
The Bran Ditch: Early Iron Age Origins and Implications for Prehistoric Territories in South Cambridgeshire and the East Chilterns

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Recent excavations by Oxford Archaeology East at the Bran (or Heydon) Ditch on the parish boundary between Melbourn and Fowlmere uncovered three parallel ditches running on broadly the same alignment as the Anglo-Saxon dyke. They were tentatively dated to the Early Iron Age on the basis of small quantities of associated pottery and limited radiocarbon analysis. Perhaps functioning as a boundary marker associated with the Icknield Way and Ashwell Street, these features may provide support for the long-held belief that the Cambridgeshire Dykes re-established prehistoric territorial boundaries that once divided and controlled parts of the Icknield Belt routeway. Furthermore, this paper suggests that the east Chiltern dykes and ditch alignments – hitherto treated as a distinct phenomenon – may have been part of a continuum that stretched from Luton north-eastwards through Cambridgeshire, influencing the construction of the Cambridgeshire Dykes.

Introduction

The Cambridgeshire Dykes, comprising four monumental linear earthworks in the county's south and east (the Bran (or Heydon) Ditch, Brent Ditch, Fleam Dyke and Devil's Dyke; Fig. 1), have been the subject of much study and excavation during the past two centuries, most recently in the 1990s. The latter campaign brought scientific dating and environmental analysis to bear on the monuments and largely confirmed an Early Saxon date for their construction, with a probable late 6th-century AD origin for the construction of the first phase of the Fleam Dyke (Malim *et al.* 1996). The Dykes' function has generally been assumed to be defensive, largely designed to thwart the movement of cavalry in the context of 'British' incursions into East Anglia. The earthworks would have cut off or controlled the 'Icknield Belt', a band of ancient trackways paralleling the scarp of the east Chiltern Hills and the Essex Boulder Clay plateau.

However, there has long been a suspicion that the Cambridgeshire Dykes may have had earlier origins, given their resemblance to prehistoric land divisions and their proximity to the east Chiltern dykes and ditches of the later Iron Age in Hertfordshire: indeed, early ditches found adjacent to the Bran Ditch in the

early 20th century have previously been interpreted as forming part of the east Chiltern system, which marked Iron Age territories (Bryant and Burleigh 1995).

The Bran Ditch and its Forerunners

The Bran Ditch was the focus of archaeological work in the winters of 2014–15 and 2015–16, during investigations at Black Peak Farm. This earthwork is the westernmost and smallest of the Cambridgeshire Dykes, some 2–2.4m deep with steep sides and a flat base over 2m wide and a bank on its eastern side. No dateable material relating to the Bran Ditch's construction or initial use has ever been recovered, although an origin between the 5th and 7th centuries seems likely: a substantial group of Anglo-Saxon to early medieval burials was found adjacent to it (Lethbridge and Palmer 1928). The ditch can be traced for a little over 5km from the village of Heydon in the south-east at a height of *c.* 120m OD on the edge of the Essex plateau, descending north-westwards down the scarp, crossing the chalk plain and the Icknield Belt at around 40m OD. For its northern 950m, it turns slightly to the north, terminating at Black Peak, a slight hillock adjacent to chalk springs at around 25m OD (Fig. 2). Black Peak is also the site of a group of Iron Age enclosures (Welsh in Malim *et al.* 1996, fig. 6).

At least two smaller ditches are known to have lain beneath the Bran Ditch's bank or between the ditch and bank, having been observed at several sections between the Royston-Newmarket road and the ditch's northern turn (e.g. Fox and Palmer 1926, figs. 4 and 5; Lethbridge and Palmer 1928; Palmer *et al.* 1932; Figs 2 and 3). These features were recorded in 1923 in Fox's Section D (170m south-east of Area 59) as two parallel ditches and perhaps as a 'shelf' in the eastern side of the Bran Ditch, in his Section E and possibly in Sections F–G *c.* 1.2km to the south-east. A small cemetery was found cutting into one of the early ditches (Palmer *et al.* 1932; marked as 'Lethbridge 1931' on Fig. 2): although originally identified as sub-Roman, a re-examination of the pottery associated with the graves indicates a Late Roman date (A. Lyons, pers. comm.).

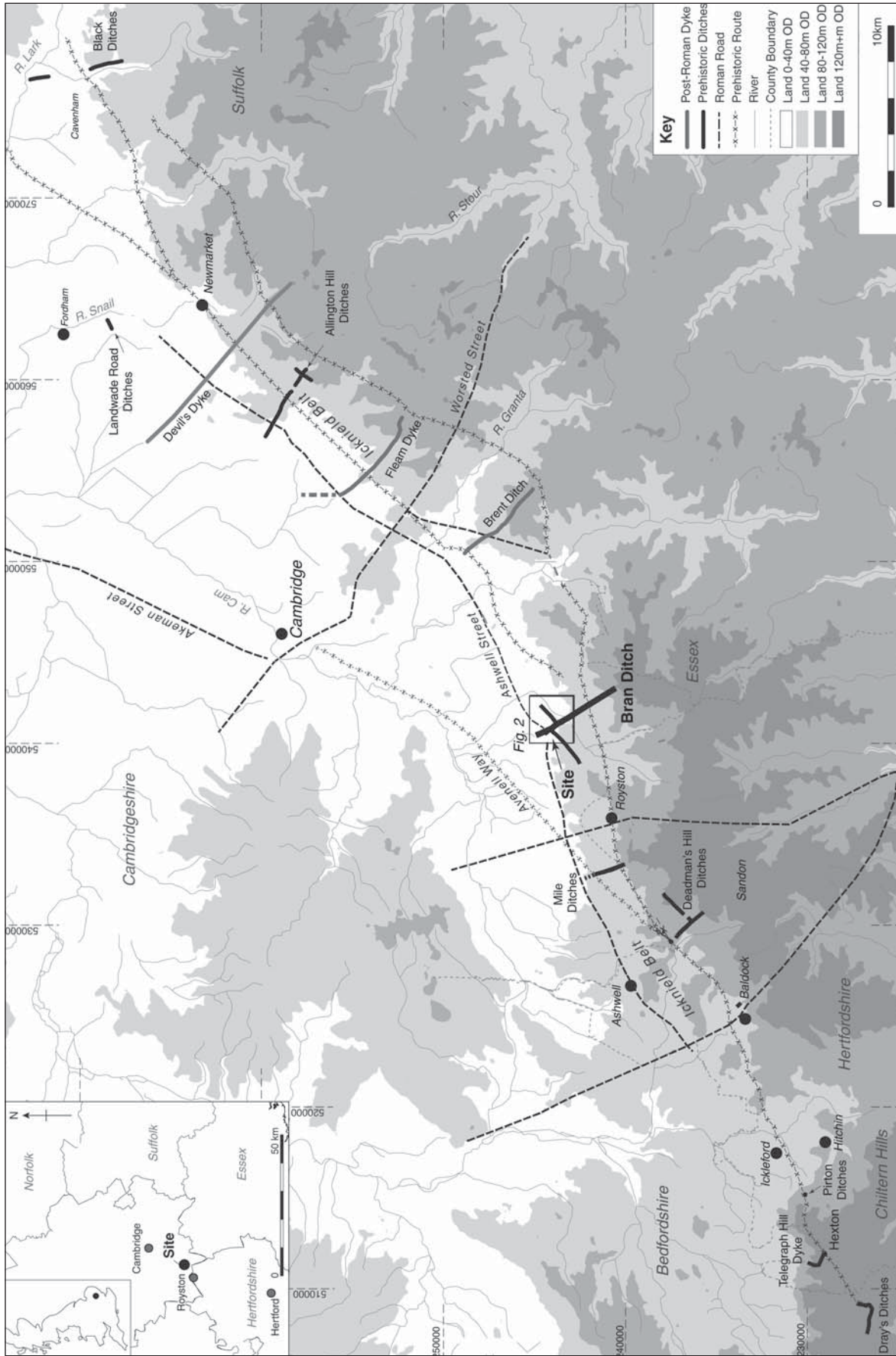


Figure 1. Location map showing the Cambridgeshire Dykes and the east Chiltern prehistoric ditches.

Near Black Peak, a possible revetment trench ran parallel to the bank on its inner side (to the north-east of the ditch) but no earlier ditches were seen (Welsh in Malim *et al.* 1996, fig. 8). The distance between this possible trench and the generally concave-based ditches to the south suggests that they were not part of the same feature.

The recent archaeological work at Black Peak Farm comprised geophysical survey, evaluation trenching and targeted small-scale excavations on the western side of the Bran Ditch (Ladd 2016; Fig. 2). This uncovered Roman occupation focused around a track that followed the course of the earlier ditches, with a group of enclosures and other features lying at the track's junction with Ashwell Street (previously recorded as cropmarks; CHER 4264, 8625, 8918).

However, the most significant result was the characterisation of several smaller parallel ditches that deviated from the line of the Bran Ditch where it turned to the north-east, suggesting the presence of a preceding boundary on a straighter course. Up to eight such parallel ditches were recorded (and traced via geophysics between excavation trenches) over a distance of some 470m in a zone 20–30m wide: of these, five were attributed to the Middle Iron Age to Roman periods when they served as trackside ditches. The gaps between the three ditches assigned to the Early Iron Age (Ditches A–C, Fig. 4; Ditch A continued southwards as Ditch F, Fig. 5) varied between 4m and 6m. What may have been the earliest feature lay to the west (Ditch A) and had a near v-shaped profile – it was 1.4m wide and 0.6m deep. The two adjacent ditches were considerably smaller and shallower, with flat-based profiles. These features appear to equate with the ditches that had been found running parallel to or beneath the Bran Ditch in the 20th century. One ditch (Ditch A) may have been recut in the Middle Iron Age. A ditch recorded to the west (Ditch K) appears to have been a detached recut of the Middle Iron Age (replacing a smaller forerunner, Ditch I): no finds were recovered from it.

To the north, the ditches appeared to terminate at Ashwell Street, within the Roman settlement, although an unexcavated ditch extending further north was recorded by geophysics and it is possible that the early ditches continued towards the springs at Black Peak (Fig. 2). To the south-east their extents are unknown, since they were truncated by the Bran Ditch. The stream (Wardington Bottom) adjacent to the modern A505 is a possible candidate for their southern destination, a possibility raised by consideration of the characteristics of other earlier Iron Age multi-ditched boundaries (see below). The combined evidence indicates a minimum length for the triple ditches of at least 1km and up to 1.6km. The presence of the Early Iron Age ditches clearly influenced the landscape into the Roman period, when they defined a trackway flanked at its northern end by rectangular enclosures (Trenches 58 and 31, Enclosure Ditches D and E, Fig. 4).

As Table 1 indicates, two of the ditches produced small amounts of exclusively Early Iron Age pottery

(Ditches B and C), while Middle Iron Age pottery came from the upper fills of two other ditches, one of which contained earlier material in its lower fill. The Early Iron Age sherds are flint-tempered fabrics, with a single example decorated with a fingertip-impressed cordon.

Table 1. Early and Middle Iron Age pottery from the precursor and associated ditches.

Ditch	Fill?	Date	Qty	Weight
A	Primary fill	EIA	1	1
A	Primary fill	EIA	3	14
A	Secondary fill	EIA	5	8
A	Final fill, or recut fill	MIA	8	113
B	Primary fill	EIA	1	3
B	Secondary fill	EIA	2	1
C	Single fill	EIA	2	31
D	(Residual, Roman context)	EIA	2	12
D	(Residual, Roman context)	EIA	1	3
H	Secondary	MIA	11	58
Total			36	244

A horse tooth from the basal fill of Ditch F in Trench 59, Fig. 5 (which may equate with Ditch A in Area 58) produced a radiocarbon date in the Early Iron Age. The flat calibration curve for the period results in a convoluted range of calibrated dates, all within the Early Iron Age range of *c.* 800–400 BC (510–405 cal BC at 68.2% probability or, with 95.4% probability in the ranges 735–689 cal BC (8.6%); 663–648 cal BC (2.1%); and 546–397 cal BC (84.7%; SUERC-65107).

The small quantities of pottery recovered from the ditch fills (a total of 36 sherds, weighing 244g), mean that residuality cannot be ruled out. However, the absence of later material may indicate that the suggested date is reliable.

The fieldwork also provided information on various adjacent ditches. What was perhaps the earliest of the parallel ditches (Ditch F, in Trench 59) may have been contemporary with a ditch running perpendicular to it (Ditch G), of which only a short segment survived, its full extent being unknown. An apparently later phase of this ditch (Ditch H, Figs 2 and 5) terminated in the centre of Trench 59, on the western side of Middle Iron Age Ditch K. It contained Middle Iron Age pottery in its secondary fills and it (or a version of it) remains visible as cropmarks extending WSW past a group of ring ditches for *c.* 3.4km as far as a cluster of barrows (TL 38247 41886). A parallel counterpart (Ditch L, Fig. 2) extended ENE for at least 1.6km from a point on the Bran Ditch approximately 480m to the south-east.

Iron Age Triple Ditches

The potential trio of Early Iron Age ditches preceding the Bran Ditch sat within a wider landscape that was divided by long parallel dykes and ditches along the Chiltern Hills and the Icknield Belt in Bedfordshire,

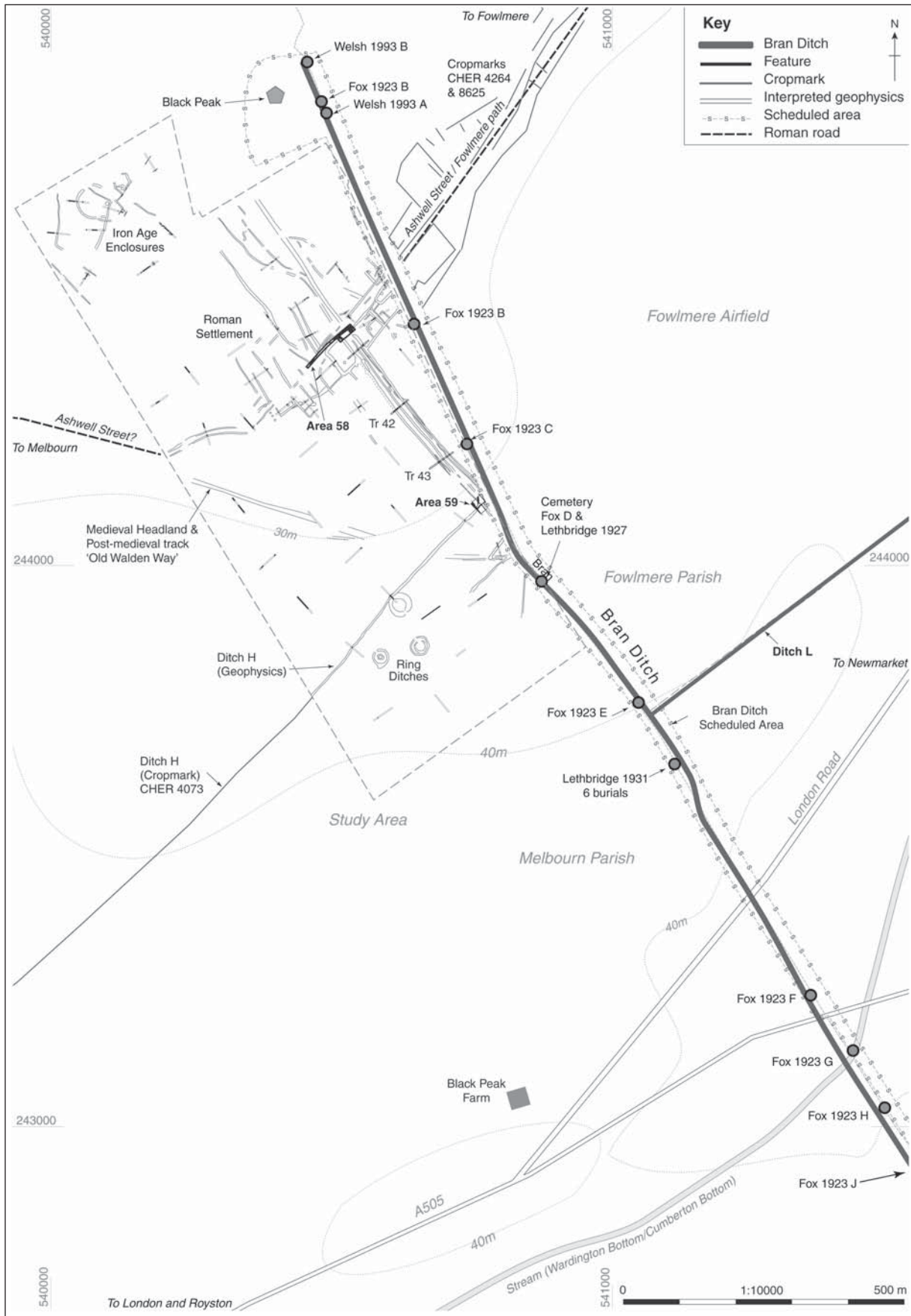
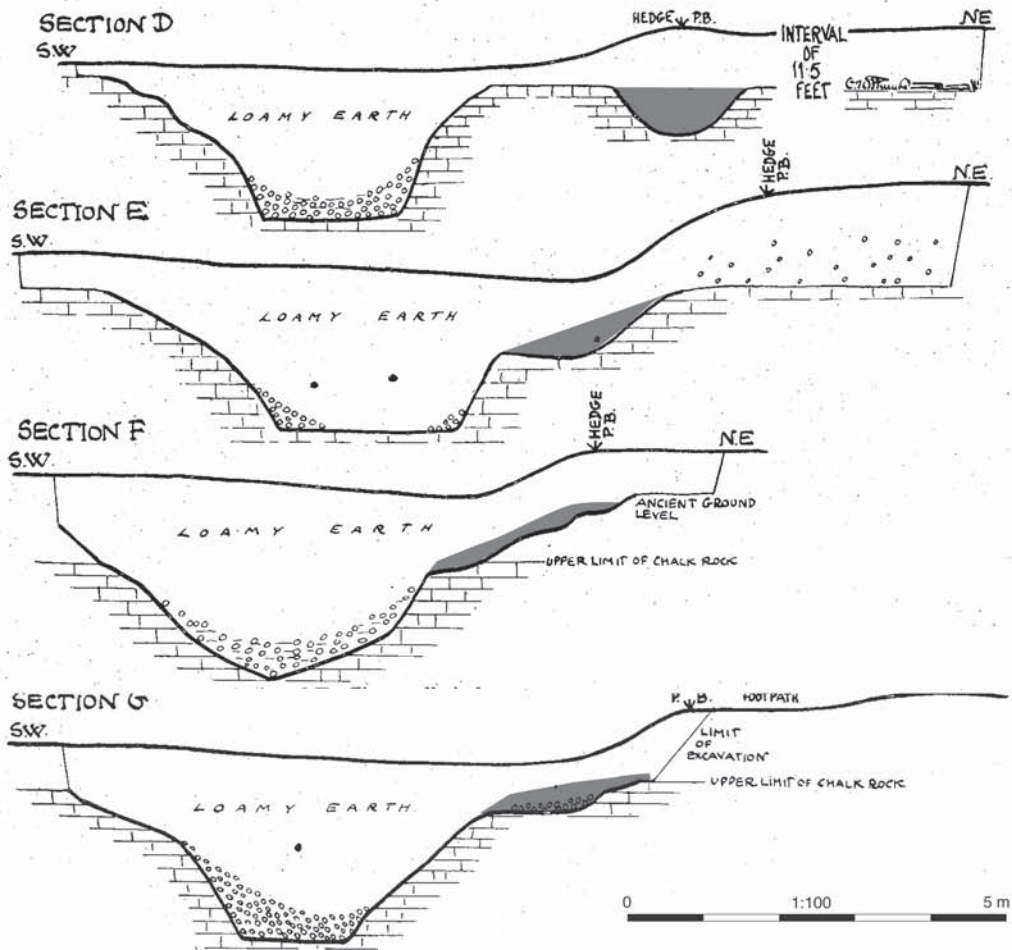
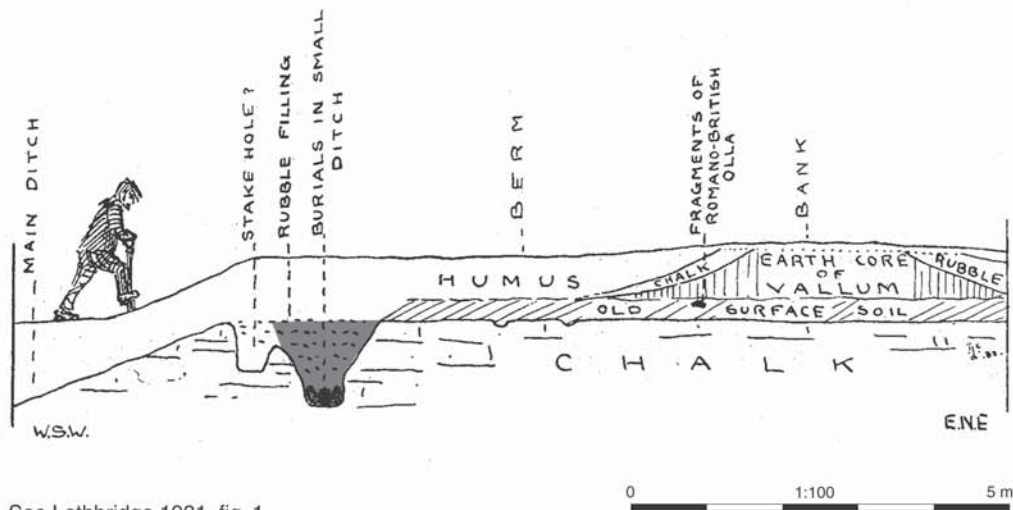


Figure 2. Site location showing the Bran Ditch, evaluation trenches.



See Fox and Palmer 1926, figs 4 and 5



See Lethbridge 1931, fig. 1

Figure 3. Previous observations of possible ditches beneath the Bran Ditch (sections are located in Fig. 2).

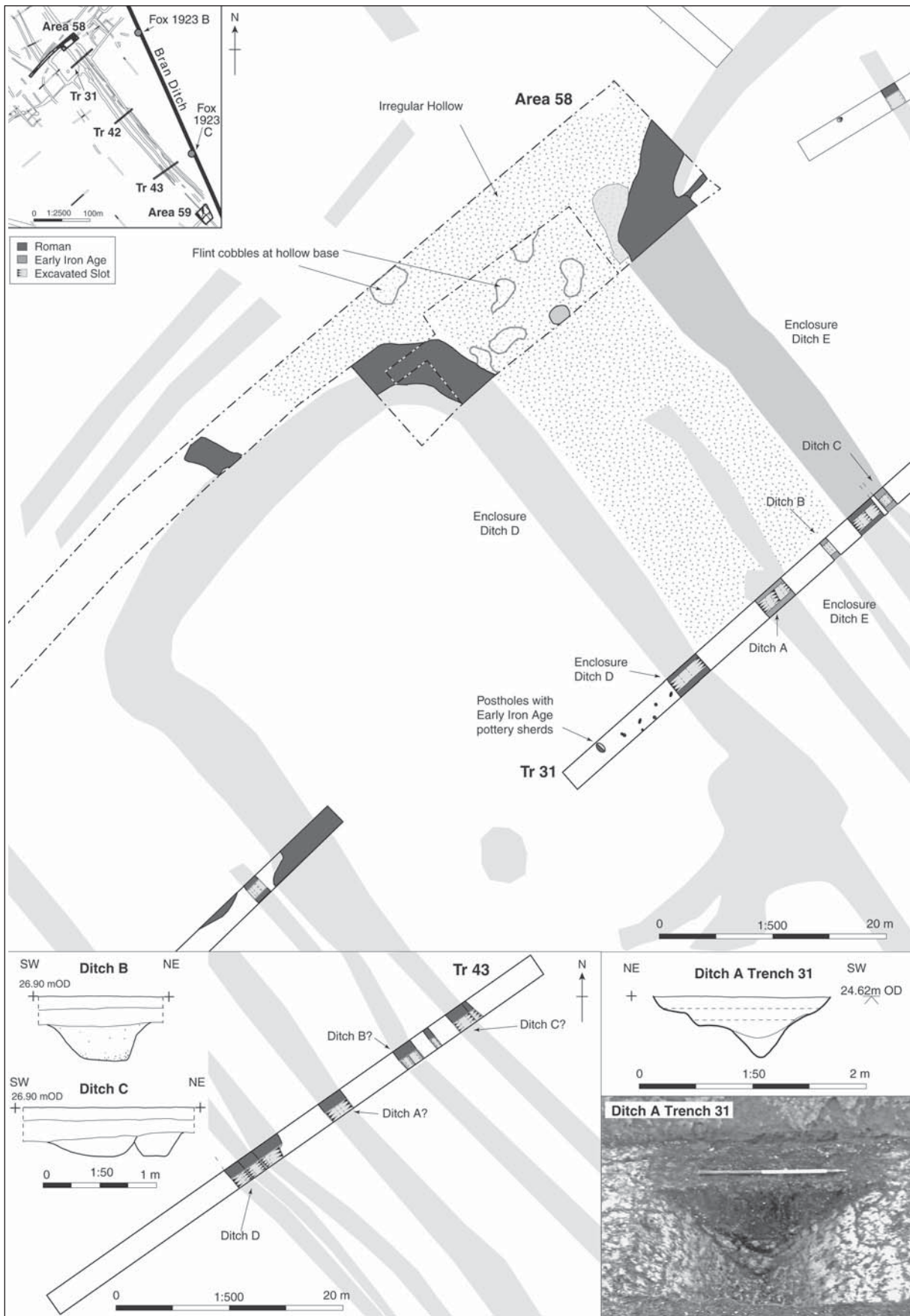


Figure 4. Black Peak Farm, Area 58 and Trenches 31 and 43.

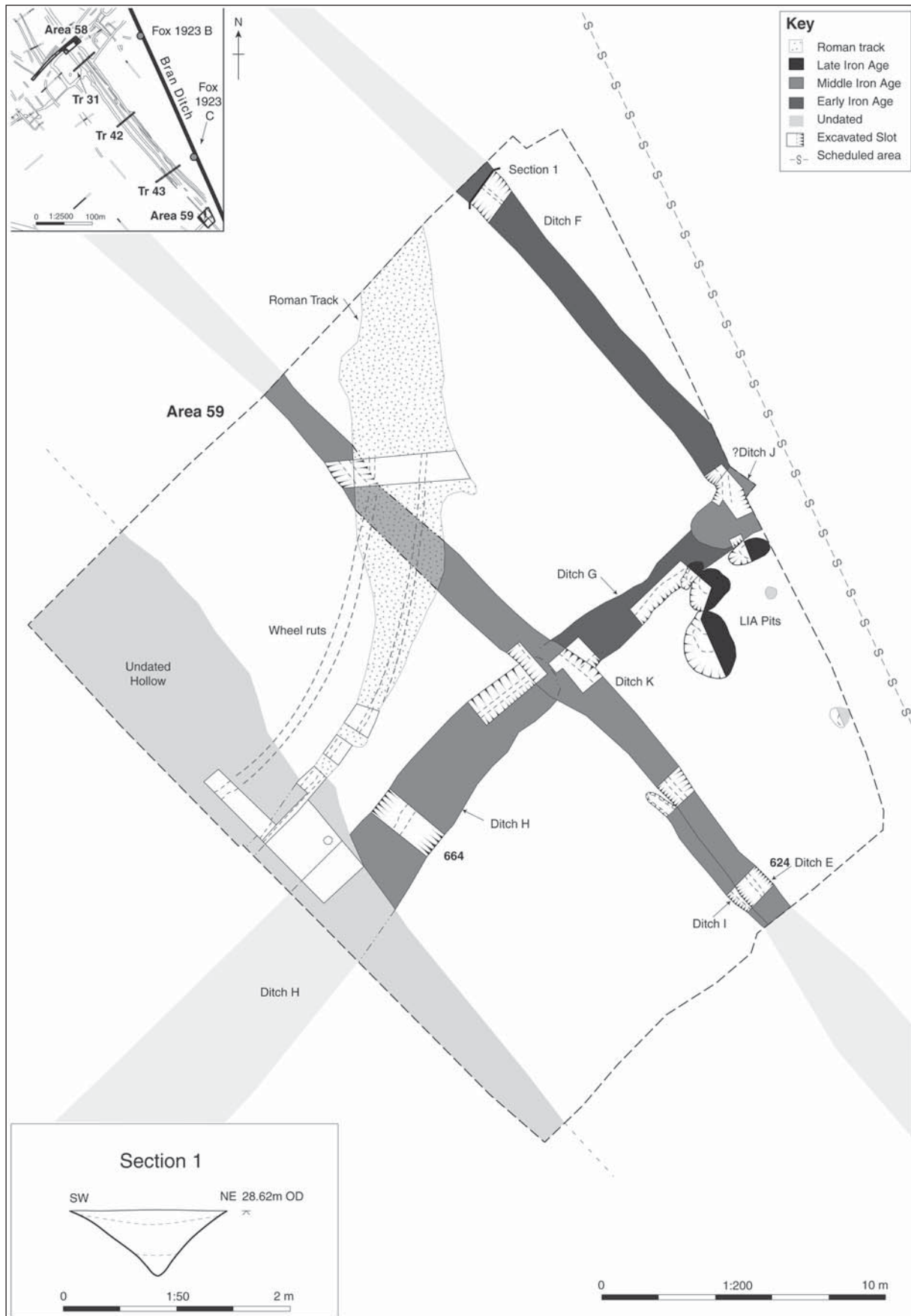


Figure 5. Black Peak Farm, Area 59.

Hertfordshire and Cambridgeshire (Fig. 1). These have been described and synthesised by Bryant and Burleigh (1995) in three groups: contour dykes (collectively known as Grim's Ditches) found in the western Chilterns; triple ditches or dykes crossing the Icknield Belt in the eastern Chilterns; and a third category of multiple ditches running parallel to the Icknield Way. All of the known triple ditch systems noted below have one ditch that is wider and deeper than the others and it is possible that in later periods these may have been re-cut. This appears to have been the case at the Bran Ditch (where Ditches A, B and C appeared to be contemporary and the much larger western Ditch A may have been recut in the Middle Iron Age).

The most substantial and easternmost of the putative east Chiltern boundaries has many similarities with the potential forerunners of the Bran Ditch. Known as the Mile Ditches, it consists of a triple ditch alignment (originally between four banks) some 8.4km to the west of the Bran Ditch (Fig. 1). The earthworks extended 2.65km from Therfield Heath west of Royston in Hertfordshire NNW towards Litlington in Cambridgeshire, terminating amongst a cropmark complex of droveways and ring ditches at TL 32391 42569 (Jonathan Last, pers. comm.). Excavations close to the A505 in 1978 (TL 403 333) revealed three distinct parallel ditches in a zone around 30m wide with 5–8m of space between each ditch (Burleigh 1980). As with the three Early Iron Age ditches at the subject site, the westernmost ditch was by far the largest of the three: its primary fill produced a radiocarbon date in the 1st or 2nd century BC (Burleigh 1995, 105). However, this ditch may represent the later formalisation of pre-existing triple ditches which took a more meandering line (Bryant and Burleigh 1995, 26).

Five kilometres south-west of the Mile Ditches lies another comparable triple ditch system (albeit to the south of the Icknield Way) at Deadman's Hill, near Slip End, Ashwell. These features remain unexcavated, being visible only as cropmarks, with the exception of an undated ditch (2m wide and 0.8m deep) recorded during excavation for a gas pipeline at TL 293 373 (Burleigh and Stephenson 2000, 26). Again, the westernmost of the three cropmarks was clearly the largest of the three, and they were set c. 8–9m apart. They extend for at least 1.2km with at least one of their number reaching 2km in length. The Hertfordshire HER entry also records further ditches either side of the alignment (HHER 2599). A perpendicular linear cropmark at least 2.3km long appears to have formed a return to the north-east (from TL 301 362 to TL 317 379) and may also have become fossilised in a short section of field boundary (TL 304 365 to TL 305 367). The western, longer ditch of the triplet appears to have extended some 800m further south-east than the others, beyond the line of the perpendicular ditch. Such a co-axial arrangement was mirrored at the Bran Ditch site (Ditches A–C, H and L).

The remaining east Chiltern multi-ditched lines to the west were shorter, but were also associated with

and cut across the Icknield Belt. Those at Wilbury Hill west of Hitchin may represent a later Iron Age track, although earlier undated cuts were recorded (HHER 6146). There is a 200m triple-ditched cropmark south of Pirton. The single dyke at Telegraph Hill has not been excavated. Four Earlier Iron Age ditches – Dray's Ditches at Bramingham, Luton – have, however, been investigated and were observed to recut a pair of Bronze Age ditches or possibly a pit alignment (Dyer 1961; Bryant and Burleigh 1995, 93).

Function and Topography

In the context of the Anglo-Saxon Cambridgeshire dykes, the purpose of long, linear, monumental ditches is usually discussed in terms of connectivity (trackways) and obstruction or control (boundaries/barriers/toll collection; e.g. Malim *et al.* 1996). Although often referred to as boundaries, the same variant interpretations apply to the smaller scale Iron Age multi-ditched lines. If they functioned as defining trackways, each set of ditches can be viewed as isolated features, perhaps linking lowland and upland areas. If they served as parallel boundaries, however, they can be understood as elements of a coherent system. Of course, both functions are possible and may have evolved over time.

For the east Chiltern system, Dyer (1961) put forward a model of six tribal territories separated by rivers and dykes, between Dray's Ditches near Luton and the Bran Ditch (assuming an Iron Age date for the ditches found by Fox alongside the Bran Ditch). Bryant and Burleigh (1995, 93) refined this to suggest a system of up to eight sub-divisions (excluding rivers) within the same area, almost certainly with several phases of subdivision forming seven territories 3.5–5.5km wide. They suggested that these were comparable with the Bronze Age to Iron Age territorial boundaries of the Tabular Hills in North Yorkshire. In that case, the territories were each apportioned lowland access to water and upland grazing, although the boundaries in the east Chiltern system are not as uniform and occupy a variety of topographic situations (*ibid.*). The divisions have also been suggested to have related to hillforts or enclosed settlements at the northern ends of such boundaries (e.g. Dyer 1961; see further discussion below), or between them, although this interpretation is problematic since these sites varied in form and would have been prominent at different times (Bryant and Burleigh 1995, 94).

Figure 6 shows the landscape profiles across which the ditches ran. The primary purpose of some of the Iron Age multiple ditches seems to have been to connect distinct places and/or topographical features such as springs and grazing land, defining tracks or droveways. Clearly, the Bran Ditch precursors were used to define a trackway by the Roman period (at least in their northern part) if not before. These ditches may have terminated c. 350m short of the chalk springs at Black Peak which feed the River Rhee, having crossed a slight depression at around 25m

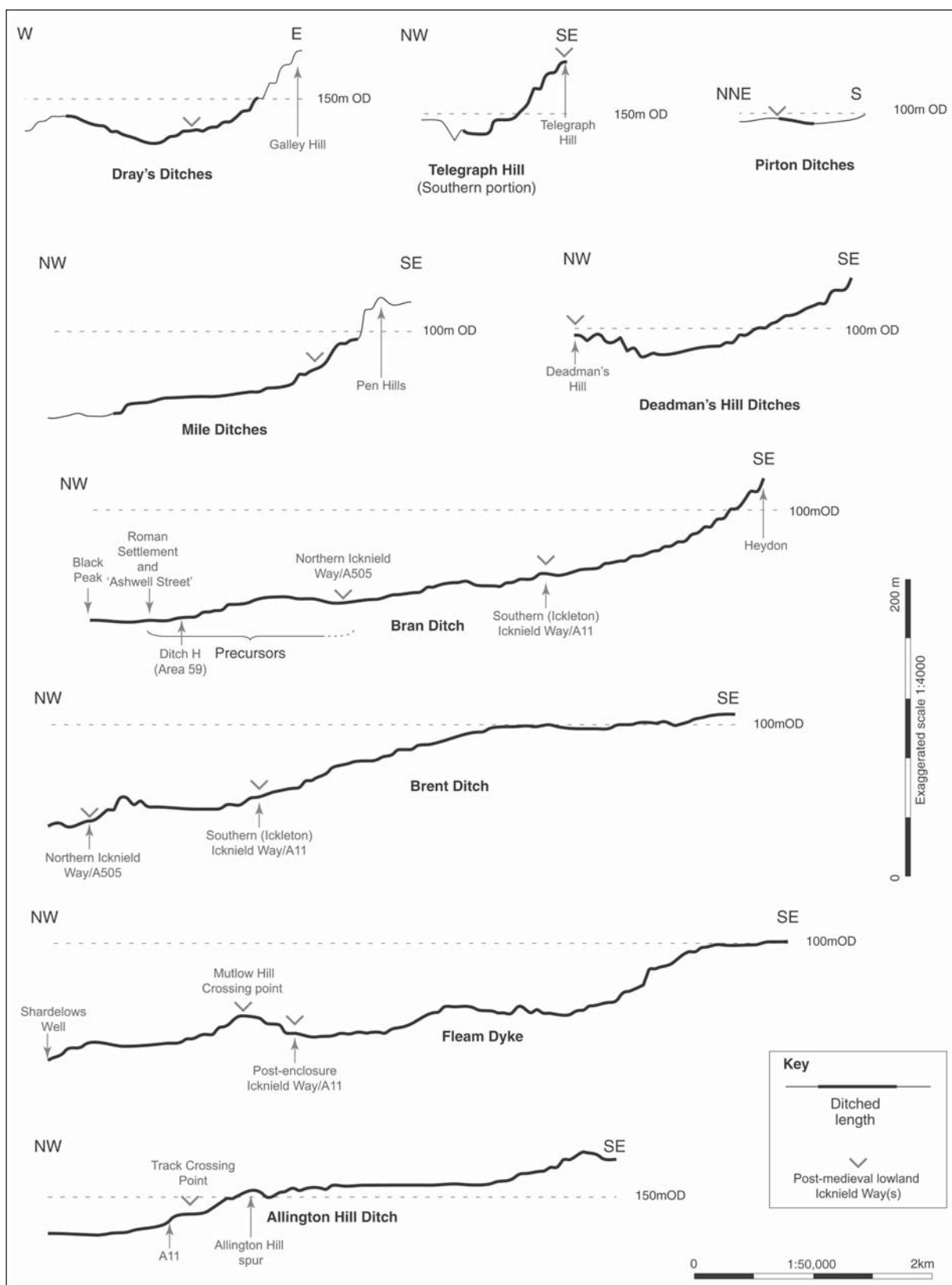


Figure 6. Landscape profiles of the east Chiltern ditches and the Cambridgeshire Dykes.

OD (excepting the ditch recorded by geophysics that continued northwards). Lethbridge's 1931 excavation took place at the peak of a low ridge around 40m OD, perhaps suggesting that they traversed this slight valley. Their possible appearance in Fox's more southerly Trench F would bring them to the stream on the old Essex/Cambridgeshire border (Wardington Bottom/Cumberton Bottom before their confluence). The position of this stream would have forced eastward movement on its northern side towards the precursor ditches. As such, they would have spanned the bottleneck between two tributaries of the River Rhee, across a ridge rather than a depression or valley.

It is notable that the southern ends of the Mile Ditches seem to splay out, as if to funnel livestock onto their length (and thereby across the Icknield Way zone). These features ran from upland grazing on Therfield Heath lying at *c.* 95m OD towards chalk springs near Litlington at *c.* 40m OD. At Bassingbourn near the Mile Ditches, a sequence of parallel Early or Middle Iron Age ditches aligned NNE-SSW leading directly to spring heads (Phillips 2008) seem designed specifically for droving. However, the triple (or more) ditch format seems less suited to that function. Given this context, it is possible that at least some of the linear ditch groups were directly associated with transhumance practices, facilitating the (seasonal) movement of livestock across the Icknield Belt (from south to north), at the same time controlling movement along its course (from west to east).

The other east Chiltern multiple ditches do not appear to have connected distinct places or environments. In many cases, their topography suggests that they served as boundaries that controlled bottlenecks along the Icknield Belt (see Figs 1 and 7) or perhaps markers that emphasised sections along longer boundaries, potentially in relation to the territories suggested by Bryant and Burleigh. Dray's Ditches (the westernmost example) spanned a shallow valley, with either end at 135m OD, dropping to *c.* 120m at their centre, through which the modern Icknield Way path passes. The undated dyke at Telegraph Hill reached from a hill-top (crossed by the Icknield Way path) at *c.* 180m OD, crossing a slight berm around 145m OD before descending a combe to around 100m OD. The short Pirton triple ditches cut across a very slight valley on the end of the Telegraph Hill ridge (and the post-medieval Icknield Way path veers around their northern end) where the landscape opens up eastwards, between the Oughton Head spring and another stream tributary of the River Hiz. Deadman's Hill sits at around 100m OD and the ditches here extended south-east across a valley down to 85m before climbing to 95m OD again, with the longer ditch reaching south-east to 135m OD. This earthwork has no obvious landmarks at either end, but spans a natural dry valley to the east of the River Ivel – it may have funnelled movement northwards, between the ditches and the river. Curiously, the Mile Ditches were positioned across lower contours off the chalk ridge than those that would have been controlled by the Deadman's Hill ditches, meaning that the two

monuments were not topographically comparable.

There are other regional examples of Early Iron Age triple ditches which may have primarily formed boundaries, including those at Ketton, Rutland (Mackie 1993) and Landwade Road, Fordham near the Cambridgeshire/Suffolk border (Connor 1996; Palmer and Cox 1996, 5). These latter ditches lay perpendicular to a Roman, and potentially earlier, road that ran along the spine of a peninsular (Mortimer 2005).

While these features – the east Chiltern ditches and Bran precursors included – could relatively easily have been surmounted or circumvented (although they would have been obstacles to, for example, wheeled carts) they would have presented a definite and distinctive three/four-ditch format, making a clearly understood statement of control over the pinch points on the Icknield Way belt and its offshoot trackways. The repeated occurrence of triple ditches, both along the Icknield Belt and elsewhere, might represent a systematic organisation of the landscape. As such, they can be readily seen as a contiguous system, now all but confirmed to extend as far east as the Bran Ditch.

The Contemporary Context

The distribution of later Early Iron Age ceramics such as the Chinnor-Wandlebury type, dating from the 5th to 3rd centuries BC, corresponds to the east Chiltern hills. The type has been found at both Ravensburgh Castle (closely associated with the Telegraph Hill dyke) and Wilbury Camp near Hitchin (Bryant 2005) – reaching as far north as the type site at Wandlebury and on into the Fen margins (Cunliffe 2005, 76) where it blends with contemporary Darmsden-Linton type ceramics. The limited radiocarbon dates available for these pottery types cover a range from the 6th to 4th centuries BC (the radiocarbon date and pottery from the Bran Ditch precursors perhaps indicating that they originated in the 5th century BC).

Figure 7 sets the ditched boundaries and dykes into the context of major Early Iron Age sites. The initial fortification of Ravensburgh Castle took place in *c.* 400 BC (Dyer 1976). Although Wilbury Camp is thought to have been constructed in the Late Bronze Age, there is evidence for a major re-fortification at *c.* 400 BC (National Heritage List for England: No.1016490). Recent work on the War Ditches hillfort south-east of Cambridge put its construction between 455 and 390 BC (Pickstone and Mortimer 2012) and Wandlebury, only 2.5 km to the south-east, is currently also dated to the 5th century BC (French 2004, 15). Small-scale excavations at Borough Hill in Sawston showed the fort's rampart banks to have been constructed onto soil layers containing two sherds of pottery of Bronze Age and Early Iron Age date. It is tempting to link the construction of such large hillforts to the construction of the multi-ditched boundaries, particularly in the wider context of hillforts as 'communal centres' associated with larger land blocks (Bradley and Yates

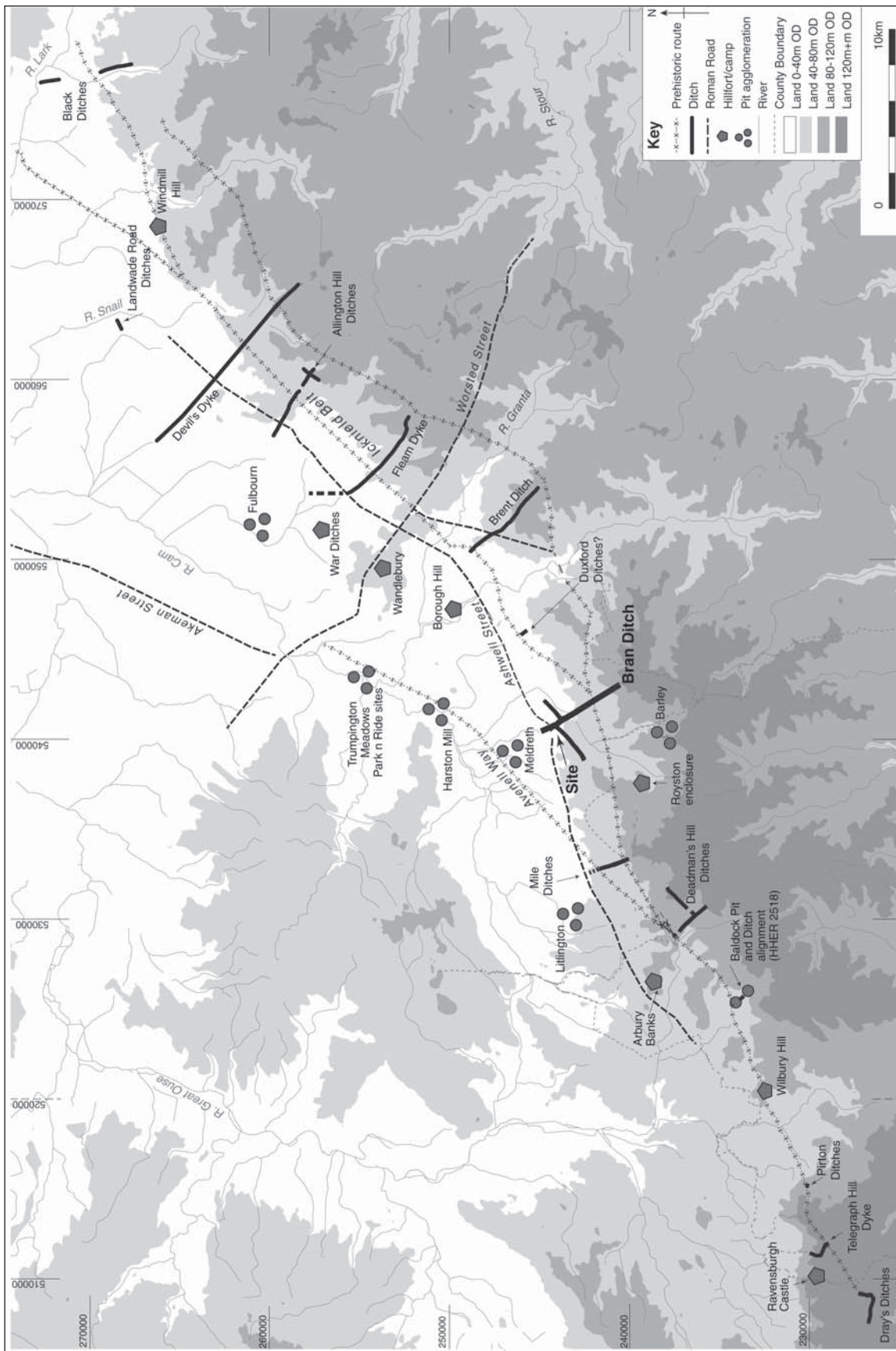


Figure 7. Ditched boundaries and dykes, with major earlier Iron Age sites in the east Chilterns and south-west Cambridgeshire. Litlington, Meldreth and Barley pit agglomerations from NAIS courtesy of Historic England.

2007, 100). It seems very likely that the system of territories in the east Chilterns extended north-eastwards at least as far as Wandlebury, with triple ditch alignments perhaps being dug at specific points along longer boundaries.

Another phenomenon of this period and this part of the region is the appearance of huge agglomerations of storage pits. Two relevant sites have been excavated in the last decade, at Trumpington Meadows/Park and Ride site (Brudenell and Dickens 2007; Hinman 2004) and at Harston Mill (O'Brien 2016). A previous excavation in the late 1950s at Barley south-east of Royston (Cra'ster 1961) revealed very large numbers of densely packed flat-based, broadly circular pits. Recent aerial photographic survey work by Historic England has revealed two further such sites within its south-west Cambridgeshire study area, at Litlington and Meldreth (Jonathan Last, pers. comm.), with a third visible on Google images from 2005 in Fulbourn (centred on TL 52205 56705). While such storage pits are recorded in small numbers in the Late Bronze Age (e.g. Mortimer 2005) these massive clusters appear to be a development of the Early Iron Age, and at present represent a site-type unique to south-east Cambridgeshire (Brudenell 2012).

Ceramic evidence and radiocarbon dating on the pit agglomerations puts the bulk of this activity at the end of the Early Iron Age, c. 450–350 BC (Matt Brudenell, pers. comm.; O'Brien 2016), the same period as the construction of the dated hillforts. The two phenomena may well be linked, and broadly contemporary with (or following on from) the construction of the putative territorial boundary ditches in the region.

The Other Cambridgeshire Dykes

Theories as to the primarily defensive purpose of Cambridgeshire's Anglo-Saxon Dykes and specifically their use to repel horsemen (Muir 1981, 159; Malim *et al.* 1996, 114) have never satisfactorily explained why the dykes made little or no attempt to hold the high ground along their length, nor why they were not constructed in the most defensible locations. The sheer scale of the Devil's and Fleam Dykes (with their massive ramparts facing south-west) and their location on the border of what was or would become the Anglo-Saxon kingdom of East Anglia, make it undeniable that an element of their purpose was defensive, even if this were in part symbolic. However, the spacings and topographic situations of the dykes suggest that their locations were not chosen purely for defence but were informed by an earlier landscape.

As now appears evident at the Bran Ditch, it is possible that the larger Brent Ditch and other dykes to the east also truncated single or triple ditched prehistoric forerunners. Chance deviations along the dykes' lines, such as at the northern end of Bran Ditch, could have allowed intermittent survival, albeit that this has not yet been tested by specifically targeted investigation.

Based on the topography of the east Chiltern ditches and of the Bran Ditch it is perhaps the more north-westerly reaches of the other three Cambridgeshire Dykes which are most likely to have coincided with earlier Iron Age triple ditched boundaries. However, if the east Chiltern ditches and the Bran Ditch precursors were placed to impede natural corridors of the Icknield Belt, it is difficult to identify similar topographic segments on the remainder of the Cambridgeshire Dykes. The segment of the Brent Ditch between Pampisford Hall and the A11 joins two low peaks (at 50 and 55m OD) across a slight valley before the land climbs to the south-east (see Fig. 6). The landscape crossed by the Fleam Dyke from near Shardelows Well (33m OD) to the barrow at Mutlow Hill (51m OD) or south-west of Mutlow Hill might also represent similar funnel points off the rising hills to the south-east. The more north-westerly reaches of the Devil's Dyke crossed similar landscape features. These sections have, however, already been the focus of investigation (Malim *et al.* 1996, figs 13, 33, 47) with only the Fleam Dyke revealing more than one phase, potentially 5th century AD at its earliest but with frequent Romano-British finds both beneath and within it. The picture east of the Bran Ditch is also somewhat clouded by the presence of Worsted Street, the Roman road which lies half way between the River Granta and the Fleam Dyke and which may also have had Iron Age origins (Malim 1996, 58). Worsted Street followed a ridge protruding 8km from the south-eastern boulder plateau towards modern Cambridge and ran between the two adjacent hillforts of Wandlebury and War Ditches (Fig. 7).

The Black Ditches, 15–20km north-east of the Devil's Dyke, are thought to be contemporary with the Cambridgeshire dykes, comprising a ditch with a berm and bank on the eastern side (Craven 2013, 12–13). Only small scale excavation has been undertaken here, but in one instance a second smaller ditch was observed, probably east of the bank, producing Late Iron Age pottery (*ibid.*). Topographically however, at no point do they resemble the east Chiltern ditches.

The distances between both the Bran and Brent Ditches, and the Fleam and Devil's Dykes are almost exactly 10km, broadly twice the distances between the east Chiltern boundaries (3.5–5.5km), and that between the Fleam and the Brent is approximately 7km. The putative Iron Age lines followed by the Cambridgeshire Dykes would then potentially appear to indicate both larger and more variably-sized territories than those on the east Chilterns. The distance from the Brent Ditch west to the River Cam – the major river crossing the Icknield Belt in Cambridgeshire – is just 2km at its narrowest and would suggest that rivers were not used as markers in the same way as ditched boundaries east of the Chilterns. Other lines, then, could be expected to mark such subdivisions.

At the midway point between the terminals of the Bran and Brent Ditches are the springs of Great and Little Nine Wells which eventually feed the Hoffer Brook that forms the boundary between Thriplow

and Whittlesford parishes. A ditch leads SSE from the springs, continuing the parish boundary, but its southern part is now lost under Duxford Airfield. Google images from 2000, 2003 and 2007 show faint traces of linear features leading SSE from Grid Reference TL 459 ('Duxford Ditches' on Fig. 7). These are in line with the boundary ditch to the north. South of the airfield the putative ditch line runs straight, under field boundaries, for approximately 2.7km.

There is a more convincing boundary, however, 6km to the east of the Fleam Dyke (4km west of the Devil's Dyke). Visible on multiple Google Earth images is a WNW to ESE aligned ditch, clearly apparent for 4.3km from close to Spring Hall, south-east of Bottisham (TL 568 596) to Partridge Hall north-west of Westley Waterless (TL 605 574). The cropmark appears to vary between 1.5m and 2.5m in width. It runs straight from Spring Hall for 1.5km into Allington Hill Farm, just north of Allington Hill itself, and for the whole of this stretch it either forms the parish boundary between Bottisham and Swaffham Bulbeck or runs parallel to it (to north and south). The ditch is marked on Figs 1 and 6 as the 'Allington Hill Ditches' and detailed in Fig. 8. In its final, easternmost stretch the ditch appears to be at its widest (and possibly therefore its least truncated) and it is here that smaller, fainter ditches can be traced running parallel to both sides of the main ditch. These parallel ditch lines are faint and discontinuous but are visible in sections over a length of some 450m – they lie *c.* 15m south of the main ditch and 5m to the north. Some 340m from the eastern terminus of the ditch, at a point where the triple ditches are visible (TL 603 577), they are crossed by a south-west to north-east aligned ditch at a right angle, in a manner similar to those at Deadman's Hill and associated with the Bran Ditch precursors.

Other Influences

Malim *et al.* (1996, 116) discussed how historical and modern footpaths emanating from the south-eastern ends of the Cambridgeshire Dykes hint at connections across the watersheds between the Cam and Granta valleys, and the Rivers Stour and Pant/Blackwater valleys. These are routes that would be taken by travellers to and from the continent, up the navigable Stour, Blackwater and Colne Rivers, over the watershed and along the Dykes into central lowland England.

The parish boundaries between Worsted Street and the Devil's Dyke, and those west of the Bran Ditch, all run parallel with the dykes, straddling the Icknield Belt, taking in lowland and higher elevations, sharing 'good and bad lands' (Malim *et al.* 1996, 116). They are generally marked by hedgelines, tracks and roads which perhaps fossilised earlier lines (such as the potential Allington Ditches) or later subdivisions between older boundaries. In the same manner, the boundaries of Litlington parish lie parallel to the Mile Ditches (1500m to the west and 400m to the east), which also appear to have influenced the layout of

medieval and post-medieval furlongs in the parish (Hesse 2000, 55). It is evident that the Bran Ditch precursors (reflected in the line of the Anglo-Saxon dyke) eventually informed the Fowlmere/Melbourn parish boundary. The Mile Ditches survived as earthworks within fields well into the 1930s (Burleigh 1980, 25). In the Early Saxon period these would have been clearly visible along their whole length. If parallels were present in the rest of the Cambridgeshire Icknield Belt, they would have been obvious candidates for re-trenchment, remodelling, extension and truncation, fossilising their lines.

Conclusions

The latest work at the Bran Ditch, which suggests an Early Iron Age date for a triplet of pre-existing ditches, brings into focus the possible linkage of the east Chiltern boundaries and the Cambridgeshire Dykes. A newly identified but similar multi-ditched boundary adjacent to Allington Hill between the Fleam and the Devil's Dykes, potentially extends the Iron Age boundary system further north-east, complementing the distributions of Chinnor-Wandlebury pottery and, perhaps, the pit agglomerations of the Cam Valley.

Further work clearly needs to be done, not least on exploring the similar features at Duxford Airfield between the Brent and Bran Ditches. While the two monument types – Iron Age triple-ditched boundaries and Anglo-Saxon Dykes – have very different characters this work has begun to draw them together. The evidence makes the prospect of earlier origins for the other Cambridgeshire Dykes more likely, and adds significance to the question of why other Iron Age boundaries were not so emphatically re-established in the Anglo-Saxon period. This has consequences for questions about the absence of Early Saxon activity in Hertfordshire and in particular the situation there in the 5th century AD (e.g. Medlycott 2011, 50, 56).

Although historic mapping and aerial imagery can identify locations for further potential Early Iron Age boundaries, only ground investigation such as topographic and geophysical survey, followed by excavation and scientific dating, will provide conclusive evidence and secure dating. The paucity of finds from all the excavated sites mentioned here, along with their (presumed) reworking, shows how difficult it may be to prove a contiguous Early Iron Age system of land division across the east Chilterns and south-east Cambridgeshire. Scientific dating may be more appropriate in such contexts (e.g. Malim and Hayes 2008). It may also be more fruitful to focus attention away from the Cambridgeshire Dykes (and the truncation they have caused) to understand the landscape in which they were constructed more clearly. Any landscape study must include the hillforts which were presumably integral to the territories marked by the boundaries, together with the pit agglomerations that may link to the construction or use of the hillforts. Dating for the hillforts and pit

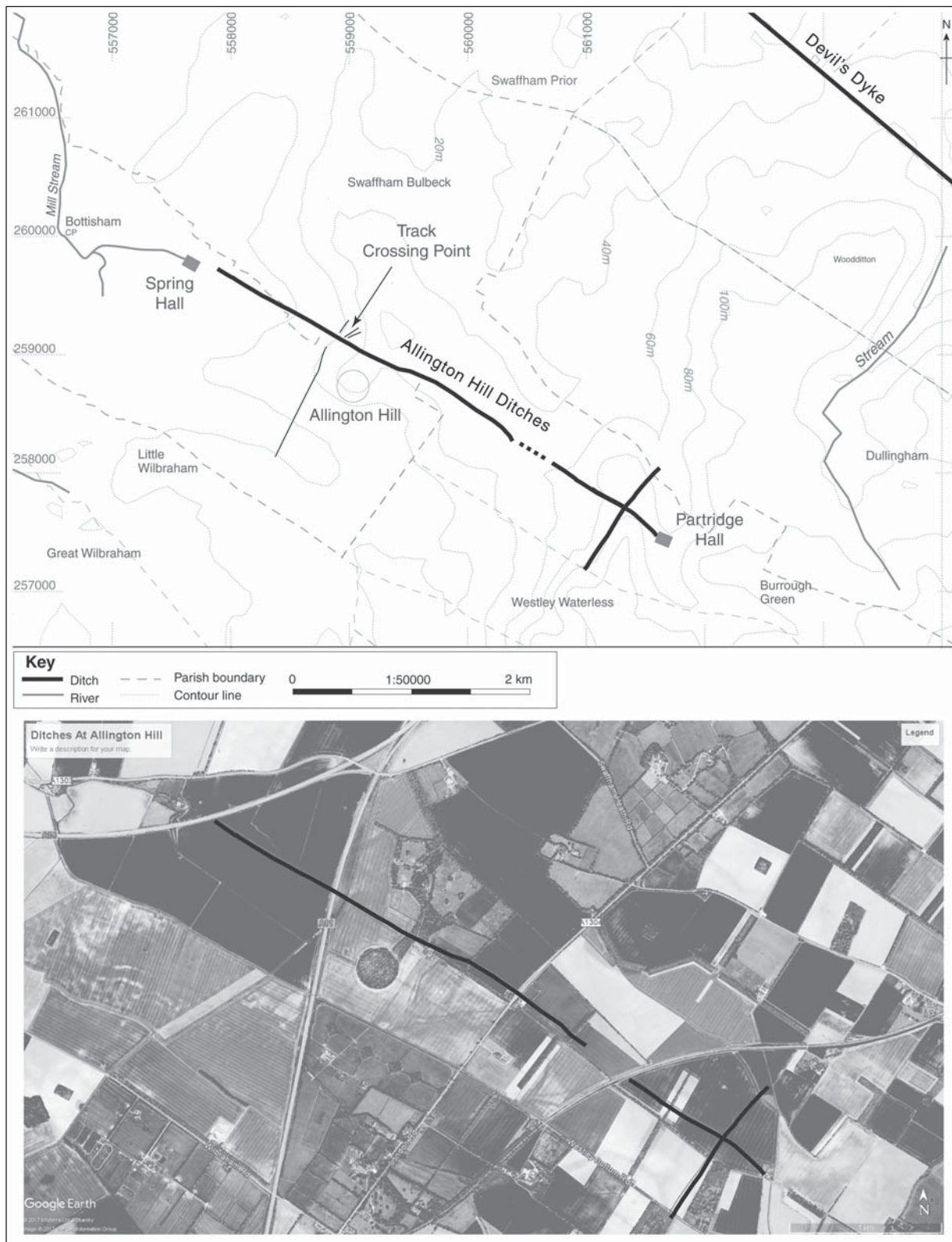


Figure 8. The Allington Hill ditches.

groups is relatively good, potentially centring on the latter half of the 5th century BC, whereas dating for the triple-ditched boundaries is presently elusive.

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