedfordshire and Hertfordshire, each one seemingly having a pair of hillforts (not necessarily contemporary), one on the Chiltern scarp and the other in the vale below. Thus, the Icknield Belt had an organised settled landscape bounded to the north and south by more extensive open grazing lands within which later prehistoric settlement was sparser, either self-contained or 'shielings', dependencies of the Icknield Belt communities. The role of the Icknield Way (assuming it existed at this time) could have been to facilitate communications between neigh-bouring communities along the Icknield Belt and stands in contrast to Grim's Ditch' implication of tension with communities to the south and an impression of distance from (and indifference to?) those to the north in the Ouse and Ouzel valleys.

The intensity of observed archaeological evidence around Aylesbury shows a distinct peak in the Roman period (Fig. 12). As noted above, this peak actually seems to have been reached in the early Roman period when the Roman road network
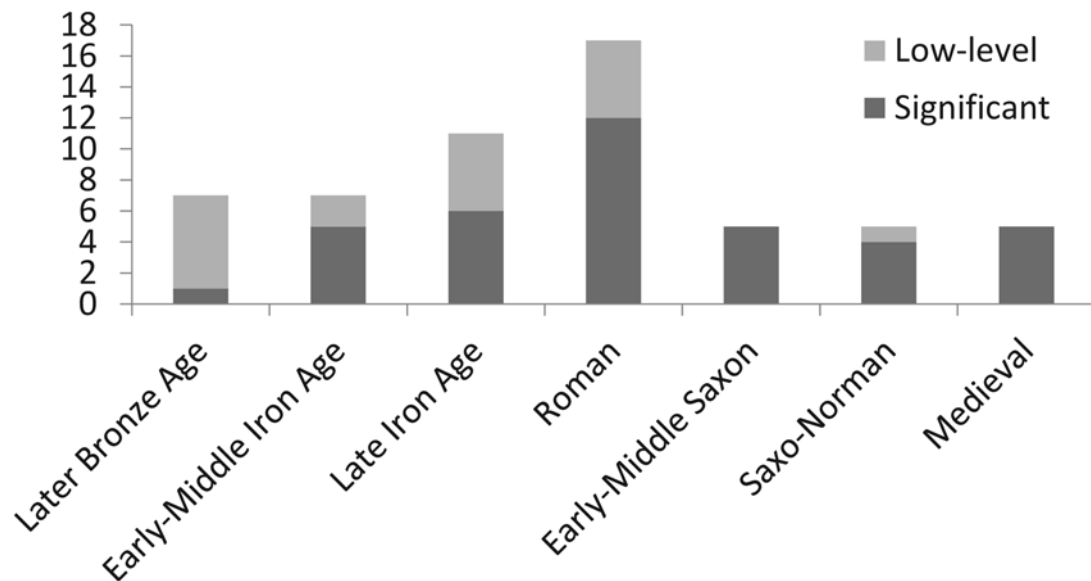
FIGURE 12 Subjective assessment of the intensity of archaeological activity observed at the eighteen key sites

was established by cutting through (but not obliterating) the earlier droveways. Many small settlements, including the 'Romanised' farm enclosure at Hampden Fields Area 5, were established within and in relation to the droveway pattern. Probably we should not simply study these as individual sites but rather as parts of a system defined by the droveways. Viewed from a medieval landscape perspective for a moment, might we expect a single 'manor farm' along each droveway with subsidiary sites for dependants and slaves? Does the agricultural emphasis of sites vary because of specialist roles and differing status within an 'estate'? Looking north of the Thame, was the Roman 'town' established here because the landscape was less constrained by existing land use and ownership, thus enabling expansion to take place with less conflict?

The Roman settlement peak was followed by a relapse to levels comparable to later prehistory in the early Saxon period, including the abandonment of Fleet Marston and other locations north of the Thame. The Saxo-Norman and medieval periods show similar levels of activity at the sampled locations to the early Saxon. Figures will have been depressed by sampling bias due to the focus on greenfield sites away from inhabited settlements (only four of the locations are in historic settlement cores – Aylesbury, Bierton, Fleet Marston and Walton), but it should be noted that all of the historic settlement cores investigated have produced substantial evidence of pre-medieval occupation as have several others (Bishopstone, Stone and Weston Turville) from antiquarian finds or small-scale investigations. On balance it seems likely that most medieval settlements around Aylesbury grew up at favoured locations which had already seen long-term episodic (or conceivably continuous) occupation. Much more detailed analysis of settlement duration, extent and intensity would be needed to attempt estimates of relative population numbers but the Roman period clearly stands out as a period of intensification in common with the pattern observed across south and central England (Smith *et al* 2016).

Like any other theory, this one's purpose is to guide future research not by assuming it is right but rather by testing it. The results of such testing may refine the theory, or challenge it leading to modification or replacement by a better model. So we hope it will be useful in focussing future investigations on questions that can truly advance knowl-
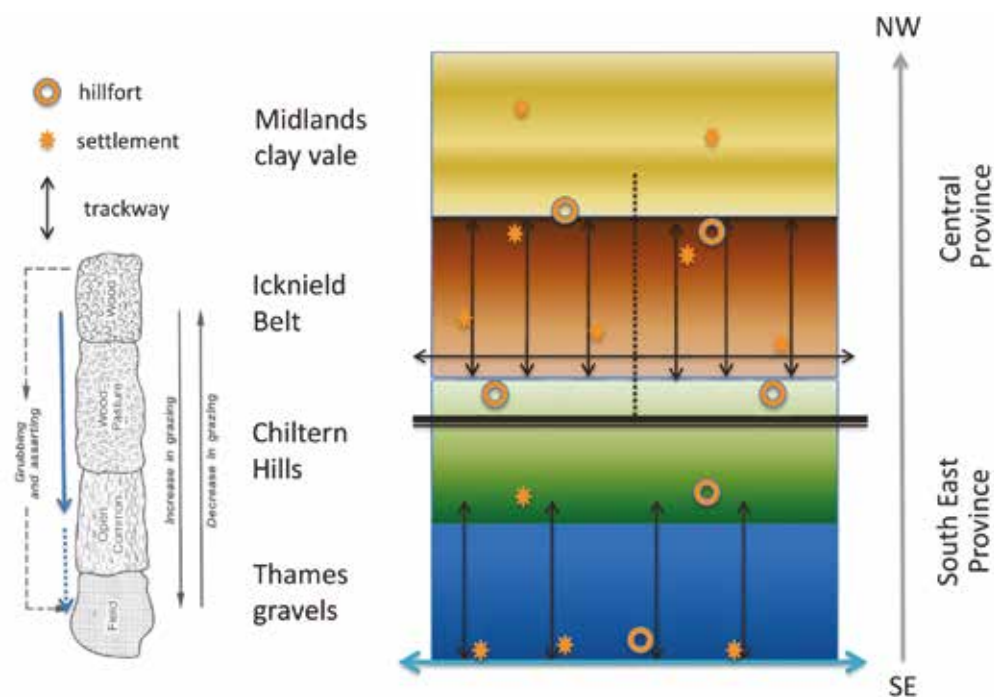
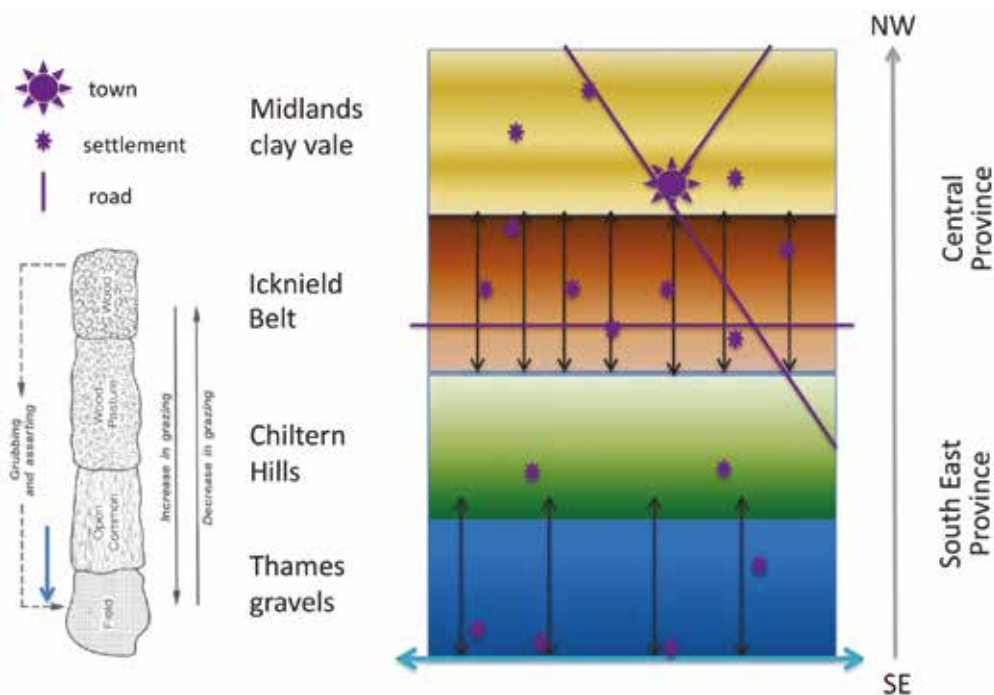FIGURE 13 Summary of the prehistoric landscape model

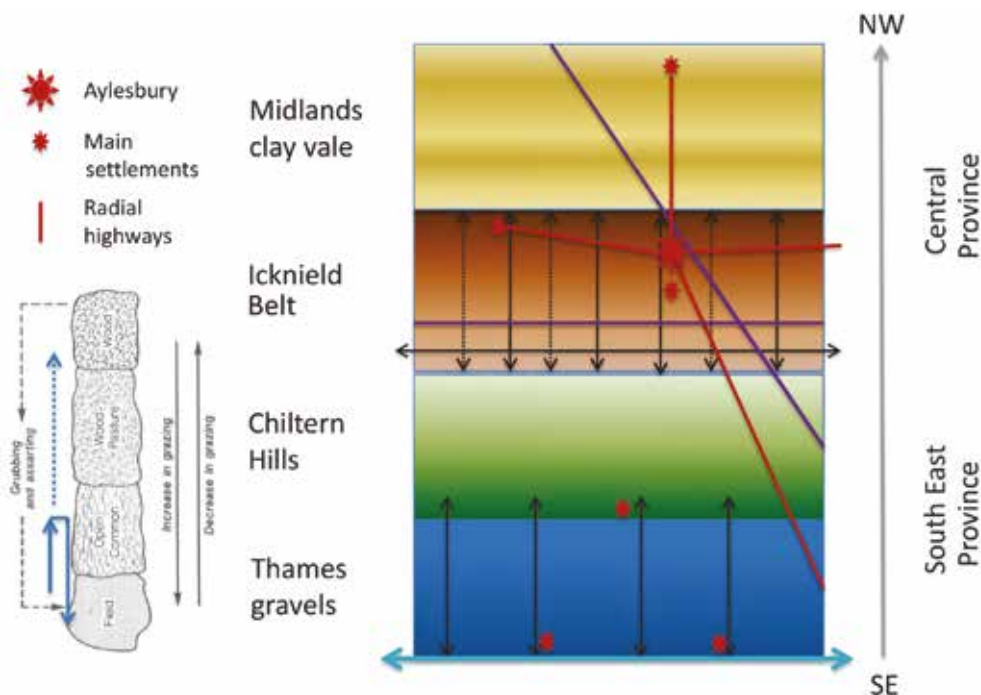FIGURE 14 Summary of the Roman landscape model

FIGURE 15 Summary of the early medieval landscape model

edge, rather than simply collect ever more data. However, on a cautionary note it must be stressed that this is only a theory of landscape history; it does not purport to cover everything that might be of archaeological interest!

NOTES

1. But as we will see later that was probably because we were looking in the wrong place!
2. That said, there has been little investigation of the 'gaps', so there might be a boundary there too, surviving now only as buried features.
3. The road through Hartwell and Stone is still named 'Portway'.
4. Wendover presents an interesting case study. It occupied a favourable topographical location in one of the Chiltern 'gaps', and was substantial enough to become a small medieval town at the junction of the London road with the Icknield Way. Traces of early routeways pre-dating the town can be picked out running from the 'gap' to Aylesbury and Bierton (Green 2009). The archaeological investigation at Hampden Fields also found Roman settlement and a trackway aligned with the co-axial system.
5. The unusually high occurrence of slaves recorded for the Bernwood vills in Domesday might be consistent with the recent use of forced labour to clear marginal land for cultivation.

TABLE 2 Summary of landscape model

Period	Chiltern Hilltops	Icknield Belt	Claylands north of the Thame
Medieval (12th to mid-14th century)	Colonization by piecemeal assarting to form dispersed pattern of linear rows and common-edge settlement with isolated manors and daughter chapels	Aylesbury and Wendover become towns set within a stable fully exploited village and open-field landscape. Parish structures fossilize historic links to Chilterns.	Creation of Bernwood Forest. Piecemeal encroachment into remaining waste and woodland creating isolated manors and daughter hamlets
Saxo-Norman	Generally still sparsely occupied with much woodland mainly on clay with flints used for swine. Landscape managed from Icknield Belt villages.	Medieval settlement pattern, parish boundaries and open field landscape in place. Royal estate centred on Aylesbury heading the 3 (or 8) 'Hundreds of Aylesbury'. Radial road network centred on Aylesbury	Colonization to form nucleated villages with open fields
Middle Saxon	Sparsely occupied (extensive woodland or waste?)	Minster at Aylesbury (late C7th?). Origins of radial road network centred on Aylesbury? Creation of open fields?	Sparsely occupied (extensive woodland or waste?)
Early Saxon	Sparsely occupied (woodland regeneration?)	Settlement continues on a minority of RB sites and begins on some sites that become medieval villages. The former are abandoned in/by Middle Saxon. Aylesbury mentioned as British 'town'. 'Aylesbury cluster' of pagan cemeteries references co-axial trackways and Roman roads.	Sparsely occupied. (Chronology of RB settlement abandonment uncertain) (woodland regeneration?)
Roman	Sparsely occupied (farmed from villas in Chiltern valleys and along Icknield Belt?)	Villas and non-villa agricultural settlements alongside co-axial trackways and linked laterally by Lower Icknield Way Roman road. Diversification of rural economy.	Fleet Marston small town nexus for road network. Non-villa settlement, largely unbounded landscape away from settlement 'closes'.
Iron Age	Hillforts, Grim's Ditch major land boundary divides the hills north from south and implies open contested countryside? Upper Icknield Way functional?	Hillforts, unenclosed settlement, co-axial trackways developing	Unenclosed settlement, largely unbounded landscape
Later Bronze Age	Ringforts and cross-ridge dykes? Upper Icknield Way functional?	Ringforts, unenclosed settlements, origins of co-axial trackways?	Sparsely occupied (open rough grazing?)

References

Avery BW 1964 *The Soils and Land Use of the District around Aylesbury and Hemel Hempstead.* HMSO (London)

Brady K & Biddulph E 2017 *Aylesbury Berryfields MDA: Post-Excavation Assessment and Project Design.* Oxford Archaeology, ref 6347 (unpublished)

Bull EJ 1993 The Bi-Axial Landscape of Prehistoric Buckinghamshire, *Recs Bucks* **35**, 11–18

Brown I 2009 *Beacons in the Landscape. The Hillforts of England and Wales.* Windgatherer Pres (Oxford)

Cotswold Archaeology 2016 *Land at Stratford Close, Aston Clinton, Buckinghamshire: Post-excavation and Updated Project Design*

Dark K 2000 *Britain and the end of the Roman Empire.* Tempus (Stroud)

Farley ME 2010 Saxon Buckinghamshire AD 410 – 1066, *in* ME Farley (ed.) *An Illustrated History of Early Buckinghamshire.* Buckinghamshire Archaeological Society (Aylesbury)

Farley M & Jones G 2012 *Iron Age Ritual: a hillfort and evidence for a minster at Aylesbury, Buckinghamshire.* Short Run Press (Exeter)

Farley ME, Nash D & White RF 1981 A Late Iron Age and Roman Site at Walton Court, Aylesbury. *Recs Bucks* **23**, 51–75

Framework Archaeology 2006 *Landscape Evolution in the Middle Thames Valley, Heathrow Terminal 5 Excavations, Perry Oaks, Vol. 2,* Framework Archaeology Monograph (Oxford & Salisbury)

Green D 2009 *Buckinghamshire Historic Town Assessment Report: Wendover* http://old.buckscc.gov.uk/media/1612714/Wendover-Final-Report.pdf

Hall D 1995 *The Open Fields of Northamptonshire.* Northamptonshire Records Society (Northampton)

Henig M & Booth P 2000 *Roman Oxfordshire.* Sutton Publishing (Stroud)

Hepple LW & Doggett AM 1994 *The Chilterns.* Phillimore (Chichester)

Masefield R 2008 *Prehistoric and Later Settlement and Landscape from Chiltern Scarp to Aylesbury Vale. The archaeology of the Aston Clinton Bypass, Buckinghamshire.* BAR British Series **473**. Archaeopress (Oxford)

Morris M 2017 *Uncovering the Lower Icknield Way: An archaeological excavation at Stablebridge Road, Aston Clinton, Buckinghamshire.* Univ Leicester Archaeol Services (draft)

Parkhouse J 1997 A Hoard of Late Roman Pewter from Fleet Marston, *Recs Bucks* **39**, 155–164

Rackham O 1976 *Trees and Woodlands of the British Landscape.* (London)

Roberts BK & Wrathmell S 1993 *An Atlas of Rural Settlement in England.* English Heritage (London)

Rippon S, Smart C & Pears B 2015 *The Fields of Britannia: Continuity and Change in the late Roman and early medieval landscape.* OUP (Oxford)

Simmonds C 2015 *A Late Iron Age and Roman settlement on land at College Road, Aston Clinton, Buckinghamshire.* MOLA report no. 15/146

Simmonds C 2016 *Archaeological trial trenching: Aylesbury Woodlands, Buckinghamshire (Phase 1).* MOLA report no. 16/201

Smith A, Allen M, Brindle T & Fulford M 2016 *The Rural Settlement of Roman Britain.* Britannia Monograph Series **29** (London)

Summerfield-Hill C 2012 *Archaeological Excavation: Buckinghamshire County Museum, Church Street, Aylesbury, Buckinghamshire.* Archaeological Services & Consultancy rep. 1508/ACM/1 (unpublished)

Thirsk J 1984 *The Agrarian History of England and Wales. Vol. 5, 1640–1750.* Regional Farming Systems. Cambridge University Press.

Thorpe S 2014 *Stoke Mandeville Hospital Care Home: Archaeological Investigations. Post-Excavation Assessment of Potential for Analysis and Updated Project Design.* Network Archaeology report 14005

Wakeham G & Bradley P 2013 'A Romano-British Malt House and other remains at Weedon Hill, Aylesbury' *Recs Bucks* **53**, 1–44

Walford J 2015 *Archaeological geophysical survey of the proposed 'Aylesbury Woodlands' development site between Broughton and Aston Clinton, Buckinghamshire.* MOLA Report no. 15/189

Wessex Archaeology 2013 *Land South East of Aylesbury, Buckinghamshire. Area 5: Assessment of Archaeological Significance.* Wessex Archaeology report 79253.03

Williamson T 2008 Co-Axial Landscapes: Time and Topography *in* P Rainbird (ed.) *Monuments in the Landscape.* Tempus (Stroud)

Yates DT 1999 Bronze Age field systems in the Thames Valley, *Oxford J Archaeol* **18(2)**, 157–170