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Roman Barrows and their Landscape Context: a GIS Case Study at Bartlow, Cambridgeshire

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ABSTRACT

This paper examines the landscape context of the Bartlow Hills, a group of large Romano-British barrows that were excavated in the 1840s but have been largely neglected since. GIS is employed to test whether it was possible to view the mounds from nearby roads, barrows, and villas. Existing research on provincial barrows, and especially their landscape context, and some recent relevant applications of GIS are reviewed. We argue that barrows are active and symbolically charged statements about power and identity. The most striking pattern to emerge from the GIS analysis is a focus on display to a local rather than a transient audience.

INTRODUCTION

This paper grew out of ongoing fieldwork on the Bartlow Hills, a group of Romano-British barrows on the Cambridgeshire/Essex border. Reviewing the existing literature on barrows, it is striking how focused most writers are on the monuments and their contents. Sometimes relationships to roads and villas are mentioned but there is rarely an attempt to record these relationships in detail, let alone test whether assumptions about intervisibility and contemporaneity are valid. There is also not much thought on what monuments may have looked like in the past, and how populations would have interacted with them. This is in stark contrast to prehistory, where the landscape context of monuments has been intensively researched.[1] Such a lack of engagement with contextual approaches is especially regrettable as the more closely dated and highly differentiated archaeological data from the Roman period offer considerable scope for a more nuanced understanding of archaeological landscapes.

Barrows, and especially very large mounds such as those at Bartlow, are not just a reflection of beliefs about the afterlife, but active and symbolically charged statements about power and identity. In prehistory, and the early medieval period, barrows have been interpreted as representing ties to ancestors, resources, and land, and as marking out tribal territories.[2] The occurrence of barrows may indicate the development of a more hierarchical and stratified society, and more generally they can be read as a 'conscious message for the living concerning

1 e.g. Bradley 1998; Cummings and Whittle 2004; Tilley 1994.
2 e.g. Shephard 1979; Woodward 2000.

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the location and maintenance of power'.[3] Following the traumas of conquest and the Boudiccan revolt the construction of the Bartlow Hills in the late first and early second century A.D. may reflect the re-emergence of a local élite, or the establishment of new élite families,[4] but either way it seems worth asking how local populations and people passing through the region on the main roads may have interacted with the Bartlow Hills. In this paper we will use GIS to address specific questions about how these mounds functioned in their local landscape. How visible were the mounds from the roads? Was it possible to view the Bartlow Hills from surrounding villas and other settlement sites? The Cambridgeshire and Essex region had existing Bronze Age barrows, often in close proximity to Romano-British sites.[5] Is there a relationship between the location of Romano-British mounds and these earlier monuments?

This paper will briefly review existing research on provincial barrows, and especially their landscape context, before summarising some recent relevant applications of GIS. We will then introduce Bartlow, and using the famous seven mounds as a case study hope to illustrate how GIS can contribute to a more contextual understanding of the site, and of Romano-British barrows in general.

BARROWS IN THE ROMAN PROVINCES

In Britain, barrow burials occur mainly in the South-East but also near Hadrian's Wall, with the northern examples in general notably smaller and simpler than those in the South. About a hundred barrows have been recorded, mainly in the tribal areas of the Cantiaci, Catuvellauni, and Trinovantes, and usually of late first- to third-century A.D. date.[6] The majority are of second-century date and housed cremation burials, which were generally placed in wooden boxes or tile cists above or at ground level.[7] Inhumation burials are also occasionally found within barrows, contained in coffins of lead, stone or wood, and usually accompanied by few or no grave goods.[8]

Romano-British, and indeed continental, barrows vary greatly in size and construction,[9] with Barrow IV in Bartlow (with a height of 13.2 m and diameter of 46.2 m) representing by far the largest example in Britain. Masonry structures (designed to support and restrain the earthen core) within barrows are well known.[10] Romano-British barrows are normally steep-sided, conical mounds of earth, which can be truncated at the top. It is possible that a monument or memorial was placed on the flattened platform but no evidence survives from Britain.[11] On top of one of the barrows at Bourn, Cambs., the excavator noted traces of burning, which he interpreted as the remains of a feast.[12] However, more recent work has reinterpreted the site as medieval earthworks constructed for the purpose of smelting iron.[13] Given the possibility of markers and/or ritual activity, we will examine below from what distances and in what locations the Bartlow Hills may have been visible.

A number of Romano-British barrows have circular ditches (although these are not always

3 Carver 2002, 135.
4 cf. Rodwell 1978a.
5 cf. Fox 1923; Lawson *et al*. 1981.
6 Foster 1986, 188–98; Dunning and Jessup 1936; Jessup 1954; 1959; 1962; Jones 1987; Struck 2000; Toynbee 1971, 179–88; Wigg 1993a.
7 cf. Philpott 1991, 9–21.
8 Jessup 1959, 6.
9 Jessup 1962, 856.
10 Clapham 1922; Wigg 1993a.
11 Jessup 1959, 5.
12 Walker 1911, 175.
13 Baxter 2006.

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visible prior to excavation, e.g. Holborough, Kent), but there are also examples where the required soil seems to have come from nearby quarry pits (e.g. Bartlow and Knobb's Crook, Dorset).[14] In a number of cases, including Bartlow and Limlow Hill, Litlington, Cambs., distinct layers of soil and chalk were observed during excavation; this has also been recorded for Bronze Age barrows in the region.[15] The issue of chalk is of particular interest: is it possible that the exterior of the Bartlow Hills was of chalk, thus increasing their visual impact in the landscape? There are certainly parallels for deliberate attempts to enhance the appearance of funerary monuments. The tumulus at Keston, Kent, had a striking red surface made of *opus signinum* and the West Mersea, Essex, tomb was covered by a thin layer of crushed red tile mixed with yellow ochre.[16] The tower monument within the walled enclosure at Langley, Kent, had its exterior rendered with pink plaster and with reddish-brown plaster painted with lines in cream and red.[17]

Due to the fact that so many barrows were excavated by antiquarians, much information on the nature of the funerary rites has been lost. From the more recently excavated barrows at Holborough, Riseholme, and Knob's Crook, there is rich evidence both for offerings placed on the pyre and for the smashed remains of funerary feasts deposited in pits. The smashing of offerings and their deposition in pits is in many ways reminiscent of the rites documented at, for example, Folly Lane, Verulamium and Stanway, Colchester.[18]

Barrows are known from other regions of the Empire, in particular Belgium, Germany and France, but also the Danube and Black Sea areas as well as Italy.[19] The barrows in Belgium[20] provide especially close parallels, but barrows also occur in the Middle Rhine, Moselle and Saar region (an area associated with the Treveri),[21] Pannonia[22] and Thrace.[23] With very few exceptions (considered below), studies of these monuments do not examine the landscape context of barrows, and are therefore not discussed in detail here.

BARROWS IN THE LANDSCAPE

Barrows often occur in groups, with the seven mounds in Bartlow, the six mounds in Stevenage, Herts., and four mounds in Rougham, Suffolk, and Canterbury representing the largest groups in Britain. In Bartlow and Stevenage the mounds are aligned roughly north–south, and, in the latter case, positioned along a supposed Roman road.[24] A link between the location of barrows and that of roads is often suggested, but has only begun to be tested,[25] and the relationship may be quite complicated. Thus at Overton Down, Wilts., the three barrows are located in a landscape in which Bronze Age barrows would still have been prominent. They are 45 m north of the Roman road, but that runs east–west whilst the barrows are aligned north–south. The barrows are aligned with the Ridgeway, which runs north–south *c*. 30 m to the east of the barrows, but Fowler[26] has

14 Fowler 1965.
15 Fox 1923,199; Neville 1848, 18.
16 Phelp *et al.* 1999; Dunning and Jessup 1936, 50.
17 Jessup 1959, 15.
18 Niblett 1999; Crummy *et al*. 2007.
19 For a recent overview see: Amand 1987; 1988.
20 Amand 1985; 1969; 1960; de Loe 1937; Dunning and Jessup 1936, 42–5; Massart 1994; Van Doorselaer 1967, 175–9; Wigg 1993b.
21 Ebel 1989; Koethe 1939; Wigg 1993b; 1993c; 1998.
22 Amand 1956; Bónis 1982; Fitz 1958; Nagy 2002; Sági 1943.
23 Amand 1988, 194–5; Becker 1993; Mansel 1941.
24 Dunning and Jessup 1936, 50, fig. 1; Fox 1923, 197.
25 Pearce 2000, 7; Struck 2000, 93.
26 1998, 28–32; 2000, 60–1.

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argued that the Ridgeway post-dates the Roman period in this area. Instead he suggests that the barrows may be aligned to be visible from a nearby rural settlement and possible villa.[27] Rather than assuming contemporary dates for barrows and roads, it may be necessary to test this assumption through excavation, as at Shapwick, Somerset, where Fowler showed that the three barrows next to the Roman road in fact date to the Bronze Age.[28] Due to the rarity of excavated high-status, rural cemetery sites, there has also been little systematic analysis of the relationships between villas and funerary enclosures, although there are some intriguing case studies such as the temple mausoleum overlooking the villa at Bancroft, Bucks.[29]

As in Britain, barrows in Belgium are often located near roads and villas, and it has been suggested that the association between villas and barrows is even stronger in Belgium than in Roman Britain.[30] However, there has been no systematic analysis, and only recently has work begun to accurately record not just the profiles and dimensions of Roman barrows, but also their location in relationship to the surrounding landscape.[31] Wigg[32] has examined spatial relationships by recording the distance between barrows and villas and roads. She finds that in the Rhine-Mosel-Saar region distances between barrows and villas vary from 90 m to 1,250 m, with most barrows located between 150 m and 550 m from the villa. They are often located on higher ground than the villa, and within a larger cemetery. In Belgium distances of between 200 m and 1,000 m have been recorded. Many, but not all, are located near to Roman roads, with distances ranging from 30 m to 2,180 m.

With regard to the wider landscape context, there have again been many general statements, but no systematic analysis. Fox[33] suggested that in Cambridgeshire Bronze Age barrows are largely located on the chalk uplands and thus in a very different situation to the Roman barrows. Fox describes the latter as occurring in valleys, by streams (e.g. Bartlow, Lord's Bridge, and Hildersham), while those on the uplands (e.g. Emmanuel's Knoll) adjoin Roman roads or are in forest areas. Of course we need to take into account that barrow distribution and siting may be related not just to land ownership and symbolic boundaries but also to underlying soils and their use in the past. Surviving distributions also reflect the impact of agricultural practices and the varying visibility of cropmarks.[34] Bronze Age barrows in lowland areas are likely to have already been substantially damaged by later prehistoric ploughing.[35] In terms of visibility, Roman barrows in Britain are often found on hill slopes but not on hill crests like their prehistoric cousins.[36] This difference in landscape setting is well demonstrated at Holborough (Snodland), where the Roman barrow is located just below the brow of the hill, commanding a wide view of the landscape. On the chalk spur above it, on the crest of the hill and strongly outlined against the sky, stood a Bronze Age barrow.[37]

In contrast to approaches within Roman archaeology, the landscape setting and context of prehistoric barrows has long been explored, with many prehistorians viewing the placing, construction, use, and remodelling of barrows in terms of agency and embedded memory.[38]

27 Fowler 2000, 54–60, fig. 4.1, pl. XIII.
28 Fowler 1965.
29 Pearce 2000, 7; Williams and Zeepvat 1994.
30 Amand 1985, 24; Jessup 1959, 10.
31 Massart 1994.
32 1993c, 110–16.
33 1923, 197, 235.
34 cf. Lawson *et al.* 1981, 99–101, fig. 43.
35 Bradley 2007, 177–8; Last 2007, 11.
36 Jessup 1962, 855.
37 Jessup 1954, 2.
38 For a recent overview: Last 2007; Woodward and Woodward 1996; Woodward 2000; cf. Tilley 1994; Watson 2001.

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Factors such as internal chronology, control of movement (routes between monuments), views to and from barrows, and symbolic display are also taken into account. Such analysis can include GIS, and in particular viewshed analysis, and phenomenological approaches.[39] It is not an aim of this paper to review recent work on archaeological landscapes using GIS analysis.[40] There are clearly problems with GIS and viewshed analysis in particular, and these are not just the often-discussed questions of the effect of trees but also the difference between description and interpretation. In other words, intervisibility does not in itself prove a relationship. A recent study of megaliths in the Neolithic landscapes of Wales combined the use of viewsheds with a drawn and a photographic 360-degree representation of the views from each monument, in order to balance the advantages and disadvantages of the respective methods.[41] It is perhaps through a combination of approaches such as this that some of the problems associated with GIS can be resolved, in particular the tension between the environmental determinism implicit in many early studies and post-processual landscape theory, with its emphasis on perception.[42]

Within Roman archaeology, there are only a few phenomenological approaches, for example to roads,[43] the intervisibility of temples,[44] and classical landscapes generally.[45] Equally, GIS viewsheds are still rarely used in the study of Roman Britain,[46] or indeed the Roman world.[47] This is especially regrettable as many features of Romano-British landscapes are much more closely defined and dated than in prehistoric periods. Whatever the theoretical and practical difficulties, a more systematic analysis of the landscape context of Romano-British barrows is clearly desirable, and it is hoped that Bartlow can begin to make a contribution in this area of research.

THE BARTLOW HILLS

The monumental barrows at Bartlow (Cambs.) are the largest surviving Roman burial mounds in the province and contained a rich collection of grave goods (FIGS 1–2). These include bronze, glass and ceramic vessels, a folding chair and a gold finger-ring, as well as organic remains such as flower petals and incense. The dead were cremated and placed into large wooden chests or brick chambers, which appear to have been lit by lamps. Both the funerary rites and the construction of the mounds must have been impressive spectacles (frontispiece). The seven (four large and three smaller) mounds were excavated between 1815 and 1840.[48] Further excavations uncovered part of an associated villa in 1852.[49] Since the nineteenth-century excavations, the mounds have been largely neglected and, in particular, little was known of the construction of the four large barrows and of the impact earlier excavations have had on them. Electrical Resistance Tomography has now identified one of the antiquarian tunnels, associated collapse features, and possible ancient revetments in the four large mounds.[50]

39 e.g. Pierpoint 1980, 266–70; Cummings *et al.* 2002; Cummings and Whittle 2004.
40 But see: Ashmore and Knapp 1999; Conolly and Lake 2006; Chapman 2006; Gillings *et al.* 1999; Lock and Stančič 1995; Tilley 1994; Wheatley and Gillings 2000.
41 Cummings and Whittle 2004, but see Fleming 2005; cf. Hamilton and Whitehouse 2006.
42 Witcher 1999 for an excellent summary.
43 Witcher 1998.
44 Ghey 2005; Smith 2001, 150, map 5.28.
45 Launaro 2004.
46 e.g. Chapman 2006, pls 9–10; Fulford and Rippon 1994, 198–201, fig. 16.
47 e.g. Anderson 2005; Strutt 2000.
48 Gage 1834; 1836; 1840; 1842; cf. Dunning and Jessup 1936, 49; VCH Essex 1963, 39–45; Taylor 1998, 19.
49 Neville 1853, 17; see also: Scott 1993, 32–3; Taylor 1998, 19.
50 Astin and Eckardt 2007.

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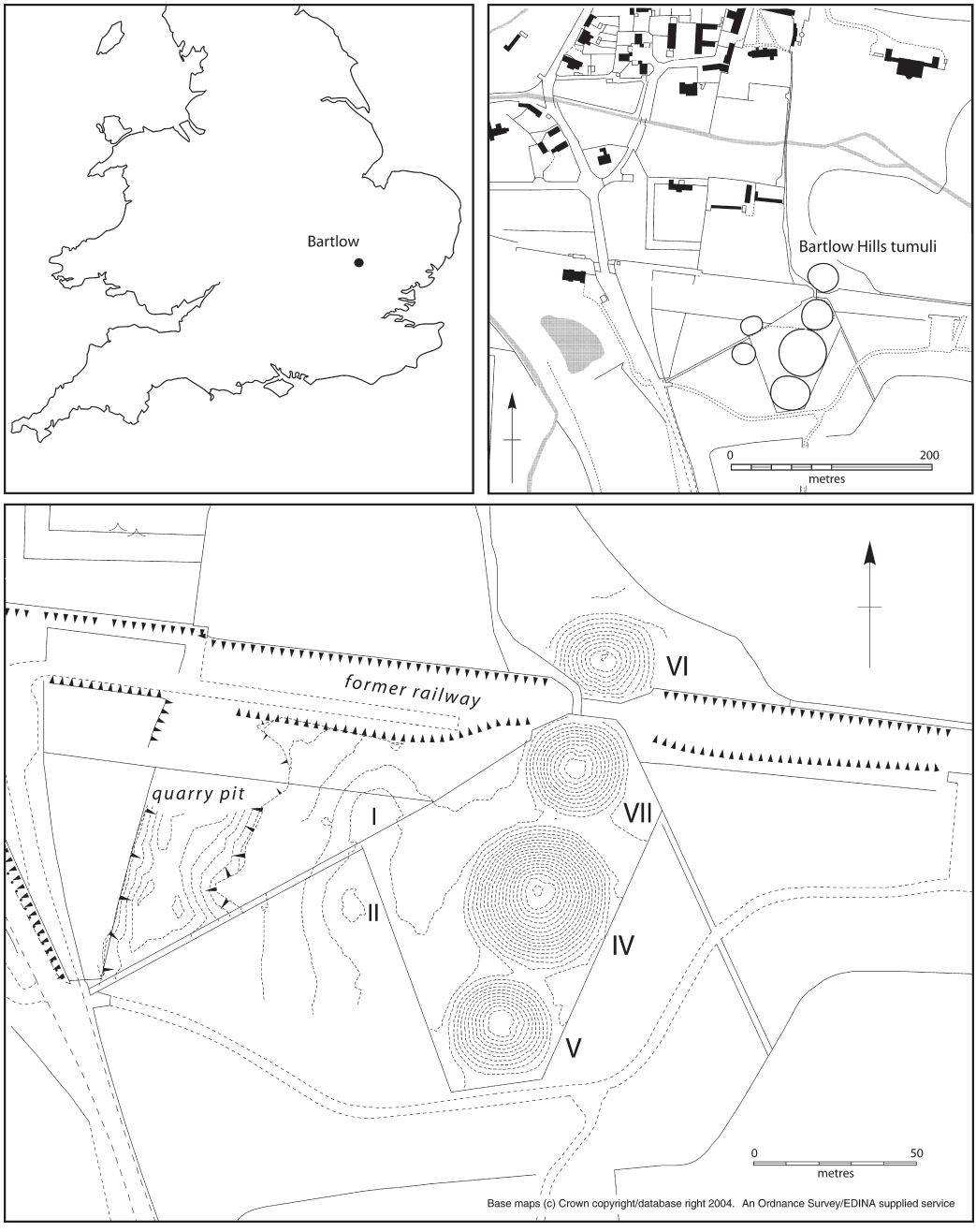


FIG. 1. Location map: the Bartlow Hills.

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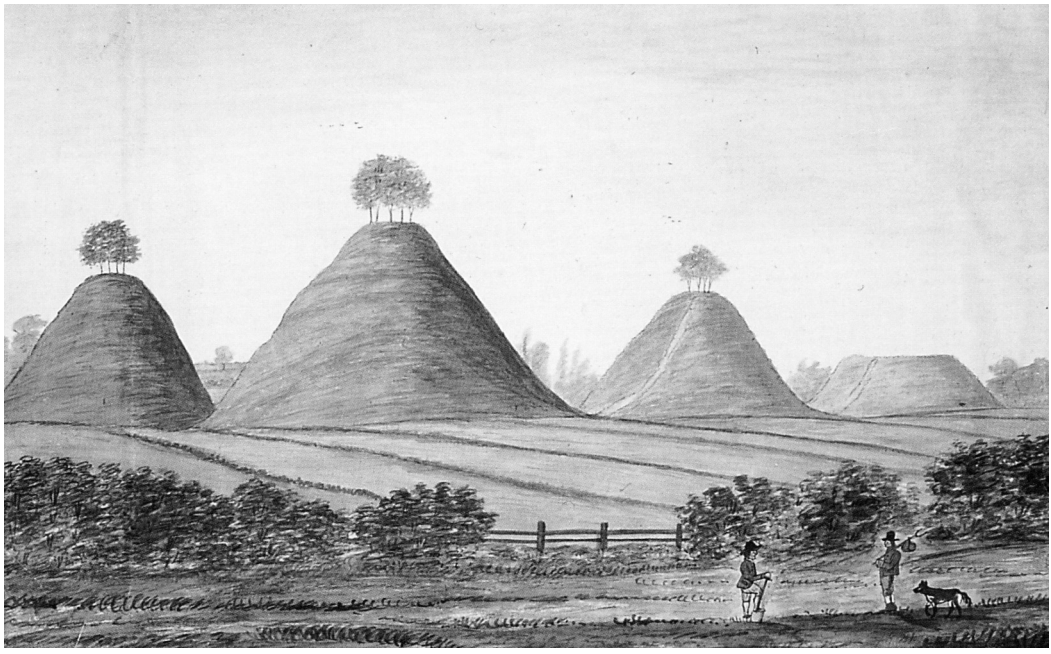


FIG. 2. The Bartlow Hills in 1821 by Richard Relhan. (*By kind permission of Cambridge Antiquarian Society*)

The Bartlow Hills were clearly surrounded by a substantial Romano-British cemetery. When a railway line was cut in 1865, 15 inhumation burials were found; there are also confused reports of three stone coffins found in two barrows.[51] More recently, a watching-brief was carried out near the stream to the north of the mounds.[52] Four cremations and two inhumations of second- to fourth-century date were uncovered. Gage also records a flint platform located between the two rows of barrows,[53] perhaps representing a mausoleum, and recent geophysical surveys of the surrounding area have identified rectangular enclosures and linear features that may be contemporary with the mounds.[54] The Bartlow Hills were in open farmland in the recent past (see FIG. 2), but are today situated in dense woodland, making it difficult to appreciate their position in the landscape. In order to place the Bartlow Hills into their wider archaeological context, the following sections will use GIS to relate the mounds to the surrounding landscape.

LANDSCAPES OF THE LIVING AND THE DEAD AT BARTLOW

Today, Bartlow lies close to the borders of three counties (Essex, Cambridgeshire and Suffolk). This is not the place to expand on the difficulties of defining 'tribal' areas,[55] but in the Romano-

51 Brocklebank 1913, 254; VCH Essex 1963, 39.
52 Beauchamp and Macaulay 2004; Fitzpatrick 2005, 428–9; Poppy 2005, 217.
53 Gage 1836, 436.
54 Eckardt and Clarke 2007.
55 See Cunliffe 1991, 107–79; Jones and Mattingly 2002, 50–5; Sellwood 1984.

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British period Bartlow was also located on the margins of several *civitates*. Bartlow is thought to be within the north-western part of the area believed to have been inhabited by the Trinovantes.[56] It is also near the eastern edge of the Catuvellaunian area,[57] and to the south of that of the Iceni.[58]

The most important river within our study area is the river Cam and its tributaries. The Rhee (near the western end of the study area) and the (longer) Granta (flowing north past Audley End House) merge just south of Grantchester. Through Bartlow flows another tributary (also called Granta), which runs from south of Haverhill to join the larger Granta near Great Shelford. In Bartlow it is joined by two smaller tributaries, the more important being the Bourn Brook.[59] The confluence of several streams may have been a factor in marking the location as ritually significant, either in prehistory or the Roman period.

Early scholars believed that the heavy clay soils of north-west Essex were forested and only cleared by the Anglo-Saxons, with Romano-British settlement largely restricted to the lighter valley soils. This view is now thought to be incorrect, as demonstrated, for example, by Williamson's field-walking study,[60] focusing on an area of chalk uplands to the west of Saffron Walden. He suggests a density of 1.2 sites per square kilometre in the mid-first century A.D., rising to 1.3 sites by the end of the fourth century.[61] The survey below will also show dense rural occupation around Bartlow, and certainly not just restricted to the valleys, although many sites are indeed located close to the rivers. Pollen evidence confirms the suggestion of continued woodland clearance from the Iron Age into the Roman period and various authors have argued for continuity and survival of land allotment patterns from the late Iron Age and Romano-British period in certain parts of the Essex countryside.[62]

This section will summarise the evidence for roads and settlement in the Bartlow region, and then utilise GIS and in particular viewsheds to analyse the data. We will then review the evidence for burials, including barrows.

A detailed gazetteer of sites was compiled from both published and SMR data; this is available through the ads (Archaeology Data Service) website:

http://ads.ahds.ac.uk/catalogue/resources.html?bartlow_ba_2009.

MOVING THROUGH THE LANDSCAPES: ROADS IN THE BARTLOW AREA

Bartlow is surrounded by a network of major Roman roads, although none of the securely documented roads are very close to the site (FIG. 3).[63] To the west is a Roman road running north from Great Chesterford, towards *Camboritum* (Lackford, Suffolk) and Thetford. The stretch that concerns us (from Great Chesterford to Worsted Lodge) is probably of pre-Flavian date and almost certainly connected with the early military base at Great Chesterford.[64] It appears to follow the route of the earlier prehistoric track Icknield Way.[65] To the north is a major Roman

56 cf. Dunnett 1975, fig. 1.
57 cf. Branigan 1985.
58 Davies 1996; Davies and Williamson 1999; Dunnett 1975, 45; Hingley and Unwin 2005, 11–39; Rodwell, 1975, fig. 1.
59 Taylor 1998, 18.
60 1984; cf. 1986; 1990; cf. Rodwell 1975, 85.
61 cf. Hunter 1999, 41.
62 Bassett 1982, 7–8; Murphy 1996, 176; Rodwell 1978b.
63 Fox 1923, 161–73; Malim 2000b, 21; Margary 1955, 213–24; Wilkes and Elrington 1978, 15–28.
64 Wilkes and Elrington 1978, 24; VCH Essex 1963, 28.
65 Fox 1923, 166–7; Malim 2000a, 11; Margary 1955, 214.

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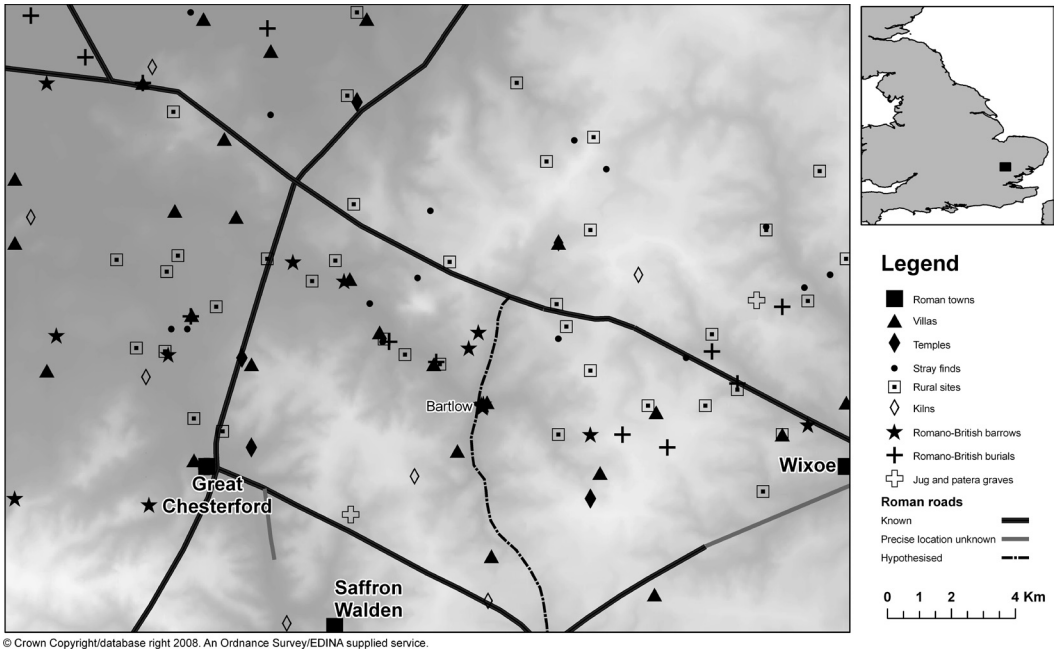


FIG. 3. Landscapes of the living and the dead: Roman roads, settlements and burials in the Bartlow area.

road named *Via Devana* by a nineteenth-century antiquarian, running east–west and connecting Cambridge to Haverhill, Wixoe, and ultimately perhaps Colchester.[66] The Roman road may have remained 'unfinished' (i.e. not metalled) south-east of Worsted Lodge.[67] No Roman road is attested beyond Horseheath but it may have run (perhaps utilising existing routes) through Haverhill, Sturmer, Wixoe, and on to Ridgewell.[68] The pre-existing trackways along the line of that route are also known as Wool Street.[69] Running north-east from Wixoe towards Long Melford is another route, and its extension towards Radwinter has now been demonstrated (see below).[70]

To the south is the road connecting Great Chesterford with Great Dunmow.[71] Fox[72] was only aware of a short section of this road running from north of Thaxted to Radwinter, where Margary suggests the road turns sharply west to run to Great Chesterford. Examinations near Radwinter and Woodstone (both very near to Bartlow) showed solid evidence for a Roman road.[73]

Fox[74] suggests that there may have been another small road or trackway running north from

66 Reaney 1943, 30–1; cf. Wilkes and Elrington 1978, 17–19; Dewhurst 1963–4, 57–9 argues against a link to Colchester, but see Going 1996, 95.
67 Dewhurst 1963–4, 49–52; VCH Essex 1963, 29.
68 Dewhurst 1963–4, 54–5; Fox 1923, 168–9, map IV.
69 Dewhurst 1963–4; Reaney 1943, 31–2.
70 Going 1996, 96; Margary 1955, Road 34a.
71 Margary 1955, 220–2, his Road 300.
72 Fox 1923, map IV.
73 VCH Essex 1963, 27–8; Bassett 1982, 8.
74 Fox 1923, 172.

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Radwinter through Ashdon, meeting the *Via Devana* west of Haverhill — such a road would have run past Bartlow, with the barrows aligned with this smaller road. This proposal goes back to Christy,[75] who suggests that it strikes south from the *Via Devana* at Streetly Hall near Horseheath, on a somewhat wavy course via Bartlow, Ashdon, Goldstones, and Bendish Hall Farms to Radwinter. Christy acknowledges that its line is wavy and unclear but this may be due to the fact that this route followed existing prehistoric paths in the area.

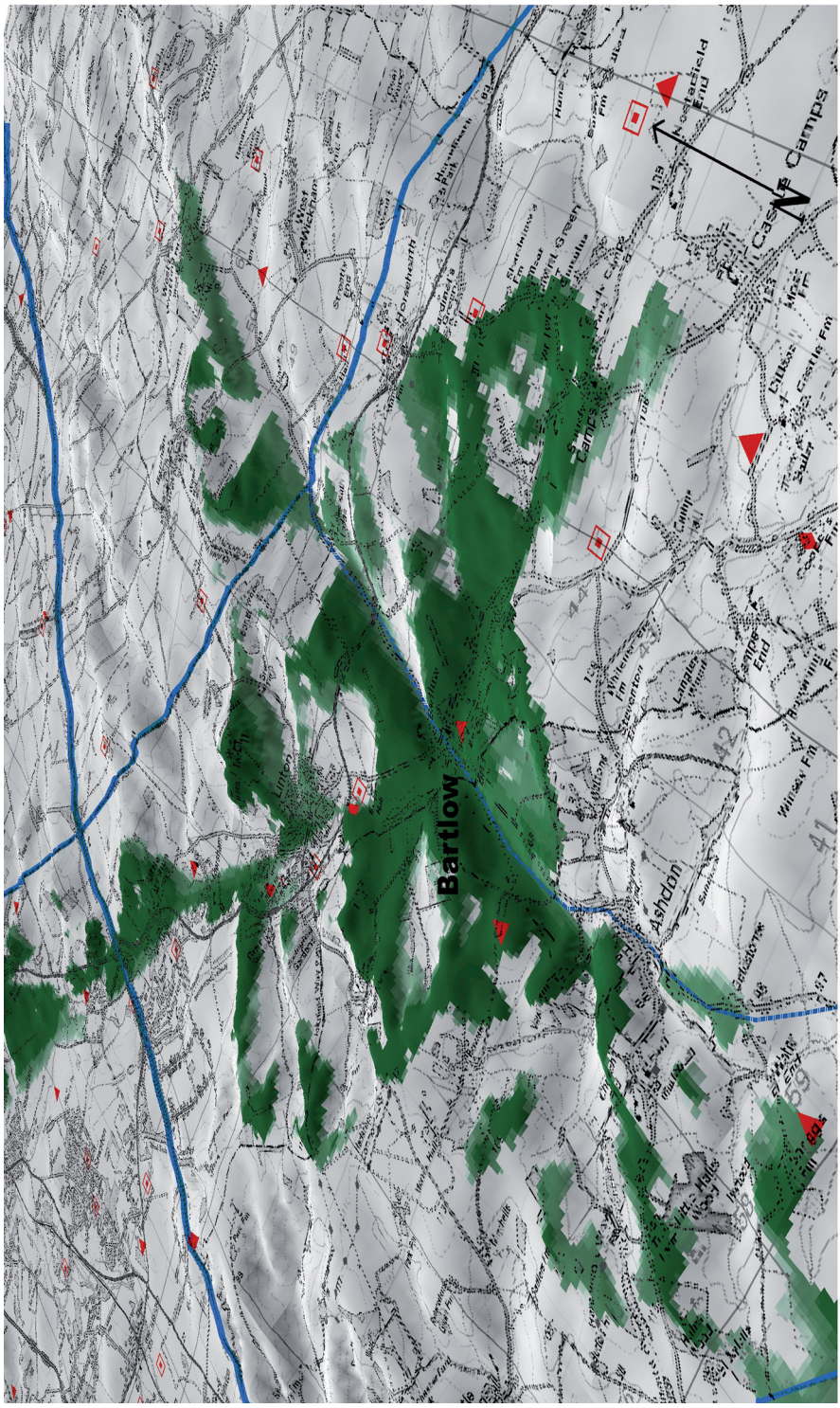
Already mentioned is the route from the kink in the road by Radwinter towards the small settlement at Wixoe (and on towards Long Melford). Such an alignment has been tentatively identified from aerial photography, and has now been demonstrated by a local archaeological group.[76] Fords across the Granta must have existed at various points; one is attested at Barham and another at Wixoe.[77] In summary, Bartlow is located near a number of major Roman through-routes, but the inhabitants of this and neighbouring villas probably relied on a network of local tracks and drove-ways for most of their routine local journeys.

The viewshed analyses were performed using both Ordnance Survey Land-Form Profile DTM and LIDAR DTM datasets to produce a visual representation of those areas from which it was possible to see the mounds. As with all such analyses, the method is better at demonstrating from which areas one could definitely *not* see the mounds than proving from which areas one could see the mounds. Visibility may depend on factors such as the angle of viewing and the height of an observer. Perhaps more importantly, the effect that vegetation has on lines of sight is a major problem in this context, as no detailed environmental data are available to reconstruct the extent of woodland in the vicinity of Bartlow in the Romano-British period. In any case, the exact location of Roman-period vegetation barriers is unknowable, and when assessing all viewshed analyses this basic limitation must be understood. The results of the viewshed analyses with both OS and LIDAR data were very similar. The lower resolution OS data (50 m resolution) provides a good approximation of the topography of the study area with little influence from modern features. This dataset, however, is in some cases unable to define subtle undulations in the topography which can have dramatic effects on viewshed analyses. The higher resolution of the LIDAR data (5 m resolution, covering the entire study area) on the other hand accurately maps much finer detail, with the side effect that modern features such as forests and buildings can influence the results of viewshed analyses. Post-processing of the LIDAR data was carried out in an attempt to remove such features, resulting in a final viewshed without obvious artificial boundaries. As LIDAR is the more detailed and fine-grained of the datasets we have employed it for our analysis (see COLOUR FIG. 1).

Another technical question is the nature and extent of visibility — thus there may be areas from where only the top of the largest mound was visible as opposed to others from which all the barrows could be seen. To address this, a regular mesh of points (at 2 m resolution) was placed across the location of the mounds, and these were assigned height values using data from the 2005 topographical survey of the barrows.[78] Combining the underlying topographical data with the height value assigned to each point allows us to locate all the cells on the map that can 'see' this point. This information is recorded for all the points, and when the viewsheds are combined each cell can be given a value, e.g. a cell which can see just one point has a value of 1 and a cell that can see 20 points has a value of 20. This is expressed in COLOUR FIG. 1 by showing a range of colours, with areas in dark green representing sites from which it was possible to see significant sections of the Bartlow Hills, while the more marginal areas of the viewshed shown

75 Christy 1920, 213–15, map facing p. 204.
76 Couchman 1979, 53, fig. 19; Going 1996, 95.
77 Taylor 1998, 56.
78 Astin and Eckardt 2007.

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Bartlow
Ashdon
Castle Camps
Castlefield End
Castle End
Camps
Horseheath
Linton
Hadstock
Abbey Fm
Castle Fm
Willow Fm
Langley Moor
Whitehall Fm
Cockscroft
Cadwin Fm
Hall Fm
Hall Grove
Hall Hills
Mill
Mill Hill
Mill Fm
Mill Green
Mill Plantation
Mill Wood
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in light green represent areas from which it may have been possible to see just the top of one of the mounds. The viewshed illustrates that Bartlow is situated within a wider natural basin, rather than placed at one of the highest points within the area.

One of the most interesting results of this analysis is the relationship between the Bartlow Hills and the main east–west road located to the north of the mounds. While the existing literature has stressed the role of barrows in élite display and their proximity to Roman roads, it is clear that in this particular case this élite display does not appear to be aimed at the transient population travelling on the *Via Devana*. This is already evident from the fact that the barrows are aligned north–south rather than east–west, and that they were not built immediately next to the road, but 3.5 km from it. The viewshed analysis can now suggest that it may have been possible to see the mounds from this main road, but only from a short stretch (*c.* 700 m) close to the point from where a smaller road is thought to branch off towards Bartlow.

To the west, along the valley of the river Granta, there is another vista which may have made it possible to see the Bartlow Hills from the main road running north from Chesterford. This may have been where a local track joined this main road, and again it appears that the Bartlow Hills may only have been visible for a restricted stretch of that road, and at a distance of 8 km.

By contrast, the hills would have been visible for much of the length of the smaller local road, suggesting that the barrow builders were addressing this display of power and wealth very much to a local audience. While there is no archaeological evidence for more local roads and trackways in the Bartlow area, these are certain to have existed, connecting Bartlow to the surrounding major roads and villas; it is likely that these also followed the river valleys, and thus had a good view of the barrows for at least part of their course. The Bartlow Hills are located on a minor ridge within the wider natural valley and on a slope rising from the Granta. Possibly the most impressive view of the complete group would have been from the west, with the larger mounds rising behind the line of the three smaller barrows. Although now completely destroyed, the villa located immediately to the east and north-east of the mounds would also have commanded striking views of the mounds.

The builders of the Bartlow Hills were thus addressing transient populations and neighbouring élites in only limited ways, with the full impact of the mounds felt in the local neighbourhood, perhaps reflecting the extent of the Bartlow villa estate. The next sections will explore the evidence for rural and urban settlement in the area.

LIVING NEAR BARTLOW: RURAL SETTLEMENT

Williamson[79] demonstrated for northern Essex that Romano-British rural settlements occur at a density of *c.* 1.3 sites per square kilometre by the end of the fourth century A.D. Sites cluster on the margins of the lighter clay and chalk soils, but manuring spreads appear to demonstrate that the poorer-draining areas of the clay plateau were no longer woodland but used for arable agriculture.[80] An interesting aspect of the dense settlement pattern is the question of self-sufficiency; models of landscape use based on catchment areas alone may assume an idealised territory for each settlement, but Williamson[81] found through field-walking that many of his Essex sites were located away from meadows and woodland, with access sometimes blocked by other settlements. He therefore argues for dispersed, perhaps kin-based settlements, which were not completely self-sufficient. While discussion in the existing literature (and indeed below)

79 1986, 124–5; cf. 1990; 1984.
80 cf. Green 1978 on infield and outfield systems near Godmanchester.
81 1990, 80–1.

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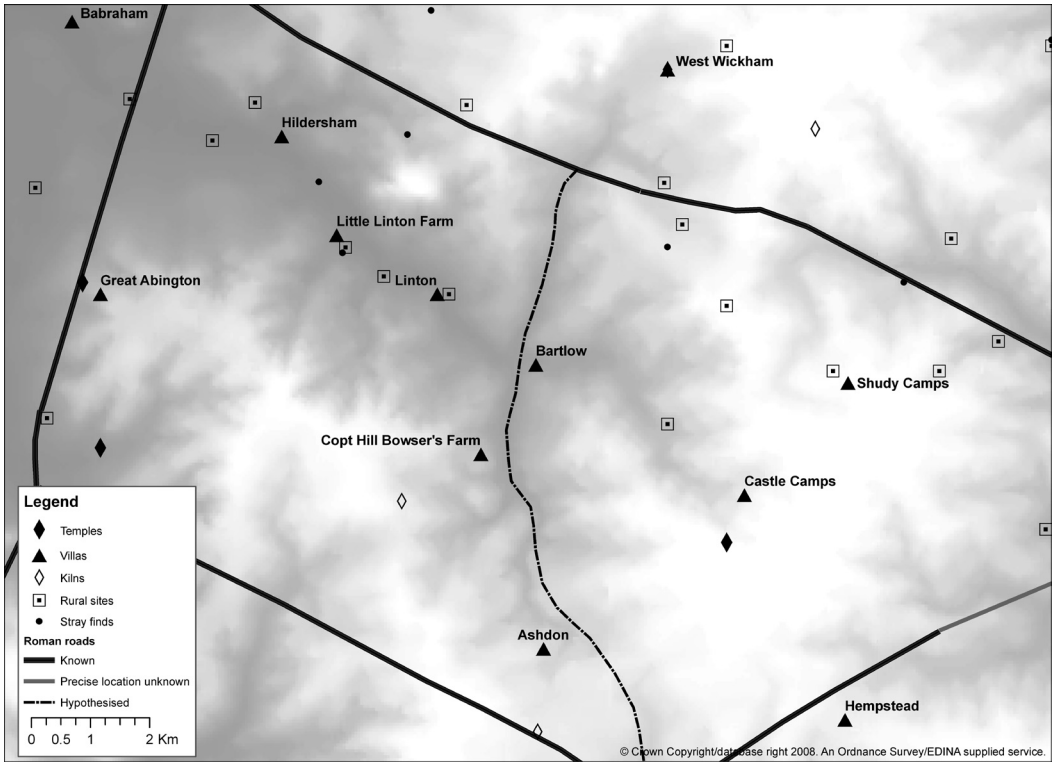


FIG. 4. Rural settlement and kilns in the Bartlow area.

focuses on villa sites, it is clear that the majority of the population lived in other types of rural sites.[82] The gazetteer and maps, therefore, record evidence for occupation from rural sites, mainly in the form of occupation debris and ditches or pits (see FIG. 4).

Identifying villas in this part of Essex and Cambridgeshire is especially difficult as most were built in timber, with just the bath-house constructed in stone or brick; Ashdon, Hadstock and Bartlow are often cited as examples.[83] Such timber-framed buildings posed particular challenges for antiquarian excavators,[84] and this is important as so many of the villas in our study area are only known from antiquarian excavations (mainly by Richard Neville). More recently, this situation has been remedied somewhat by the larger scale excavations in Rivenhall and Wendens Ambo.[85] In terms of villa location, Fox[86] suggests that a 'southern or eastern aspect was usually chosen; but the four small houses near Bartlow are on the north slope of the valley of the Bourn River'. At Wendens Ambo, the villa is located on a north-facing slope, and this is explained in terms of restrictions on available settlement space.[87]

82 Hingley 1989; Taylor 2001; for the study area: Dunnett 1975, 108–12, fig. 29.
83 Fox 1923, 186; VCH Essex 1963, 20, 45.
84 Drury and Rodwell 1980, 70.
85 Rodwell and Rodwell 1985; 1993; Hodder 1982.
86 1923, 188.
87 Hodder 1982, 61.

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A possible bath-building was excavated at Bartlow in 1852, and further parts of the associated villa were found when the railway line was cut.[88] Initial excavation at Bartlow has failed to identify structural remains but the rubbish pits found in 2007 appear to suggest an emphasis on the later Roman period (third to fourth century A.D.).[89] Villas in the immediate vicinity of Bartlow are known at Linton,[90] Copt Hill/Ashdon,[91] Radwinter,[92] Castle Camps,[93] Shudy Camps,[94] and West Wickham[95] (see FIG. 4).

Given the absence of local building-stone and the use of tile and brick for the construction of at least parts of the villas in the study area, it is interesting to also map the distribution of kiln sites (see FIG. 4). The distribution of tile (and pottery) kilns has been mapped in Essex.[96] Pottery kilns have been extensively reviewed by Swan,[97] and more specifically for the region and the early Roman period by Gibson and Lucas.[98] Not far from Bartlow is a very large tile kiln, at Ashdon excavated by Richard Neville.[99] This appears to be in a relatively isolated location away from the urban settlement in the region, but near to a number of villas.

Going[100] argues that the initial impetus for rural development occurred in the Flavian period in the Colchester area, with some proto-villas elsewhere. Many of these early villas in the Colchester area may have belonged to 'incomers', but it is only in the Hadrianic and especially the Antonine period that villas really take off elsewhere in Essex. In this context it is striking that the barrow builders at Bartlow appear to be in the vanguard of these new forms of displaying status and wealth, with the majority of the mounds dating to the Hadrianic-Antonine period and the earliest (Barrow I) possibly dating to A.D. 80–100.[101]

Going[102] argues that there is a marked decline in villa construction in the later Roman period, with villa construction and enlargement declining in the third and virtually ceasing in the fourth century. This view echoes Richard Reece's model of western/Cotswold growth and eastern decline.[103] Going sees some evidence for the remodelling of field-systems/land-allotment patterns, perhaps to create *latifundia* while *agri deserti* were spreading, but this needs the support of palaeobotanical evidence. Such evidence is sparse for the study region, consisting largely of Paul Halstead's work at Wendens Ambo.[104] Initial work at Bartlow appears to show a peak of activity in the later Roman period,[105] and certainly post-dating the construction date of the mounds, in contrast to Going's general picture.

While it is still most likely that the Bartlow Hills were built by the inhabitants of a villa located in their immediate vicinity, we may ask whether it is possible that the Bartlow Hills were the resting places of villa owners from the wider area, with Copt Hill being the closest

88 Brocklebank 1913, 254; Neville 1853, 17–21; Rodwell 1978a, 31; Scott 1993, 32–3, 60; Taylor 1998, 19.
89 Eckardt and Clarke 2007.
90 Ette and Hinds 1993; Scott 1993, 39–40, CA 107, also 105; Taylor 1990, 93–4.
91 Fox 1923, 186; Rodwell 1978a, 31, No. 40; Scott 1993, 60, ES 4; VCH Essex 1963, 44.
92 Charge 1996, 61; Havis 2001.
93 Charge 1996; Taylor 1998, 23.
94 Lewis *et al*. 2001, 145; HDAG 1999; HDAG 2000, 84–92.
95 Frere 1992, 286; Scott 1993, 44; Taylor 1998, 97.
96 Couchman 1979, fig. 19; Rodwell 1982, fig. 1.
97 Swan 1984.
98 2002, with useful map; see also Taylor 2000a, 15.
99 McWhirr 1979, 123; Neville 1853; Rodwell 1982, 73.
100 1996, 103; building on Dunnett 1975, 118; Rodwell 1978a.
101 VCH Essex 1963, 39–45. The dating of all mounds, and the cultural affinities of the people buried in them, could be re-assessed in light of more recent work on many of the artefacts found in the graves.
102 1996, 103–4.
103 Reece 1995.
104 Hodder 1982.
105 Eckardt and Clarke 2007.

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site, and Linton (formerly listed under Hadstock) being the most impressive villa in the area. Even if these are the residences of other families with their own burial grounds, analysis of intervisibility between these villas and the mounds may shed light on the relationships between the local élites within this area. Viewshed analysis (see COLOUR FIG. 1) demonstrates that the mounds were clearly visible only from the Copt Hill villa; this villa is located on a significant rise, and was orientated north–south, towards the Bartlow Hills.[106] The Bartlow Hills may also have been visible from Linton, Little Linton Farm, and possibly (on a clear day) Babraham, all sites located along the river valley. While intervisibility between villas and the mounds may simply reflect the impact of the underlying topography, it is possible that there were specific links between the Bartlow and Copt Hill villa owners. These may reflect close relations and/or competitive display aimed at specific neighbouring élites. It appears that the other villas are located very much at the edges of the visible areas, perhaps suggesting that competitive display with these families was less important.

If we also consider the view from (rather than towards) the mounds, the viewsheds strengthen the impression of a focus on a hypothetical Bartlow estate, and a very local audience. In this context it is interesting to note that the area from which the mounds were visible corresponds quite closely to a hypothetical reconstruction of a Romano-British Bartlow estate (FIG. 5). It should, of course, be noted that the use of Thiessen polygons represents a very crude representation of

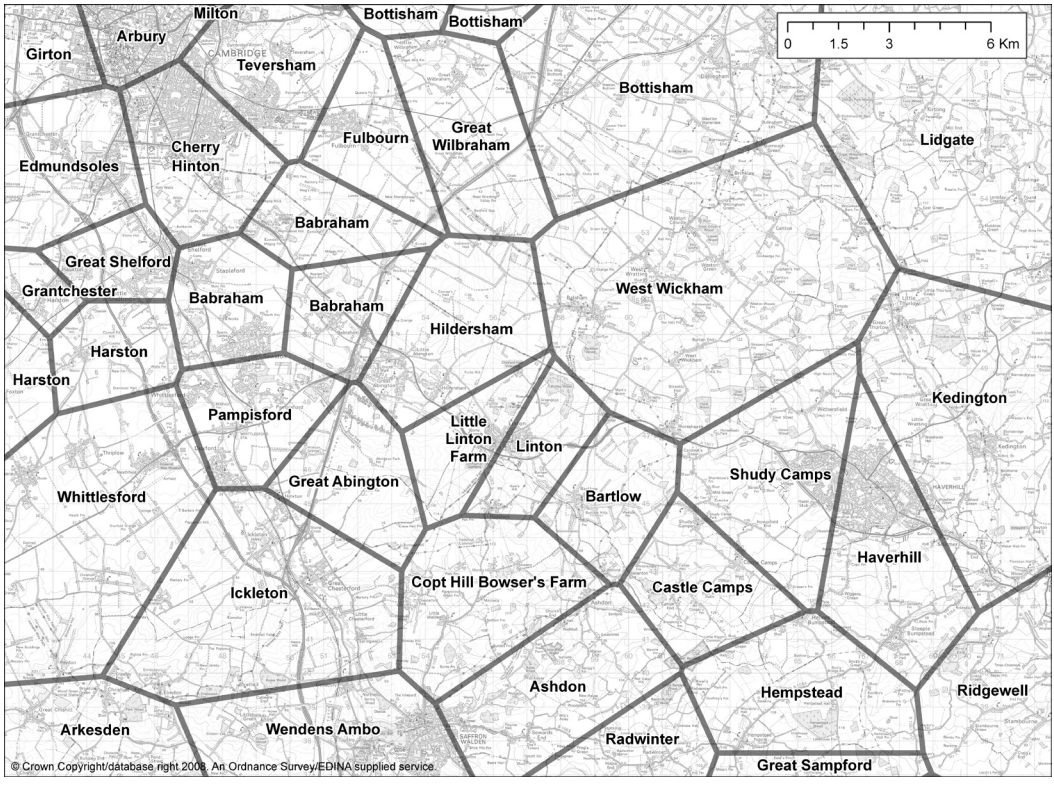


FIG. 5. Thiessen polygons suggesting hypothetical estate sizes for villas in the Bartlow area.

106 Neville 1853.

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'territories' or spheres of influence.[107] Not only can the field be distorted by undiscovered or unrecorded sites (e.g. north of the West Wickham villa), but the polygons take no account of the differing size, wealth, and power of these villas. Land-holding systems, tenurial arrangements, and estate histories may well have resulted in fragmented and spatially discontinuous patterns of ownership rather than clearly-bounded, spatially exclusive estates. The model also fails to take into account how villa estates may have changed over time, and does not factor in the 'pull' of nearby urban sites. Finally, it does not take account of variable land use and function, e.g. grazing vs. arable land. The Thiessen polygons (FIG. 5) nevertheless provide a convenient snap-shot of the villa landscape near Bartlow. Despite the methodological difficulties of defining estates, we can also compare the hypothetical Bartlow estate (1,265 ha) to other hypothetical villa estates in Britain.[108] These range from Barton Court Farm, Oxon. (311 ha[109]) to Bignor, W Sussex (800 ha of arable land[110]) to Gatcombe, Glos. (6,070 hectares[111]). The hypothetical Bartlow estate thus appears substantial, but it should be noted that not all of this putative territory would have been arable. Of course, Roman villas are evidence of consumption, not necessarily estate production — élites expressed their status and wealth through villas, and in this case barrows, but much of this wealth could have been generated from other sources.[112] These could include trade, tax-farming, and war booty, not necessarily even generated in Britain; thus it has been suggested for several villas that the owners were immigrants, perhaps most likely coming from Gallia Belgica.[113] This is of particular interest here as both the grave goods, still in need of re-assessment, and the mounds themselves have close links with that region.

LIVING NEAR BARTLOW: URBAN SETTLEMENT AND RELIGIOUS CENTRES

The inhabitants of the Bartlow villa would have travelled regularly to urban centres, not just for markets but also to fulfil their role as part of the local administration. That they served on a local town council is suggested not just by their generally high status as reflected in the barrows, but more specifically by the inclusion of a folding chair in Barrow IV. While this chair may have functioned as a simple piece of domestic furniture, the use and display of the *sella curulis* was limited to certain magistrates during the Republic and into the Empire, including members of the provincial governing élite such as *duoviri* and *quattuorviri*.[114] As Bartlow is thought to be part of the Trinovantian *civitas*, visits to the tribal capital — be that Colchester or Chelmsford[115] — would have meant a very substantial journey. The Catuvallaunian *civitas* capital — possibly at Verulamium[116] — is also located at a considerable distance. It may be more likely that the élite family residing at Bartlow was involved with one of the smaller towns in the area, most likely Great Chesterford or Cambridge (see FIG. 3). Branigan includes Cambridge within the Catuvellaunian area but Great Chesterford is effectively a border settlement.[117] Saffron Walden and Wixoe are other settlements within easy reach of Bartlow that may have been important as market centres, as perhaps was Horseheath, although here we have preferred to class it as a rural settlement.

107 Conolly and Lake 2006, 211–13.
108 Miles 1989, 123.
109 Miles 1986, 20–6, 38–42.
110 Frere 1987, 265.
111 Branigan 1977, 194–5.
112 Millett 1990, 92–7.
113 Branigan 1971, 115; 1977, 192; Miles 1989, 123; Rivet 1958, 208–9.
114 Jessup 1954, 22–33; Richter 1926, 125–9; Schäfer 1988; Wanscher 1980, 121–90.
115 Dunnett 1975, 64 and 82.
116 Branigan 1985, 67.
117 Branigan 1985, 29; Dunnett 1975, 45.

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The inhabitants of Bartlow may have worshipped within the context of their own home, but there are also a number of temple sites within the vicinity; these have been identified and mapped both on the basis of excavated structural remains and unusual finds clusters (see FIG. 3).[118] The most significant temple is perhaps the one excavated 1.6 km to the east of Great Chesterford;[119] at Castle Camp[120] and Great Wilbraham (Mutlow Hill, see below) temple sites have been suggested on the basis of unusual finds rather than structural remains.

Towns and villas were clearly closely linked, both in terms of economics and social structure.[121] For Roman Britain, systematically recorded distances between villas and towns of differing status suggest that towns of higher status appear to attract villas to a wider surrounding area. There are, however, regional differences, and Rodwell[122] has argued that Essex villas do not cluster around towns in the Trinovantian area but do occur on the Boulder Clay as opposed to the London Clay, as the former is easier to cultivate, and with higher yields. The relationship between towns and the rural settlement pattern (in particular villas) can again be modelled through Thiessen polygons, and this approach has been employed for neighbouring regions by Moore, Plouviez and West[123] and Branigan.[124] It seems most likely that the inhabitants of Bartlow had links with Great Chesterford, and perhaps Cambridge.

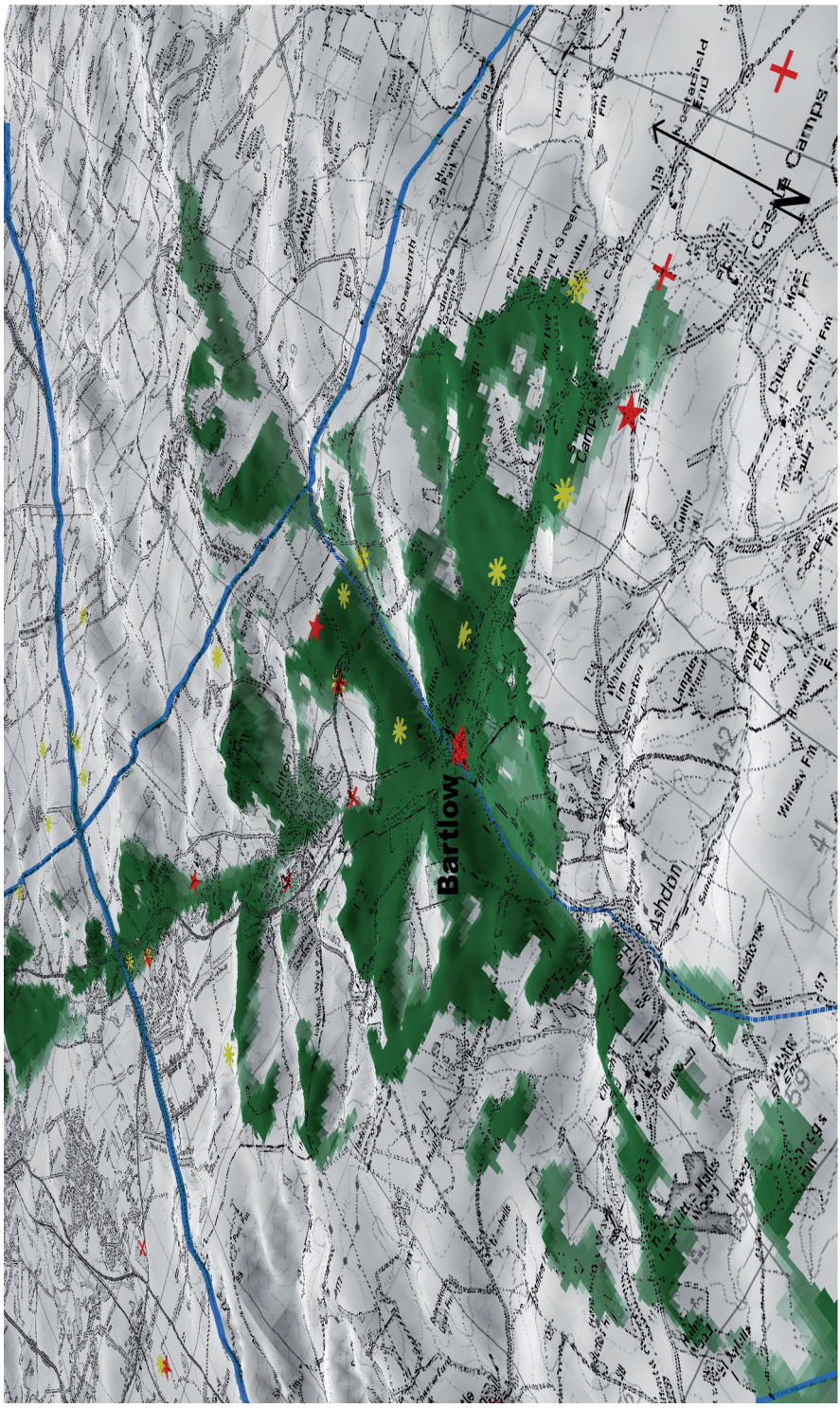
LANDSCAPES OF THE DEAD

The villa owners often invested part of their wealth into ostentatious burials, in particular barrows and graves that include glass and bronze vessels, with the so-called patera and jug burials signifying especially high status.[125] The distribution of these graves is associated with villas rather than towns or forts and the grave rite is therefore assumed to relate to the native élite, albeit an élite that had close links with Belgic Gaul and appears to have adopted very Roman objects.[126] Both Rodwell[127] and Dunnett[128] argue that these burials should be interpreted as continuing a pre-Roman tradition, and as marking the estates not of 'incomers' but of a Trinovantian nobility that retained at least some of their ancestral estates despite the effects of the Conquest and the Boudiccan revolt.[129] We have already reviewed above the evidence for barrows in Britain, and FIG. 6 illustrates the distribution of barrows and other inhumation and cremation burials within the study area.[130] It should be noted that the dating of many of the barrows in this area is disputed, as many were destroyed in the eighteenth and nineteenth centuries without adequate documentation.

The viewshed analysis (COLOUR FIG. 2) suggests that intervisibility with other Romano-British barrows was not a major concern for the builders of the Bartlow Hills. Shudy Camp barrow is not visible, although it should be noted that there is some debate about its date.[131] The Linton Heath

118 cf. Taylor 2000b.
119 Miller 1995.
120 Charge 1996; Taylor 1998, 23.
121 Hodder and Millett 1980; Millett 1990, 117–20; Percival 1976, 145; Rivet 1958, 105.
122 Rodwell 1975, 96.
123 1988, illus. 36.
124 1985, 101–26, fig. 26.
125 Nuber 1972.
126 Dunnett 1975, 101–5, fig. 25; Rodwell 1978a, 18–19 but see Crummy *et al.* 2007, 185–6.
127 Rodwell 1978a; Rodwell and Rodwell 1985, 32–3, 48–9.
128 Dunnett 1975, 101–5.
129 But see Millett's (1987) critical review of the evidence for continuity at Rivenhall, although this discussion focuses mainly on the Romano-British to Anglo-Saxon transition.
130 cf. Going 1996, 102–3; Liversidge 1977; Taylor 1984; 1993.
131 Fox 1923, 198; Taylor 1998, 78.

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Bartlow
Ashdon
Camps
Castle Camps
Castle Camps
Bartlow Hills
Bartlow Hills
Bartlow Hills

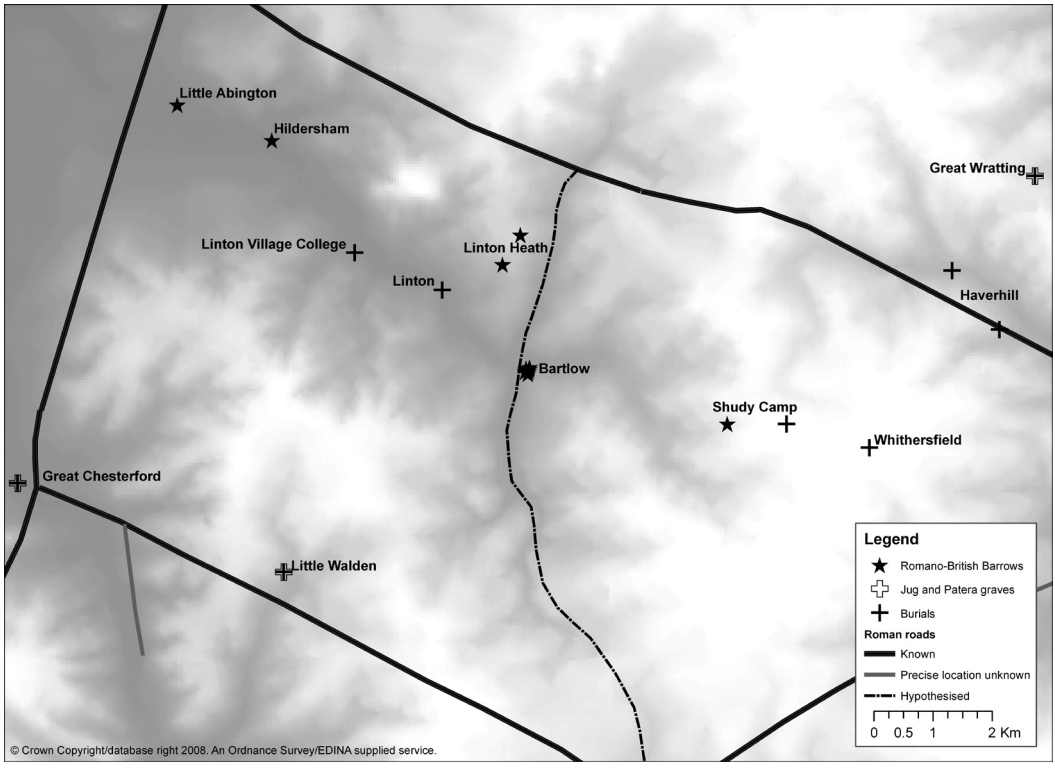


FIG. 6. Burials in the Bartlow area.

group may have been visible; this is a group of five barrows thought by their excavator, Richard Neville, to be Roman. It is possible that Roman burials were inserted into Bronze Age mounds, and there is certainly re-use as an Anglo-Saxon cemetery.[132] The substantial, almost certainly Roman barrow at Hildersham[133] may just have been visible; Little Abington is at the edge of a vista, but again its date is disputed and it may in fact be a Bronze Age mound.

The apparent lack of a visual link between the Bartlow mounds and Romano-British barrows, and to a lesser extent villas, in this area underlines the suggestion that the Bartlow Hills were constructed to communicate with, and impress, a very local audience, centred on a putative Bartlow estate.

ENCOUNTERING THE PAST

Barrows as a monument form are not limited to the Roman period, and the question of whether they represent a deliberate re-engagement with prehistoric mounds is crucial to our understanding of the Bartlow Hills. In Britain and on the Continent, the origin of barrow burials is still disputed, with some authors stressing prehistoric antecedents and others highlighting the influence of

[132] Fox 1923, 260; Kennett 1971; Meaney 1964, 67–8; Neville 1854.
[133] Fox 1923, 195–6; Dunning and Jessup 1936, 49; Liversidge 1977, 25.

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Roman tumulus burials.[134] While barrows could be interpreted as a 'counter-development to the increasing romanising pressure',[135] some of the Belgian barrows have been interpreted as military and linked to officer veterans, perhaps returning from Domitian's campaigns on the Danube.[136]

We can explore the question of origin in more detail for Britain, where arguments both for Iron Age continuity and for Roman influence have been made. Many authors see tumulus burial as a continuation of native practices by surviving local aristocratic families.[137] Funerary customs and artefacts (e.g. at Hinxton, Cambs., or the Welwyn-type graves) are thought to have been transformed during the Roman period into the 'princely native' customs, of which the Bartlow Hills are an example. If, as Dunnnett argues,[138] 'Welwyn'-type graves are accepted as marking the heartland of the Trinovantes before the Conquest, our rich barrow burials could be interpreted as continuing a pre-Roman tradition, and as marking the estates of the Trinovantian nobility, who retained at least some of their ancestral estates despite the effects of the Conquest and the Boudiccan revolt.

It is interesting to note that this proposed continuity is not, however, a straightforward process. While the practice of rich burials with bronze vessels may continue Iron Age traditions, barrows are relatively rare in the Iron Age generally, and more specifically within our study area.[139] The few examples commonly discussed, in particular Lexden and Handley, have 'Belgic' influences and, far from being an Iron Age precedent for later Romano-British barrows, could thus be seen as an early example of acculturation or 'Romanisation'.[140] There are also examples of barrows that can be explained in terms of new, occasionally military influences.[141] Rather than simplifying the issue, Wigg[142] argues that we should distinguish between different elements of the barrow custom, e.g. external form, internal architecture, grave goods and burial rite, as well as chronological and geographical variation, and the specific context of sites. We would therefore argue with Wigg[143] for a more complex mixing process, bearing in mind that many ideas would have been transmitted through Gaulish Romanised populations, and that there may be a mixing of native grave-good traditions with Roman construction techniques and vice versa.[144] A similar point is made by Morris who stresses that the provincial landscapes were dotted with prehistoric mounds, and that provincials would have interpreted barrows in terms of both their own history and Roman official symbolism. He therefore suggests two levels of analysis, 'allowing room for reinterpretation of the same ritual action by different viewers in different contexts'.[145] As in so many areas of provincial archaeology, we thus see a blending of traditions and ideas. While elements of the rite (e.g. vessel deposition) come from Iron Age traditions, the almost formulaic pattern of specific vessels, wooden box and barrow comes later, influenced by continental examples and traditions. Presumably this conspicuous display indicates that the élite has recovered from the economic and social impact of Conquest, and also reflects the results of trade and other contacts with Gaul and the Rhineland.

Below, we will explore what forms Romano-British engagement with prehistoric mounds takes,

134 cf. Toynbee 1971, 179–80; Foster 1986, 188–90; Nagy 2002; Wigg 1998, 297.
135 Wigg 1993b, 371.
136 Mariën 1980, 151–3.
137 Rodwell 1978a; Rodwell and Rodwell 1985, 32–3, 48–9; Dunnett 1975, 101–5; Taylor 1998, 40, 64.
138 1975, 104; cf. Stead 1967.
139 Foster 1986, especially 188–90.
140 Foster 1986, 197; White 1970.
141 Jessup 1954; 1959, 2–4; Charlton and Mitcheson 1984; Struck 2000, 92.
142 1993b, 372–3.
143 1998, 304–5; 1993b, 379.
144 cf. Becker 1993.
145 Morris 1992, 51.

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bearing in mind much of the recent work on 'the past in the past'.[146] We will then examine the locations of prehistoric barrows in the Bartlow area, and whether they are intervisible with the Bartlow Hills.

ROMAN ENGAGEMENT WITH PREHISTORIC MOUNDS

As discussed, while Iron Age barrows are rare, there are large numbers of Bronze Age barrows in the wider region.[147] Compared to Roman barrows these Bronze Age mounds are usually smaller and lack the steep profile of Roman examples; they are also located in different landscape settings (mainly chalk uplands). Nevertheless, Bronze Age mounds may well still have represented significant monuments in the Romano-British landscape, and may have influenced not just the siting of ritual and burial sites but even the construction of new mounds. An example of the first process from the wider study area comes from Little Paxton Quarry, Diddington, Cambs., where a Romano-British shrine was placed immediately adjoining a prehistoric ring monument and barrow.[148]

Even closer to Bartlow is Mutlow Hill, a Bronze Age barrow at Great Wilbraham, Cambs. Excavated by Richard Neville, Mutlow Hill appears to have been re-used as a centre of ritual activity in the Roman period, with the construction of a circular structure containing first- to fourth-century brooches, coins, and bracelets.[149] This has been interpreted as a temple, a view supported by a 'belt' of further objects deposited around the barrow, which also appear to be votive in character.[150] A single Iron Age coin (of Tasciovanus) was also found and an Iron Age brooch may have come from the same location.[151] The name Mutlow Hill is derived from 'mot hlow' for 'Assembly Hill', indicating that the site functioned as the meeting point of three hundreds in the post-Roman period.[152]

At Haddenham, Cambs., a Romano-British temple was built over a Bronze Age barrow, which in turn may have been sited in relation to a Neolithic causewayed enclosure.[153] This is not an example of straightforward continuity but perhaps of deliberate re-connection with the past, quite possibly within a context of social and imperial legitimisation.[154] Further afield, there is evidence for a possible Romano-British temple and ritual shafts at Silbury Hill.[155]

At other prehistoric mounds, concentrations of Romano-British objects may suggest votive offerings or casual loss.[156] A ritual interpretation has been suggested for Bisley and Tidenham, Glos., where Roman altars were found buried in round barrows.[157] However, O'Neil and Grinsell[158] argue that the Bisley barrow is Roman rather than Bronze Age in date and that Tidenham is an eighteenth-century folly, into which a Roman altar was inserted. A copper-alloy votive leaf found on Whiteleaf Hill, Bucks., has been interpreted as evidence for possible Romano-British ritual activity near the site of a Neolithic barrow.[159]

146 e.g. Bradley 2002; Bradley and Williams 1998; Eckardt 2004.
147 Fox 1923; HDAG 1991, 74–8; Lawson *et al.* 1981.
148 Jones 2001, 14–15; Jones 1994; Jones and Ferris 1993.
149 Fox 1923, 35; Neville 1852, 226–30.
150 Cambridge SMR 06320b; cf. Fox and Palmer 1923.
151 Cambridge SMR 06320a and Cambridge SMR 10956.
152 Reaney 1943, 138.
153 Evans and Hodder 2006; Taylor 2000b, 18.
154 Evans 1984.
155 Eckardt 2004, 41, with further references.
156 Darvill 2004, 227; Eckardt 2004, with further references.
157 Piggott 1962, 55.
158 1960, 54.
159 Hey *et al*. 2007, 56–8.

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Roman hoards from prehistoric barrows may represent ritual offerings, or these barrows may have been easily recognised hiding-places for valuables in times of crisis. Perhaps the best known site is the Neolithic passage grave at Newgrange, where significant quantities of Roman gold jewellery and coins have been found.[160] A hoard of more than 300 coins is known from Foxcote Hill, Glos., round barrow, and at Bartomley (Wincle), Cheshire, antiquarian diggings recovered what appears to be a hoard of Roman gold jewellery which was thought to have been hidden in a prehistoric barrow.[161] The find includes gold chains, rings and a crossbow brooch. It is now thought that the 'mound' is of natural origin, but that does not of course preclude the possibility that it was imbued with meaning in the past.[162]

At Shapwick, Badbury Rings, Dorset, three barrows in a row alongside the Roman road from Dorchester to Old Sarum have been shown to be almost certainly of Bronze Age date, with the road respecting them, and with some finds indicating Romano-British activity in the area.[163] There are, however, of course also examples of a Roman road cutting through Bronze Age barrows, as at the Oakley Down cemetery, Dorset; here we may see genuine forgetting of the past, or imperial disregard.[164] The same may be true of instances where there is evidence of Romano-British field ditches and ploughing damaging earlier mounds, as at Sales' Lot and Wayland's Smithy.[165] Finds of Roman pottery and coins within barrows may relate to agricultural activity and collapse/disturbance, or deliberate exploration of these monuments. Examples are known from Adlestrop Hill, Glos., and Giant's Caves, Wilts., where ritual activity was suggested.[166]

There is also evidence for the construction of Roman barrows on or near prehistoric ones, and for Roman burials within prehistoric mounds. At Holborough (Snodland), Kent, a Bronze Age barrow stood on the crest of the hill, strongly outlined against the sky; the Roman barrow is located just below the brow of the hill, perhaps making a conscious link with the earlier monument.[167] While the Bronze Age mound at Holborough was respected (or ignored?), two mounds at Laverstock, Wilts., are superimposed on a levelled round barrow.[168] Secondary interments of Roman date are known from some Bronze Age barrows within our study area.[169]

In Britain as a whole, Roman burials in prehistoric barrows are much less common than Anglo-Saxon ones, but the following sites are commonly mentioned in this context.[170] At Fittleton, Wilts., an extended male skeleton with two coins of Constantine II was found in a barrow that also contained fragments of Bronze Age pottery and human bones.[171] When a barrow at Idmiston, Wilts., was investigated a contracted male skeleton was found, the deposition of which appears to have disturbed a Bronze Age burial, of which only a vessel was found; the skeleton may be of Iron Age, Roman, or post-Roman date.[172] At Collingbourne Ducis, Wilts., the skeleton of an aged man was discovered lying east–west; with the skeleton was an iron knife and coarse pottery described as having 'rude indentations' for decoration and two projections as handles.[173]

160 Carson and O'Kelly 1977; O'Kelly 1982.
161 Piggott 1962, 55; Jessup 1959, 5; 1962, 858.
162 Thompson 1965, 108; cf. Bradley 2000.
163 Dunning and Jessup 1936, 52; Fowler 1965.
164 Eckardt 2004.
165 Darvill 2004, 227–8.
166 Corcoran 1970, 48, 54–6; Donovan 1938, 162.
167 Jessup 1954, 2.
168 Fowler 1965, 49.
169 Fox 1923, 197; Thompson 1954, 35: e.g. Burwell, Swaffham Bulbeck, Balsham (Cambridge SMR 06334), Thriplow Heath (Dickens *et al*. 2004, 186), and Codford St Mary.
170 Darvill 2004, 227–9; De Mallet Vatcher 1963, 434; O'Neill and Grinsell 1960, 54–61; VCH Wiltshire 1957, 242.
171 De Mallet Vatcher 1963, 434; Hawley 1910, 626; VCH Wiltshire 1957, 242.
172 De Mallet Vatcher 1963, 434; Stone 1924, 387.
173 Lukis 1899, 90.

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This has been listed as a possible intrusive Roman burial but may well be Anglo-Saxon.[174] At Bradford Peverell, Dorset, as well as a primary interment with food vessel and flint implement, an intrusive skeleton with a piece of samian was found near the top of the barrow.[175] A Bronze Age barrow near Corfe Castle, Dorset, had an intrusive inhumation burial with a penannular brooch with knobbed terminals.[176] A Roman inhumation found with three Constantinian coins is known from Hetty Pegler's Tump, Uley, Glos.[177] Darvill[178] discusses further possible burials uncovered during antiquarian excavations of Cotswold barrows. More recently, five late Roman inhumation burials, one decapitated, were found to have been inserted into an Early Bronze Age mound at Hayhurst Quarry, Newport Pagnell in Buckinghamshire.[179]

There is thus considerable evidence for Roman period interaction with and appropriation of earlier mounds, and this phenomenon is, of course, known from other areas of the Empire. For example, Roymans has examined the ways in which late prehistoric barrow cemeteries in the southern Netherlands and northern Belgium were interpreted in the Roman period (as well as medieval and modern times).[180] He argues for a 'positive appraisal and appropriation of the past landscape by the native-Roman population'. The same phenomenon was noted by Wigg[181] for Gallia Belgica.

We can map the distribution of prehistoric barrows in the immediate vicinity of the Bartlow Hills (COLOUR FIG. 2). Ring ditches and Bronze Age barrows are known from Bartlow itself, Babraham, Balsham, Fulbourn, Hildersham, Horseheath, Linton, and possibly Linton Heath, Little Abington and Shudy Camps. The viewshed analysis suggests that quite a few of these prehistoric mounds may have been intervisible with the Bartlow Hills, in particular those situated along the river valley at Shudy Camps, Bartlow, and Linton. While it is, of course, not possible to demonstrate that the location of the Bartlow Hills was chosen in relation to early mounds, this survey can suggest that earlier mounds may still have played an important role in the local landscape. A number of prehistoric flints have been found in and around the mounds,[182] and given the site's location and the density of Bronze Age barrows in the area, it is possible that some of the Bartlow Hills were built upon Bronze Age mounds.

In summary, it is interesting that in contrast to the Romano-British barrows, which as we have seen (COLOUR FIG. 2), are located at the edges of areas intervisible with Bartlow, a number of prehistoric mounds could be seen from the Bartlow Hills (COLOUR FIG. 2). We have discussed above that the past may have been important for barrow builders in the Roman provinces. While there is no direct continuity of burial rite in this area, local élites may have created deliberate links with a re-constructed and re-modelled past to express their claim to land within the new social and political context created by the Conquest, and perhaps the aftermath of the Boudiccan revolt.

LATER USE OF ROMAN MOUNDS

Having reviewed the evidence for Roman-period interaction with prehistoric monuments, it is worth considering later engagement with Roman barrows. Barrows would have been very

174 De Mallet Vatcher 1963, 434; VCH Wiltshire 1957, 242.
175 Grinsell 1959, 96; De Mallet Vatcher 1963, 434.
176 De Mallet Vatcher 1963, 434; Preston and Hawkes 1933, 444.
177 Crawford 1925, 104.
178 2004, 227.
179 Chapman 2007, 124–6.
180 Roymans 1995.
181 Wigg 1993b, 378.
182 VCH Essex 1963, 43; occasional flakes are still visible on the surface today.

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significant monuments in the landscape, and modification and re-use in the later Roman,[183] and indeed post-Roman, period should be expected, although this is often poorly recorded. At Bartlow, a fourth-century pottery sherd was found on the flank and/or top of Barrow IV, and in January 1930 after Gage's tunnel in Barrow VI collapsed C.G. Brocklebank found 'a skeleton, lying on its back, surrounded by flints' in the fill of the collapse; this may well represent a secondary (?Anglo-Saxon) burial.[184] It is also possible that the stone coffins recorded by early antiquaries at Bartlow (see above) refer to secondary burials of the Roman period within the Hills.

The excavator saw evidence for modification and re-use at the Arms Hills at Bourn, Cambs., with a post-Roman ('Danish') barrow superimposed onto a Roman one (Barrow 2).[185] A coin of Valens (A.D. 364–378) was found on top of the original barrow, and one of Constantine (A.D. 307–337) within the later one. However, a recent reinterpretation of the site suggests that it is a medieval monument associated with iron production, and that the Roman finds represent disturbed settlement material.[186]

At Linton Heath, Cambs., what is thought to be a Roman barrow had secondary Anglo-Saxon inhumations, and further barrows opened by Neville here may be Roman or Saxon, although there is also evidence for Bronze Age activity.[187] The Anglo-Saxon cemetery was an important one, with at least 104 skeletons of late fifth- to late sixth-century date recovered.[188] At Hockley, Essex, Saxon pottery may indicate an intrusive burial.[189] Whilst at the sites discussed so far Anglo-Saxon burials directly encroach onto earlier burial monuments, at Snodland (Holborough), Kent, the burials of a Saxon cemetery approached very close to the barrow but did not trespass upon it.[190]

The issue of Anglo-Saxon re-use of earlier monuments has been explored by Williams,[191] who argues for complex patterns of emulation and appropriation. Many of the same ideas have been applied to other periods,[192] and are, of course, also relevant to Roman interactions with earlier monuments.

As prominent but also liminal monuments, barrows continue to be imbued with meaning throughout the medieval and into the modern world, a fact often reflected in local folklore and place names.[193] The name Bartlow is thought to be derived from the thirteenth-century *Berklawe* — the mounds of the birch trees.[194] Local tradition also associated the mounds with the battle of Assandune which took place in 1016 between the Danish king Canute and Edmund Ironside.[195]

Legends and stories such as that a barrow contained the burial of a Roman general (with the mound being built by his soldiers using their helmets to move the required soil), or of hidden treasures and fairies are also known from outside Britain.[196]

In later times, barrows are often boundary markers,[197] and can act as assembly (e.g. Mutlow Hill) and execution places.[198]

[183] e.g. secondary burials at Holborough and Riseholme, but also perhaps Plaxtol and Handley; cf. Toynbee 1971, 182; Jessup 1954, 13.
[184] Going 1996, 103; Taylor 1998, 19; VCH Essex 1963, 42.
[185] Walker 1911; cf. Fox 1923, 194; Dunning and Jessup 1936, 49; Liversidge 1977, 23–4; Taylor 1997, 21–2.
[186] Baxter 2006.
[187] Dunning and Jessup 1936, 49; Fox 1923, 196–7; Liversidge 1977, 27.
[188] Fox 1923, 260; Kennett 1971; Meaney 1964, 67–8.
[189] Dunning and Jessup 1936, 52; Lawson *et al*. 1981, 97.
[190] Jessup 1954, 4.
[191] Williams 1997; 1998.
[192] e.g. Bradley 2002; Bradley and Williams 1998.
[193] Grinsell 1959, 55–7; Grinsell 1976; O'Neill and Grinsell 1960, 50–3; Semple 1998.
[194] Taylor 1998, 18.
[195] Gage 1834, 3–4; Goddard 1899, 349.
[196] e.g. Amand 1957.
[197] Grinsell 1991; Whyte 2003.
[198] Reynolds 1997; Reynolds 2002; Semple 1998.

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CONCLUSION

The Bartlow Hills are exceptional monuments in Roman Britain, and this paper has attempted to place them into their wider landscape context. We have explored the settlement and burial evidence for the region from published and unpublished sources, and used viewshed analysis to identify those areas from which the mounds may have been visible. There are a number of important provisos in any such analysis, and these comprise not just the extent of vegetation but also the obvious correlation between the location of the mounds and that of the roads and other sites also located on valley floors which therefore had a more open view onto them. We have only touched upon the role factors such as the colour and size of the monuments, and the colour of the background, played in peoples' subjective perceptions of the local landscape. If the Bartlow Hills did indeed have an outer layer of gleaming white chalk, their impact on the local landscape clearly would have been even more marked.

An important aspect of recent GIS analysis is an increasing awareness of spatio-temporal issues, examining the ways in which perceptions of landscapes may have changed through time, and as actors were moving through, and interacting with, the surrounding monuments and views. Applications in prehistoric archaeology include studies of the Rudston cursus and the Stonehenge area.[199] While the viewsheds above (COLOUR FIGS 1–2) show areas intervisible with Bartlow, FIG. 7 shows the changing views potentially available to an individual travelling along the main Roman road. While there are occasionally wide vistas across the landscape, perhaps the most striking result of this spatial analysis is that none of the other main villas near the road are visible from it. The issue is slightly more complicated for the mounds. The main mounds at Bartlow (but none of the surrounding area) could have been visible from the road (note that this is obscured on FIG. 7C by the symbols for the mounds), but only one of the Linton Heath barrows (see FIG. 7C) is potentially visible from the road. We have not entered detailed height information for these mounds into the model because their recorded heights (Little Abington: 0.7 m high, Hildersham: 2.4 m high, Shudy Camps: up to 4.6 m high, Linton: no information) are insufficient to make a difference to intervisibility. These additional viewsheds support our overall findings, and suggest that within this area the owners of the Bartlow Hills are not alone in rejecting an opportunity to display their wealth and power to the people moving along the major Roman roads.

The most striking pattern to emerge from our analysis is thus the focus on display to a local rather than a transient audience. While the Bartlow Hills may have been visible from the main east–west road to the north of Bartlow and from the north–south road to the west, they were not located to impress travellers; rather, the mounds may only have been visible from very limited sections of the road, presumably surrounding the points where smaller, undocumented roads running towards Bartlow turned off from the main highways. Instead, the mounds appear to have been designed to be viewed from the surrounding valleys and fields, and from a minor road thought to run past them. The location of the mounds may thus have been chosen to communicate power and status to the inhabitants of the local villa estate, as well as selected neighbouring villas. Another interesting point raised by the viewsheds is the difference between physical and visual access to an area. For example, some Etruscan cemetery sites may have been visible but were difficult or impossible to access, perhaps suggesting deliberate positioning in liminal places.[200] In our context it could be argued that even when visible from roads or settlement sites, there may have been restrictions on which parts of the monument and surrounding funerary complex could be seen. While the tops of mounds may have been visible to all, associated inscriptions and mausolea[201] may have been screened from view by an enclosing wall. Earthworks or masonry

[199] Chapman 2005; Exon *et al.* 2000.
[200] Belcher *et al.* 1999.
[201] cf. Gage 1836, 463 on a flint platform located next to the largest mound.

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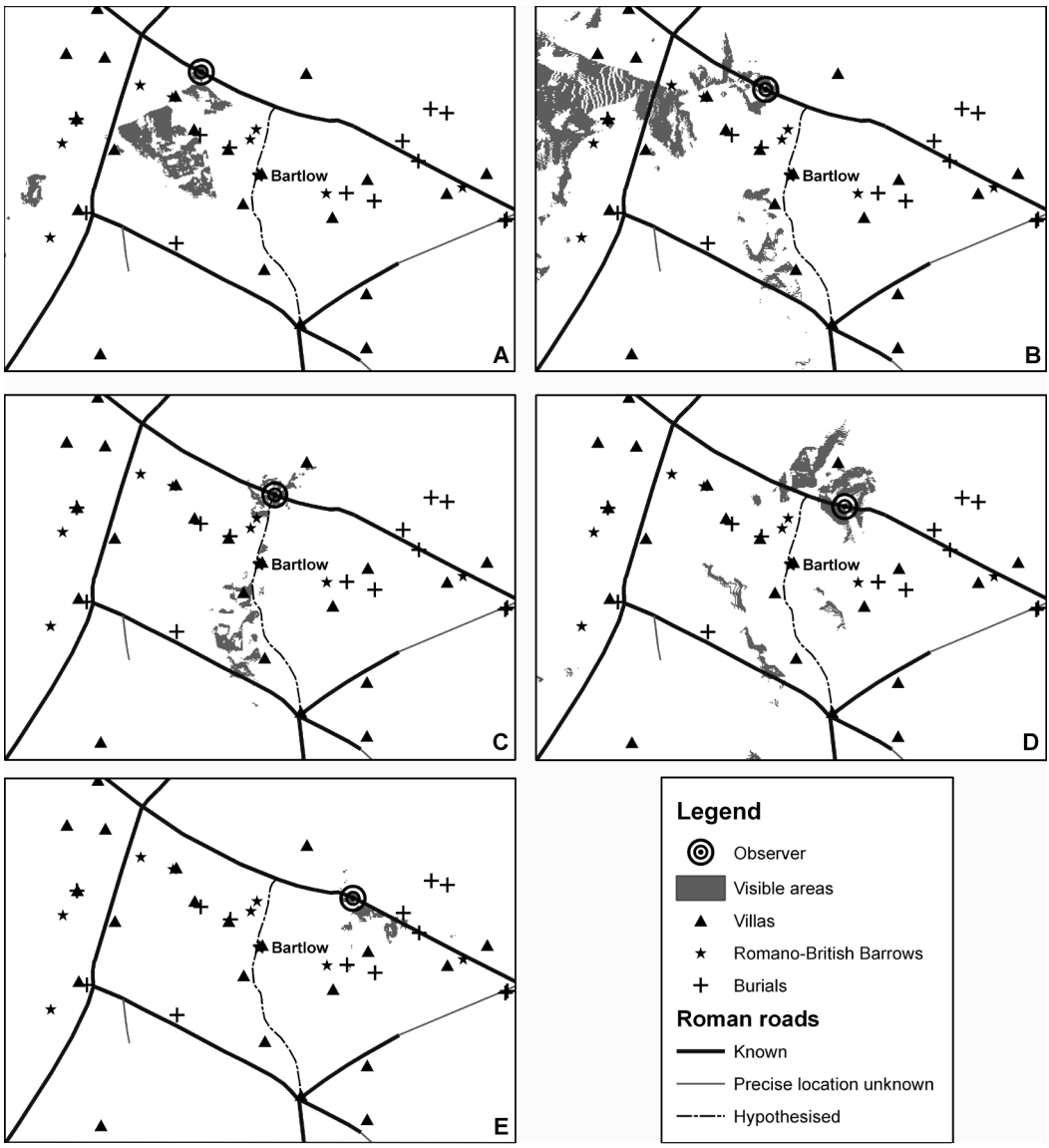


FIG. 7. Viewshed analysis from five points along the main east–west road, illustrating changing vistas available to travellers.

walls enclosing barrows are known from the Continent.[202] In Britain, walled cemeteries are restricted to the South-East (mainly Kent but also Cambridgeshire, Essex and Hertfordshire), that is the same area as barrows, and sometimes associated with them.[203] Both the area enclosed and the height and material of the walls vary greatly; the entrance can be marked by a monumental gate, and

[202] e.g. Nenning, Siesbach and Newel: Wigg 1990; Cüppers and Neyses 1971.
[203] Jessup 1959, 11–32.

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the whole enclosure can be surrounded by a V-shaped ditch as at Harpenden, Herts.[204] At Bartlow various antiquarian observers noted the presence of a very substantial enclosing earthwork.[205] Recent excavation suggests that this feature is not contemporary with the construction of the mounds but dates to the third to fourth century A.D.;[206] as there is some suggestion[207] that the large mounds were substantially raised in the later Roman period, we can perhaps also argue that the perception of these monuments was manipulated in different ways throughout the Roman period, promoting a changing sense of inclusion and exclusion (see frontispiece).

Analysis of roads, settlements, burial sites, and prehistoric barrows in the area suggests that the élite family at Bartlow literally monumentalised their claim to control over a very localised area of land, possibly constructing specific links with a past reinterpreted within the new realities of the Roman province of Britain. As in other areas of Britannia, these élite families legitimised their power not just in terms of official administrative positions and the use of Roman (or rather Gallo-Roman) objects but also ancestral, and specifically local rights.

The paper has shown how the Bartlow Hills may have related to landscapes of both the living and the dead, and attempted to provide the social context of these possible visual relationships. GIS and viewshed analysis are widely used in prehistoric archaeology but still rather neglected within Roman archaeology. This is especially regrettable given the rich and closely-dated information available for this period. It is to be hoped that further work on the detailed landscape context of other barrows will show how typical the patterns suggested for Bartlow are across the Roman provinces. More broadly, there is huge potential for a more contextual analysis of barrows in the Roman world.

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[204] Jessup 1959, 22–3.
[205] Brocklebank 1913, 255; Gage 1834, 2–3; Goddard 1899, 353; RCHM 1916, 4.
[206] Eckardt and Clarke 2007.
[207] Taylor 1998, 19.

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