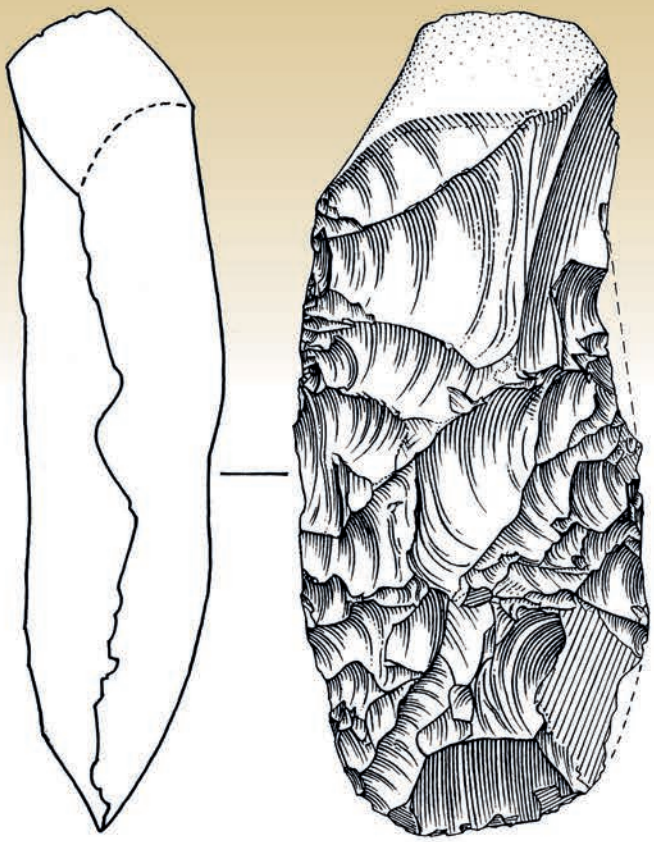
TRANSACTIONS

VOLUME 9 · 2018



The Essex Society for Archaeology & History

FORMERLY THE ESSEX ARCHAEOLOGICAL SOCIETY

FOUNDED 1852

ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

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THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

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The Society was founded in 1852 as the Essex Archaeological Society. Its objects are:

1. To promote and encourage the study of the archaeology and history of the historic county of Essex.
2. In furtherance of the above, to publish the results of such studies in its journal and to disseminate information on matters relating to archaeology and history in Essex through appropriate media.
3. To organise conferences, lectures and visits for the benefit of members of the Society and interested members of the public; to educate the wider community in the archaeological heritage of Essex; to co-operate with other bodies on matters of common interest and concern.
4. To provide library facilities for Society members and approved members of the public.

Publications

The articles in its journal range over the whole field of local history. Back numbers are available; a list and prices can be obtained on application to the Librarian. Members receive a regular Newsletter covering all aspects of the Society's activities, news of current excavations and fieldwork, and items of topical interest.

The Library

The Library is housed in the Albert Sloman Library at Essex University, Colchester, and is extensive. It aims to include all books on Essex history, and has many runs of publications by kindred Societies. Members may use the Library on any week day during Library opening hours (and on Saturdays in term time) on presentation of a reader's ticket, available on application to the University Librarian.

Membership

Application should be made to the Hon. Membership Secretary at Pentlow Hall, Pentlow, Essex CO10 7SP. The current annual rates of subscription are: individual membership £25; family membership (individual membership plus one other person) £30; institutional membership £25; associate membership (who do not receive *Essex Archaeology and History*) £15.

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Cover illustration: Mesolithic tranchet axe from Coldharbour (drawn by Hazel Martingell).

William H. Liddell M.A. F.R.Hist.S. 1937–2019

W.H. (Bill) Liddell passed away peacefully at his home in Leiston, Suffolk, on 10 August.

He had been an inspirational teacher of history and a prominent figure in the landscape of Essex historical studies for thirty years, between 1964 and 1994.

Born in 1937 in Castletown, a Durham mining village, he studied economic history at Nottingham University before taking an M.A. at the University of London. After a spell as a W.E.A. tutor organiser in Cumbria he returned to London as Resident Staff Tutor for Essex in the Department of Extra Mural Studies and subsequently as Senior Lecturer responsible for the whole programme of tutorial classes in history. Specialising in medieval and local history, with a particular interest in forest law, he taught across Essex, building a loyal and devoted following, particularly for his weekend courses at Wansfell, the Essex Residential College for Adults. It is a tribute to his teaching that many of those who attended his classes went on to make significant contributions to the study of the county's history.

Meanwhile he played an active part in the county's historical associations, as Council member, Newsletter Editor and President (1981–3) of the Essex Society for Archaeology and History, as Honorary Secretary for many years to the Advisory Board of the Victoria County History of Essex and as long-standing President of the Billericay Archaeological and Historical Society.

A long association with the Essex Record Office enabled E.R.O. to attract leading historians to many of its events and lectures. In 1982, this led to the staging of a conference to mark the 600th anniversary of the Peasant's Revolt and his subsequent editing, in collaboration with R.G.E. Wood, of *Essex and the Great Revolt of 1381.* Other publications included *Imagined Land: Essex in Prose and Poetry*, written in partnership with his wife Sue Liddell and published by the Record Office in 1996 and *From Bilbao to Becontree: The Previous History of the Papers of Sir Richard Fanshawe, Bart. in Valence Museum,* the first close examination of the papers of the 17th-century poet and diplomat of Parsloes in Dagenham, produced with his friend and colleague, the scholar of Spanish literature, Roger Walker.

A significant feature of the historical landscape in Essex between 1984 and 2006 were the series of Essex History Fairs staged biennially in various locations from 1986 to 2006. Bill Liddell was a driving force behind the earliest of these events (indeed many would say their inventor). They brought local history to the attention of tens of thousands of people around the county. In 1989, the British Association for Local History invited him to write, with me, *Running a Local History Fair*, a guideline used subsequently in many counties across the country. All of us who took part in the organising and running of those events will testify to Bill's inspirational commitment to sharing the pleasures of local history and—importantly and invariably—of having fun along the way.

Vic Gray

(Editor's note: this obituary first appeared in the Essex Journal)

THE ESSEX SOCIETY FOR ARCHAEOLOGY & HISTORY
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UPDATING THE MESOLITHIC IN ESSEX

Maria Medlycott

This article presents a review of the evidence for the Mesolithic in Essex, the first since Roger Jacobi's 1993 paper. It includes a number of new discoveries, including the identification of two burials, and the excavation of a number of significant sites along the Thames Estuary. The paper also incorporates the results of Hazel Martingell's assessment of the Mesolithic material held within Museum collections, both in Essex and in the British Museum.

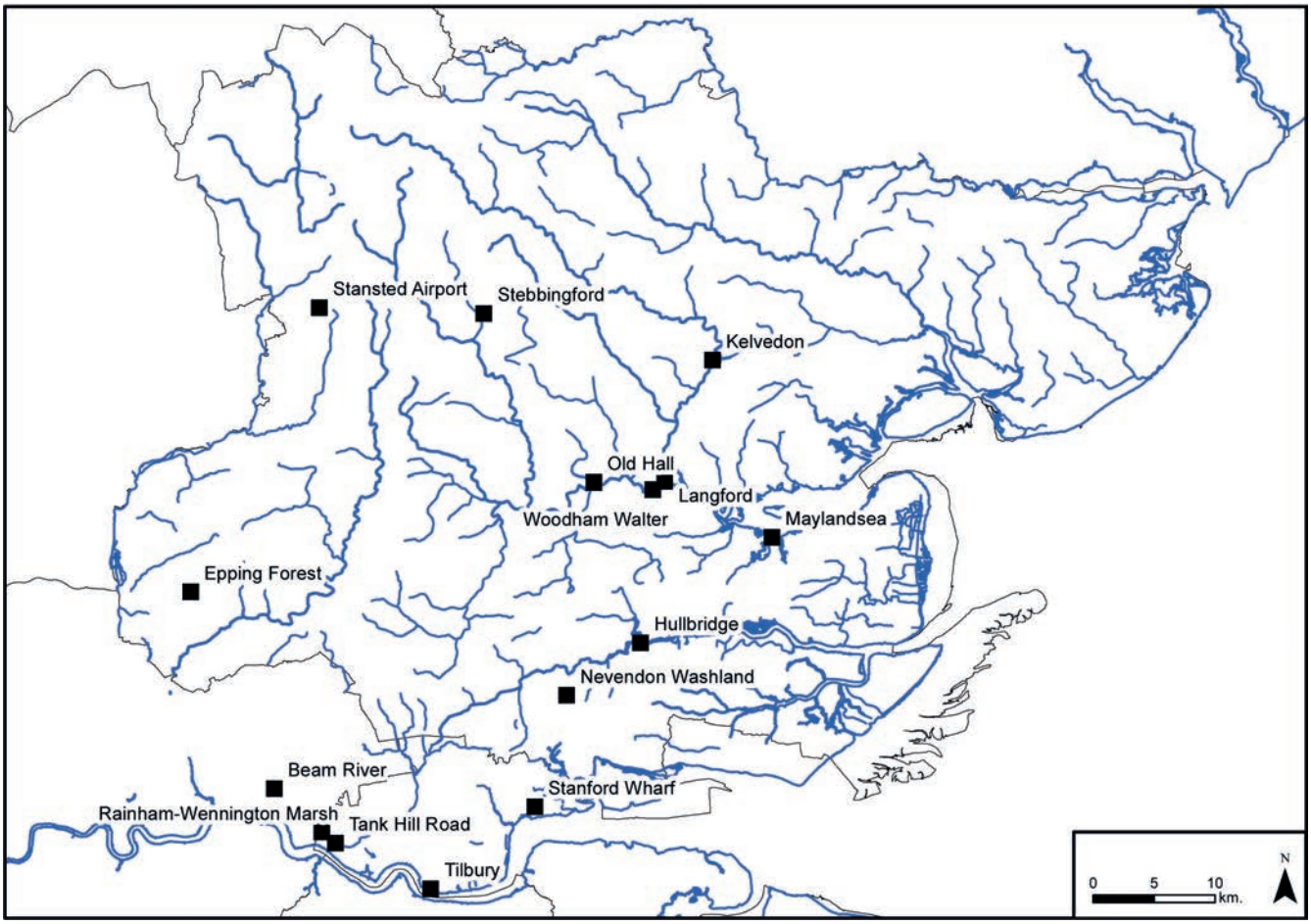

FIGURE 1: Principal sites discussed in the text (blue lines represent rivers and the modern coast line)

INTRODUCTION

One of the results arising from the Archaeology in Essex conference of 2008 (Brown *et al*. 2012) was that it was evident that there has been a lack of progress in advancing our understanding of the Mesolithic period in Essex. The same issues were raised again in the Revision of the Regional Research Frameworks (Medlycott 2011). The last full overview undertaken for the Essex Mesolithic was Roger Jacobi's paper for the 1993 Archaeology in Essex conference (Jacobi 1996), which built upon his earlier paper on the Mesolithic of Essex (Jacobi 1980). It was however evident to those working with the archaeology of Essex that there has been progress in the amount of information available for the period. This includes the mapping of Doggerland (now the North Sea Basin), the discovery of two Mesolithic burials, and a number of significant sites with either evidence for settlement or palaeoenvironmental data (Fig. 1). In addition to the chance finds of Mesolithic flints it was apparent that Mesolithic flint-work was turning up on sites that were predominately of a later date and were thus in effect being overlooked within the wider reports. The Mesolithic in Essex project thus came out of the wish to prepare an overall assessment of the state of Mesolithic studies in Essex since 1993 and to ensure that the Mesolithic was properly represented in the Essex Historic Environment Record.

The current best estimates for the dating of the Mesolithic is *c*.9600–4000 BC (Table 1); it is traditionally subdivided into the Early Mesolithic (*c*.9600–6000 BC) and the Late Mesolithic (*c*.6000–4000 BC), largely on the basis of lithic artefact typologies and technologies. All of the radiocarbon dates in this paper are calibrated to 95% confidence levels using the IntCal13. Dates referenced as BP are Before Present (AD 1950) and are uncalibrated and indicative only.

Years cal. BC		Britain	Essex
*c.*9600	Early Mesolithic	Mesolithic begins, general warming, rising sea-levels	Essex attached to continent by Doggerland
7500–6500			Tilbury I peats
6500–6000		Submerging of Doggerland	Thames I marine transgression - Development of approximation of modern Essex coastline
6000–5300	Later Mesolithic	Doggerland under water	Tilbury II peats
6065–5912			Tilbury burial
*c.*4900			Thames II transgression – drowning of the Purfleet and Rainham forests on the foreshore
*c.*4700			Langford cremation
*c.*4000		End of the Mesolithic	

TABLE 1 A calendar of approximate dates

Since Jacobi's 1996 paper there have been national-scale developments in Mesolithic studies, including the publication of the *Mesolithic Research and Conservation Framework* (Blinkhorn and Milner 2014). There have been major new excavations on both newly discovered and well-known sites, *e.g.* Star Carr (Milner *et al.* 2018), Howick (Waddington 2007), Asfordby (Cooper *et al.* 2017) and Blick Mead (Jacques *et al.* 2018). In addition, a new framework of theoretical perspectives on the period has been developed (Conneller and Warren 2006; Elliott and Little 2018). The application of a calibrated radiocarbon chronology and Bayesian analysis has considerably improved our understanding of the chronology of the period (Conneller *et al.* 2016: Healy *et al.* 2011; Griffiths 2014; Waddington *et al.* 2007; Waddington 2015). There is growing evidence for what could be described as a 'Middle Mesolithic' between *c.*8000 and 6500 cal BC, marked by microlith assemblages which include forms with certain kinds of basal retouch (Conneller *et al*. 2016; Cooper *et al.* 2017). This was anticipated by Jacobi in his 1980 and 1996 papers (Jacobi 1980, 20; 1996) where he mentions several 'Horsham' type points from Essex.

LANDSCAPE AND ENVIRONMENT

The modern coastline of Essex bears no resemblance to that of the early Holocene, when the coast was far offshore (Fig. 2). By around 13,000 BP the area was ice-free and the overall trend was towards rising mean temperatures, though with rapid climate oscillations, including the Late Glacial stadial when temperatures plummeted briefly around 11,000 BP (Murphy *et al.* 2012). Sea-levels rose, progressively submerging the low-lying plain between Essex and the continent (Doggerland). Figure 2 shows an approximate indication of the high-water mark of c.9000–8500 BP, when the Thames, Crouch and Blackwater joined to form a wide estuarine area (Murphy and Brown 1999). The extensive lowlands to the north of the estuary would have been gradually inundated as the Mesolithic progressed. Between 8500–6000 BP the Dogger Hills (now the Dogger Bank) became islands and were then fully submerged. By 7000 BP the Dover Straits were submerged and fully marine conditions had been established over the southern North Sea by around 6500 BP. By the end of the Mesolithic and the beginning of the Neolithic the Essex coast had become something approximating its present form. The evidence shows that there were herds of animals and people on Doggerland and some of these must have been of necessity pushed back into Essex in advance of the encroaching sea.

Rising temperatures saw the replacement of Late Glacial tundra vegetation by birch/pine, hazel/elm/oak/alder and lime/oak/hazel-dominated woodland, with the coastal vegetation of tidal marsh forming in front of the rising sea-levels. The cold-climate herbivores were gradually replaced by red and roe-deer and wild pig, as well as aurochs, wolves and beaver.

There are known Mesolithic sites within the modern inter-tidal zone of the Crouch and Blackwater estuaries. At Lawling Creek, Maylandsea on the Blackwater some 922 Mesolithic flints were recovered from just below a 'peaty' bed 17cm thick which crops out on the sloping foreshore platform (Vincent and George 1980; Wilkinson and Murphy 1995, 67–70). On the Crouch Site 4, Hullbridge, the Mesolithic site was on an old land surface occurring immediately below a bed of Lower Peat in the inter-tidal zone immediately west of the confluence of Fenn Creek and the River Crouch. The lithic-yielding horizon is immediately beneath a minor bench formed by the Lower Peat (Vincent and George 1980; Wilkinson and Murphy 1995, 62–7).

The Mesolithic deposits on the Thames estuary tend to be more deeply buried than those of the other Essex estuaries (Heppell 2010). There is a great deal of palaeoenvironmental information for the Lower Thames, deriving both from historic excavations as at Tilbury and from more recent investigations associated with large-scale infrastructure projects, such as the London Gateway port and the Channel Tunnel Rail link excavations.

Tilbury

The palaeoenvironmental history of the Tilbury area has been summarised by Schulting (2013). A series of five biogenics layers (Tilbury I–V) was identified by historic excavations. The lowest level, Tilbury I (TI, *c.*7500–6500 cal. BC) was

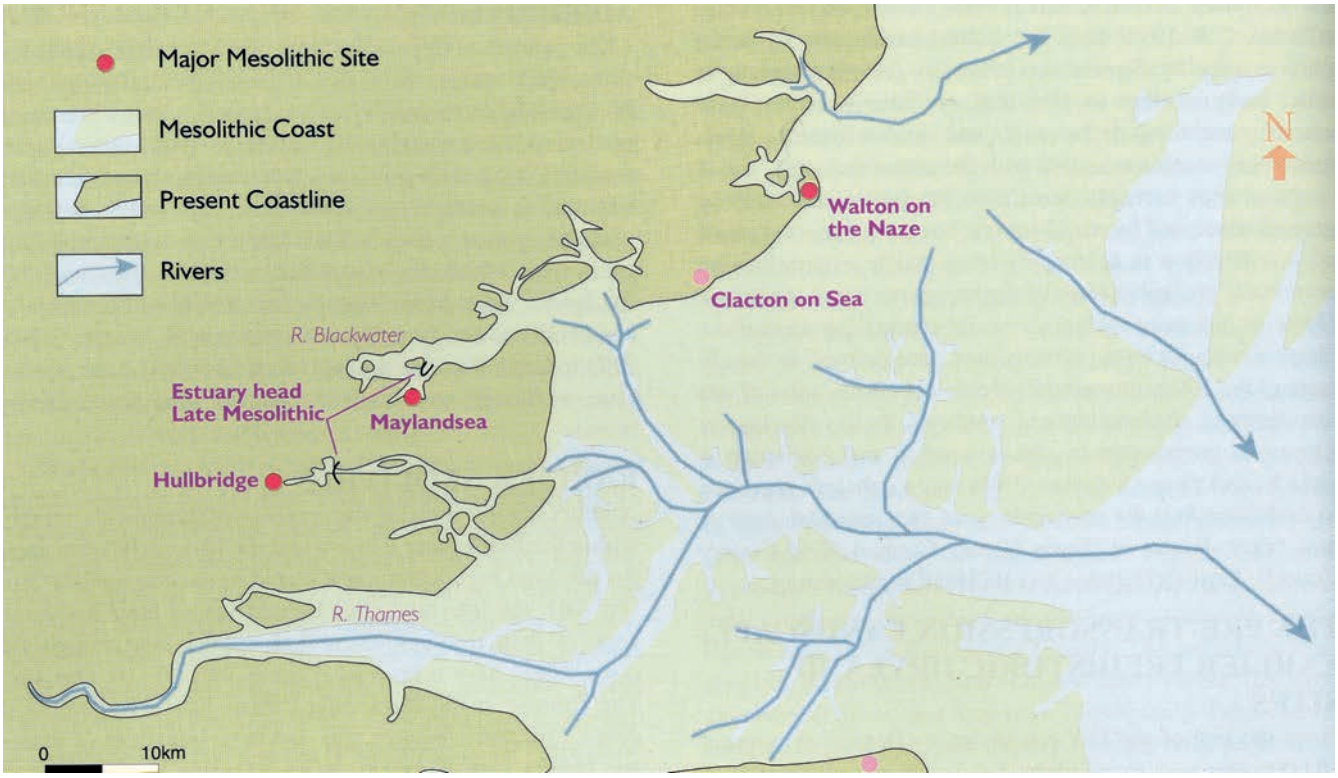

FIGURE 2: The coastline of Essex during the Mesolithic (Wilkinson and Murphy 1995). The map shows an approximate indication of the high-water mark of *c.* 7000–6500 BC. The approximate locations of the tidal extent of the Crouch and the Blackwater during the Late Mesolithic are indicated.

dominated by oak, alder and hazel, with pine, elm and low amounts of birch. The early and considerable presence of alder in TI is unusual for that period, but probably represents the favourable conditions for alder in the Thames Valley next to the river. As well as the tree pollen there is evidence for wetland grasses and herbs, with *phragmites* reeds being particularly well-represented. This organic layer was followed by a layer of silts and clays, marking the Thames I marine transgression *c.* 6500–6000 cal. BC, with the diatoms suggesting a littoral or estuarine saltmarsh environment; this was the period when Doggerland was submerged. The relative sea-level seems to have been *c.* -12m OD, with the coastline about 10km further east. Tilbury II (*c.* 6020–5800 cal. BC) was the peat layer associated with the Tilbury burial (see below) and may well represent the land surface at the time. The pollen record for Tilbury II shows a decrease in pine and the first consistent appearance of lime, together with the species that had been present in the earlier levels. About 4900 cal. BC there was another marine transgression, which resulted in the drowning of large tracts of forest on what is now the foreshore at Purfleet, Rainham and Erith. A further three transgressions followed over the subsequent millennia.

Beam River, Dagenham

Excavations on the edge of the floodplain at the confluence of the Wantz Stream and the Beam River, Dagenham, identified several Early to Late Mesolithic flint scatters as well as an important sequence of early palaeoenvironmental evidence (Champness *et al.* 2015). Here the Late Glacial floodplain was overlain by organic/peat deposits caused by increased waterlogging in the Late Mesolithic (7500–7190 cal. BC, SUERC 40833). These lie at a depth between 5.0–0.5m, and whilst the lowest levels are Late Mesolithic, the upper surface has been dated to between the Early Bronze Age and the Early Iron Age. Within the peats there is a complex sequence of organic silt clay, silty peat and peat deposits with occasional lenses of more minerogenic silt-clay and sandy silt in the lower levels. These may indicate a series of active channels or tidal incursions on to the flood plain. Pollen analysis suggests an open landscape in the Early Mesolithic with marshy and damp ground species predominating, particularly rushes (*carex*). Trees and shrubs account for only 16% of the total levels of pollen with hazel, pine and birch being the most numerous species. There was however an increase in wood cover during the Mesolithic, with hazel, pine and oak predominating.

Tank Hill Road/Aveley Marsh

Further to the east along the Thames geoarchaeological investigations along the route of the High Speed 1 route have revealed a similar environmental history (Bates and Stafford 2013). On the Tank Hill Road/Aveley Marsh site, the Early Mesolithic landscape comprised an open sandy island or promontory on the terrace edge above the Thames floodplain. The site became increasingly wooded with oak, elm and hazel, before becoming more waterlogged with alder and fen encroaching from the adjacent floodplain, and peat forming in the Late Neolithic–Early Bronze Age. On the neighbouring Rainham and Wennington Marshes the evidence for the Late Mesolithic–Early Neolithic is of oak, hazel and lime woodland,

with some ash and elm on the drier ground and alder carr and fen extending onto the floodplain.

Stanford Wharf Nature Reserve, London Gateway

Still further to the east is the Stanford Wharf Nature Reserve site, on the edge of the Thames excavated as part of the DP World London Gateway port development (Biddulph *et al*. 2012). Here the investigations recorded a sedimentary sequence beginning in the Late Glacial period (from *c.* 13,000 BC). At the beginning of the Holocene the area was largely dry ground with a sandy undulating land surface. Freshwater deposition of organic sediments occurred in low-lying areas; these included the probable basin of a small lake. The earliest organic deposits have been dated to 8290–7980 cal. BC (SUERC-35575). Flint tools dating to the Mesolithic and earlier Neolithic were recovered from the higher portions of the sandy land surface. The spread of brackish or marine conditions was recorded on the main port site from *c.*6500 cal. BC. It is apparent that the inundation was both rapid, and initially very dynamic. By the beginning of the Neolithic almost all of the former dryland on the Port site had disappeared beneath inter-tidal deposits. A palaeochannel bordered by extensive tidal mud-flats and salt-marsh cut across the site. This was dated to 5050–4830 cal. BC (OxA-24897). The succeeding periods saw the area remain as estuarine marsh.

Stebbing

The excavation of a palaeochannel at Stebbingford, Stebbing indicated an early post-glacial date (*c.*8000–6000 BC) for the lower fills (Medlycott 1996). The palaeochannel appears to have been an early tributary of the Stebbing Brook, which in turn flows into the River Chelmer. The upper fills of the channel included tufaceous sediments, likely to be of Late Mesolithic date. The sequence of sedimental deposits indicate a progressive drying of the channel, which was set within a fairly open landscape with some birch and pine; later in the sequence there is abundant evidence for willow in the form of pollen, leaves and twigs. The insect evidence also suggests a marshy habitat, with beetles that fed on willow, birch and alder. Two small, heavily patinated flint flakes of possible Mesolithic date were residual in later contexts from the site.

River Chelmer

Palaeoenvironmental sampling in advance of the construction of a new viaduct for the A138 across the floodplain of the Chelmer identified at least five palaeochannels of the River Chelmer and a tributary stream (Rackham *et al*. 2015). Of these Core-sample HN5 provided two radiocarbon dates, one for the Early Mesolithic (9121–8752 cal. BC, SUERC52869) and a second for the Late Mesolithic (4240–4040 cal. BC). The Late Mesolithic date is not consistent with the pollen evidence from the same sample. The pollen is however consistent with an Early Mesolithic date, showing the development of a grass-sedge fen community, with colonising birch, succeeded by pine, and then oak, hazel and elm. The increase in woodland is matched by the increase in shade-tolerant plants, although open areas are also attested by the presence of ribwort plantain and salad burnet, which prefer more open ground.

SETTLEMENT

The distribution of Mesolithic sites, and more particularly of finds-spots, across the Essex landscape (Fig. 3) demonstrates how widespread the evidence for Mesolithic activity is. The distribution is of course reflective of where archaeological work and development has taken place, but the distribution is sufficiently widespread to suggest that it is not entirely a product of this alone. Equally, the distribution pattern is clear as to the preference for the major river-valleys. 26% of all Mesolithic find-spots are within 250m and 39% within 500m of a major watercourse. The exceptions to this pattern are the notable group of finds on the Epping Forest ridge (see below) and smaller groups on the river terrace gravels above the Thames at Orsett and Mucking in Thurrock (Fig. 3).

Tank Hill Road, Purfleet

Excavation on the floodplain of the Mar Dyke to the west of Tank Hill Road, Purfleet (Leivers *et al.* 2007) close to the confluence of the Mar Dyke with the Thames, identified large spreads of Late Mesolithic struck flint and concentrations of burnt flint probably marking the location of hearths. The material all came from the same humic sandy peat layer, sealed by peats and alluvium. A small amount of Late Glacial, Early Neolithic and Late Neolithic/Early Bronze Age lithics was recovered from the same sand-peat layers, although their distributions were largely separate. The site was located on an open sandy island, measuring approximately 150m x 200m, with wide views across the low-lying land to the south-west, up and across the Thames. It would have been an ideal location for any hunter-gatherer group.

The main area of Mesolithic flint-working was centred around a presumed hearth, comprising a very dense concentration of burnt flint in and overlaying a shallow cut filled with burnt sand. Other areas of burnt flint may represent further hearths, or perhaps dumps from the main hearth. The flints were dominated by microburins and microliths, apparently manufactured around the hearth. Tranchet axes were knapped and re-edged to the west of the hearth, although whether this area was set aside for tool manufacture and maintenance or for woodworking tasks using the tools themselves, which were then sharpened as the need arose, is not known. Core tools and scrapers were also recovered. The evidence suggests periodic occupation of a site, although the absence of charred plant remains and faunal assemblages means that it is not possible to say whether particular seasons for visiting were favoured.

The site became increasingly wooded with oak, elm and hazel, before becoming more waterlogged with alder and fen encroaching from the adjacent floodplain, and peat forming in the Early Bronze Age. Early Neolithic activity on the site is represented by leaf-shaped arrowheads and a laurel leaf, with a small quantity of bowl-type pottery. However, it is not possible to demonstrate definite continuity between the Late Mesolithic and the Early Neolithic.

The Beam River Valley, Dagenham

The Mesolithic flint-scatters excavated at the confluence of the Wantz Stream and the Beam River, Dagenham (Champness *et al.* 2015) were located on the interface between the underlying sands and gravels and the Late Mesolithic peat, although there was evidence that some of the finds had originated during

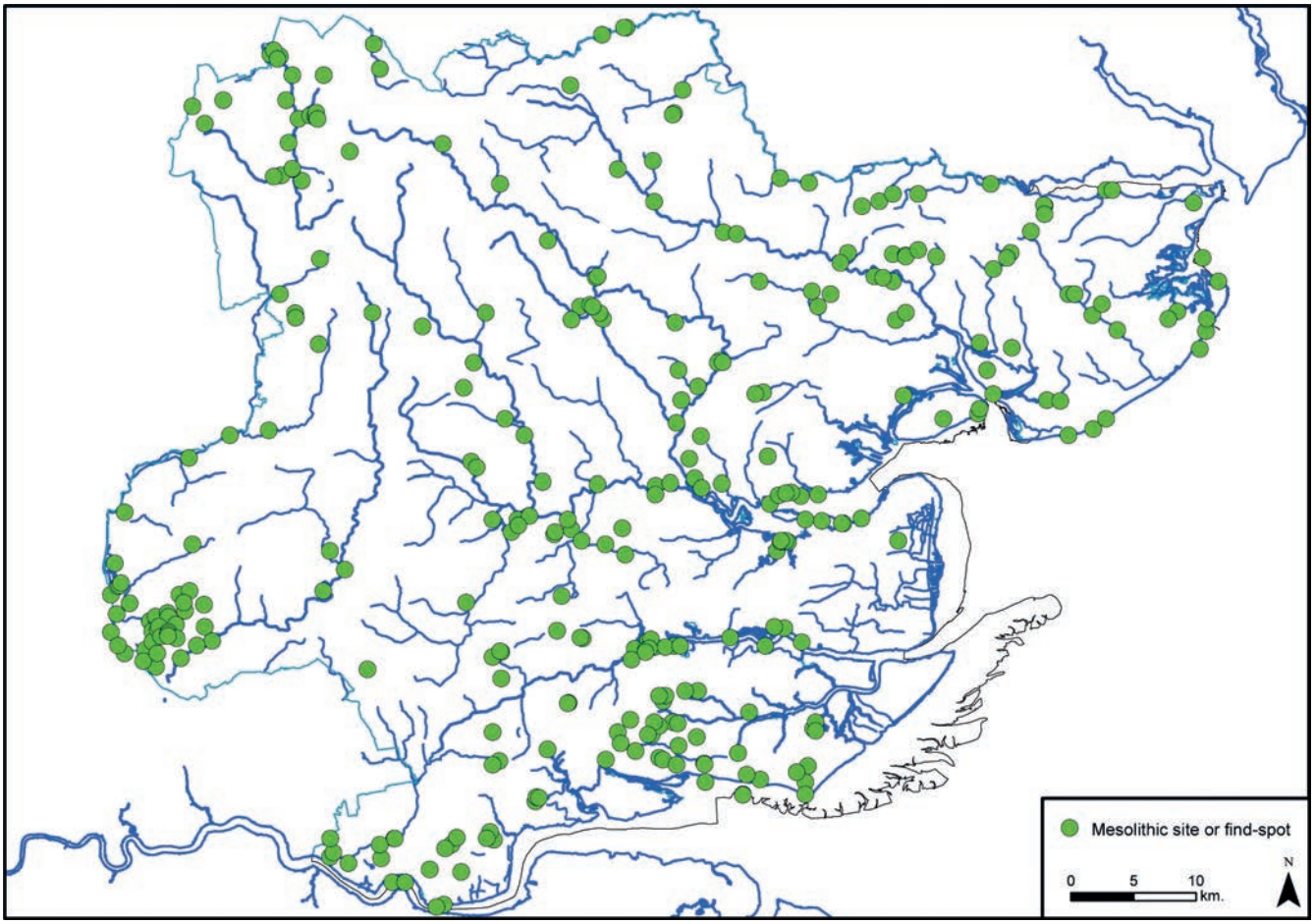

FIGURE 3: Distribution map of Mesolithic sites and find-spots.

the period of peat accumulation and migrated down through the softer sediments to accumulate on the same stratigraphic horizon as their predecessors. The scatters are sited on slight bends on the rivers where the sands were more extensive and had a gentler slope. Material of Early Mesolithic date was recorded from Scatters 1, 3, 4 and 5, of which 3 was the largest, covering an area of 50–80m². The excavator considered that it would have generated several thousand flints if it had been fully excavated, putting it in the second level of the settlement hierarchy proposed by Mellars (1976). It appears to have been visited on several occasions, but each of the visits was fairly short-lived. The other sites were probably associated with the principal area, but were not all necessarily contemporaneous with each other.

The two Late Mesolithic scatters (2 and 4) were located on south-facing slopes running down to the Beam and Wantz respectively. They were of a similar size to that at Scatter 3, and may represent the activities of a single-family group. Neither scatter was fully excavated. A number of the tools represented, in particular the microliths, are unusual in form and size, and it has been suggested that they may represent the experimental work of individuals learning the craft of flint-knapping perhaps in adolescence.

Old Hall, Boreham

Excavation at Old Hall and Generals Farms, Boreham (Germany 2014) on the floodplain beside the River Chelmer recovered evidence for Late Mesolithic/Early Neolithic activity in the form of flakes, blades, chippings and core debitage. The raw materials were sourced from flint nodules from the bed of the river or its banks and eyots. Some of the material was recovered from a series of shallow pits, whilst more came from a palaeosol that represented the remnant of a Late Mesolithic/Early Neolithic floodplain topsoil and the hollow of a tree-throw. The site should be seen in conjunction with the other known Mesolithic sites along the length of the Chelmer Valley, at Chelmsford, Great Baddow, the Langford burial (see below) and at the head of the Blackwater estuary.

Nevendon Washlands, Nevendon

Excavation on the Nevendon Washlands site recovered numerous Mesolithic flints from a buried ploughsoil which sealed Middle and Late Bronze Age features (Williams 2011). It is evident therefore that the flints were residual, but it is probable that they derived from the original land-surface on the site. The flints comprised a range of toolkit elements, including a pick, an axe and adze, scrapers, burins and microliths. The largely decorticated flint was brought to Nevendon Washlands, which is not geologically a flint-rich area, and further processed, as evidenced by the blade cores and core tools. The range of flint implements present would suggest a settlement in the immediate vicinity. A possible Late Mesolithic structure was identified by the excavator. This comprised a small, oval-shaped stakehole structure with no direct dating evidence, although Late Mesolithic flints were recovered from the vicinity (Williams 2011, fig. 3). The site is

located on the watershed of the Crouch to the north and the Thames to the south. The edge of the site is formed by a small tributary of the Crouch.

The Stansted Airport excavations

The significance of the large-scale excavations at Stansted Airport (Havis and Brooks 2004; Cooke *et al*. 2008) for the understanding of the Mesolithic in Essex is not so much in what was found, as in where it was found. The sparse evidence consists of small scatters or isolated pieces of flint, some of which such as the microliths and tranchet axes (see cover illustration of a tranchet axe), can be confidently dated to the Mesolithic, whilst others *may be* Mesolithic. None of the material was *in situ*, being mostly residual in later features or surface finds. The evidence is suggestive of mobile groups moving through the landscape but not staying for any length of time. However, all of the finds sites occupy similar positions in the landscape, on the edge of the plateau, near the spring line, overlooking watercourses, rather than on the boulder-clay plateau. What is not entirely certain is how much the evidence for geographical preferences is also a reflection of where the excavations were located, as they too favoured the edges of the boulder-clay plateau, rather than the centre which was already occupied by the existing runway.

Woodham Walter

The excavations at Woodham Walter recorded two pits which could have been Late Mesolithic in date (Buckley and Hedges 1987). Mesolithic flint types included blade cores, blades, core rejuvenation flakes, microliths and a micro-burin was recorded. Taken as a whole, the flintwork could represent 'the palimpsest of what was once a multiple-focus Late Mesolithic site', most of which had been destroyed by later activity.

The Chase, Trench J, Kelvedon

A single pit on what was a mainly Late Iron Age–Early Roman site produced oak charcoal with a radiocarbon date of 5800–5480 BC (HAR 4633) from the fill (Eddy and Turner 1982). The pit was oval in plan (1.10–1.6m and 0.5m deep). The only find recovered was a single flint flake from the very top of the pit fill. There were further undated pits in the area, which could potentially have also been Mesolithic in date, although they differed in form from the dated example. Mesolithic and later flints were frequently recovered from Late Iron Age–Early Roman ditches or in cleaning over the brickearth areas on the site. The site is located on the brickearth terrace above the floodplain of the River Blackwater.

BURIALS

Tilbury Docks

This inhumation is really an old discovery of a partial skeleton from 1883, which was found during the construction of the new docks at Tilbury. The skeleton comes from a depth of nearly 10m, in the uppermost of 0.5m of a sand layer, underlying an alternating sequence of peats and estuarine silts and clays. Re-examination of the burial by Rick Schulting, University of Oxford, including AMS radiocarbon dating, now identifies the body as an adult male, with two healed cranial injuries, dating to the Late Mesolithic, 6065–5912 cal BC (Schulting 2013). Schulting thinks that the burial was probably an intentional burial, as the small bones of the hands and feet which were present indicate that the body had been buried intact, as these are the body parts most easily lost during decomposition. There was no record of any grave offerings being found with the burial, although the circumstance of its discovery was not conducive to the recovery of very small items.

Langford

The second burial is even more unusual, in that it is a cremation burial (Gilmore and Loe 2015; Schulting *et al.* 2016). It comprised a small deposit of burnt bone in a charcoal-rich deposit, probably representing re-deposited pyre debris. It is thought that the burial represented a single adult or older juvenile, but no further indications survived for estimating a more precise age or sex. It has been radiocarbon dated to the mid-5th millennium BC (6660 ± 30BP; 6680 ± 28 BP; 6695 ± 31 BP). Three struck flints (a blade, blade-like flake and a flake) were recovered from the primary fill of the cremation deposit; technologically these are all entirely compatible with a Mesolithic date. The burial represents the first positively identified cremated human remains from the Mesolithic in Britain. Cremated human bone is known from Mesolithic Ireland (Collins and Coyne 2003) and from Europe (*e.g.* Brinch Petersen and Meiklejohn 2003).

Mesolithic human remains are extremely rare in Britain. Recent research has identified only 20 Mesolithic burial sites (Meiklejohn *et al*. 2011). Almost all were dated to the Early Mesolithic. The new Essex examples thus make a significant contribution to a very small corpus of evidence for Late Mesolithic burials. Of the burials reviewed by Meiklejohn, sixteen were from cave or rock-shelter sites, three from shell middens and only one from an open-air location. Schulting (2013) suggests that there was possibly a preference for riverside locations, as there appears to have been for settlement, and as a consequence many have been lost either to erosion or buried under sediment, as is the case at Tilbury. Both the Tilbury burial and the Langford cremation come from open-air locations close to rivers.

EPPING FOREST: A LANDSCAPE STUDY

At Epping Forest it is possible to make some observations on the distribution of Mesolithic sites across a distinctive landscape. S. Hazzeldine Warren was active as a collector and excavator in the Forest between 1913 and 1954 and Hazel Martingell has made available for the purposes of this study the results of her examination of the Warren Collection (Table 2, Fig. 4) in the British Museum (Warren 1913, Warren 1918). The Early Mesolithic finds from Warren's excavations at the Clay Pit, Hill Wood, High Beech, have been previously described by Jacobi (1980). The excavation at High Beech also recovered what Warren describes as a 'pit-dwelling'. Although no further details exist of this feature the finds themselves are strongly indicative of a settlement. The distribution of Mesolithic finds recovered by Warren by surface collection from the environs of the Forest is suggestive of a landscape that was being fully utilised, albeit at different degrees of intensity. The principal area of settlement was undoubtedly at High Beech Clay Pit where over 2,500 flint artefacts were recovered together with about 3,000 bits of flint debitage and the putative 'pit-dwelling'. Further find-spots in the vicinity of the High Beech are suggestive of associated activity around the main site. There are smaller focuses of activity at Loughton

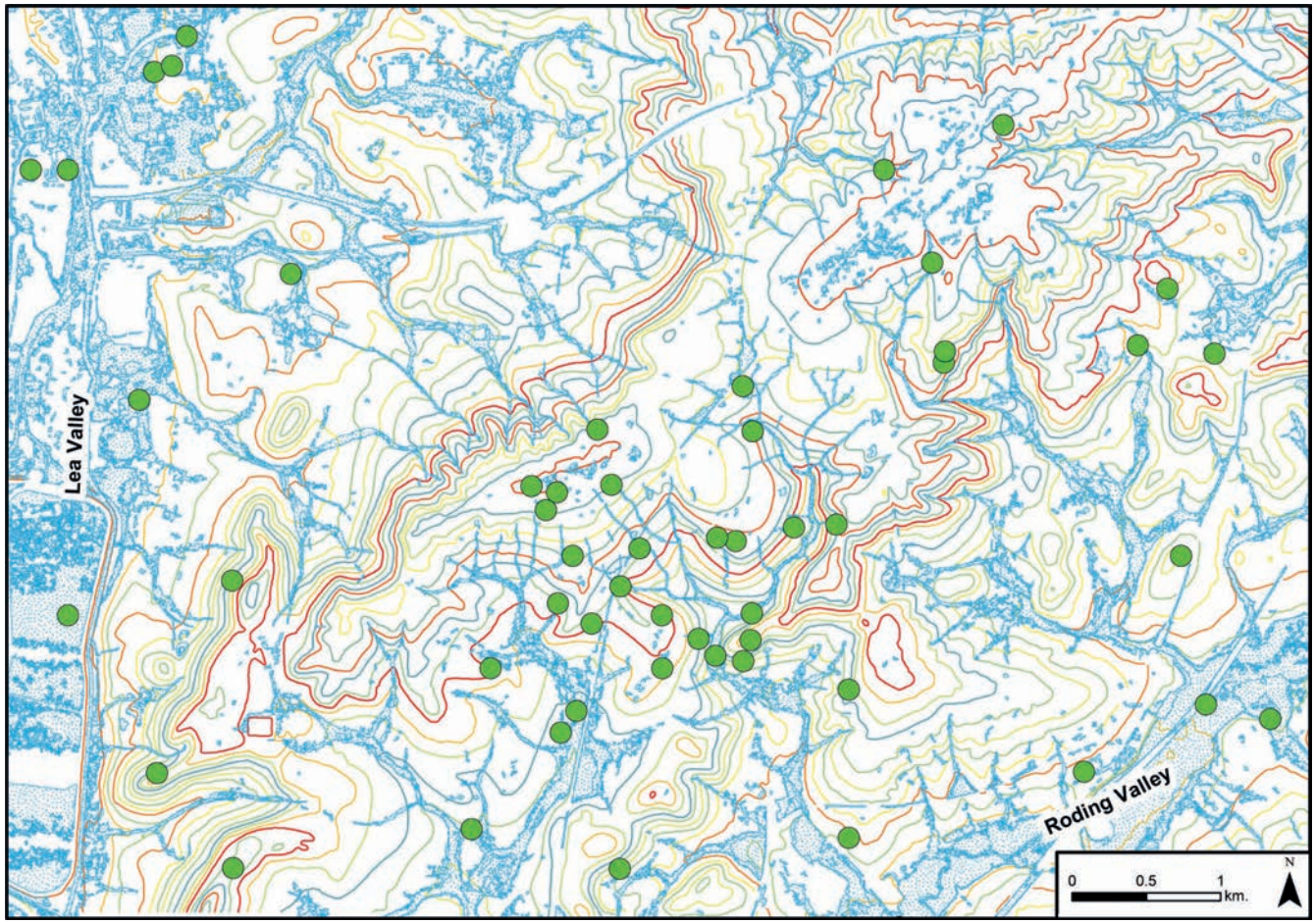

FIGURE 4: Distribution of Mesolithic sites from the Warren collection in the Epping Forest area (the locations are approximate).

Camp and possibly at Loughton (it is not clear from Warren's records whether these represent two separate collection areas). Here though, the number of finds recovered is much smaller, the full range of artefacts is present, and these may represent satellite or transitory settlements. At Ambresbury Banks, Furze Ground, Monks Wood and Strawberry Hill there are smaller groups of finds, perhaps indicative of short stays or specific activities in those areas. All of these sites are within easy reach of High Beech. The remainder of the sites comprise one or two finds, and probably represent individual episodes of loss by people who may well have been based at High Beech. Epping Forest is unusual for Essex Mesolithic sites in that it is located on a ridge between two major watercourses rather than in a river valley. However, there is surface water, comprising small tributaries flowing to the east to join the Lea and west to join the Roding and numerous small ponds. High Beech is located on the crest of the ridge above the Lea Valley, with wide views in that direction. There are known Mesolithic sites in both the valleys of the Lea and the Roding, and it is possible that the High Beech site represents one part of a seasonal usage of a larger landscape encompassing both the wooded ridge and the river floodplain.

THE TRANSITION TO THE NEOLITHIC

The transition from the Mesolithic to the Neolithic period, with the introduction of farming, pottery and large-scale monuments, appears to have been a relatively gradual process. Frances Healy's papers on the Neolithic in Essex and Eastern England (Healy *et al.* 2011; Healy 2012) incorporate the most recent dating evidence for this period, whilst Nigel Brown in his paper on the Neolithic landscapes of the Chelmer Valley and Blackwater Estuary describes a 'pattern of shifting settlement in successive, small woodland clearances, dependent as much on wild plants as cereal cultivation' (Brown 2002). The distribution of sites that have Late Mesolithic/Early Neolithic flintwork and those that have Early Neolithic artefacts overlaps spatially (Fig. 5). This trait is particularly notable in the Chelmer Valley/Blackwater Estuary. Here there is also a definite preference for both types of sites to be close to water, with the majority sited on the edges of the floodplain (some of these due to sea-level changes are now in the inter-tidal zone). As much of the plant food identified at the particularly low-lying sites, such as at the Stumble, is autumnal, it is possible that they were occupied on a seasonal basis, both in the Mesolithic and Neolithic period.

FUTURE RESEARCH

This paper is intended to be a general overview of developments in our understanding of the Mesolithic in Essex since Jacobi's 1996 paper. Future research aims for this period are presented here, but they are no means exhaustive and it is probable that as new discoveries are made the questions that require answering will also change. Essex also has the potential to contribute towards the national research aims identified as part of the *Mesolithic Research and Conservation Framework* (Blinkhorn and Milner 2014) and the regional aims identified

	Scraper	Blade	Microlith	Microburin Burin	Flake	Core	Tranchet adze	Piercer	TOTAL
High Beach Church		1							1
High Beach	2				2	2			6
High Beach Pauls Nursery		1							1
High Beach opp. The Kings Oak		3	1		1	10	1		16
High Beach, Hill Wood Old Clay Pit	24	685	89	54	1657	114			2625
In and nr Ambresbury Banks	2	10		1	9	4			26
Blackweir Hill, Clay Rd, Sandpit Plain		1							1
Broad Strood Plain					3				3
Cuckoo Pits, NW Connaught Water					2				2
East of Debden					1				1
Debden Slade Area	2	2			3	2			9
Green Ride, NE Earls Park		1							1
Fairmead		1			4				1
Hill Wood nr Fairmead		3			3	6			12
Furze Ground, nr Hangbury Slade, 1.9m N Loughton	1	6			12	4			23
West of Golf Links					1				1
Jacks Hill					1				1
NW Monks Wood					1	2			3
Yardley Hill, nr S end Forest					1				1
Long Hills stream		1				1			2
Monks Wood	2	3			8	5		1	18
Near The Robin Hood		1				1			2
Gravelpits, SandPit Plain, W of Baldwins Rd		1			1				2
Shelleys Hill		2			5	2			9
Strawberry Hill	2	3			6	1			12
Staples Brook		1			1				2
taples Hill		3			1	1			5
Theydon	1	1			1	1			4
Warren Wood		1							1
Warren Hill		1							1
Loughton	4	24	4	1	18	55			106
In and around Loughton Camp	5	23	1	1	54	25		1	109
Garden of Sherwood, Loughton	2	2			2	1			7
Staples Road, Loughton		1							1

TABLE 2 Mesolithic flints from the Epping Forest area (identifications by Hazel Martingell)

as part of the ongoing review of the Regional Research Frameworks for the East of England (Available: http://eaareports.org.uk/algao-east/regional-research-framework-review/ (accessed 24 October 2019)).

The 2011 Regional Research Framework seminars (Medlycott 2011) identified a number of issues relating to the study of the Mesolithic in the Eastern Counties:

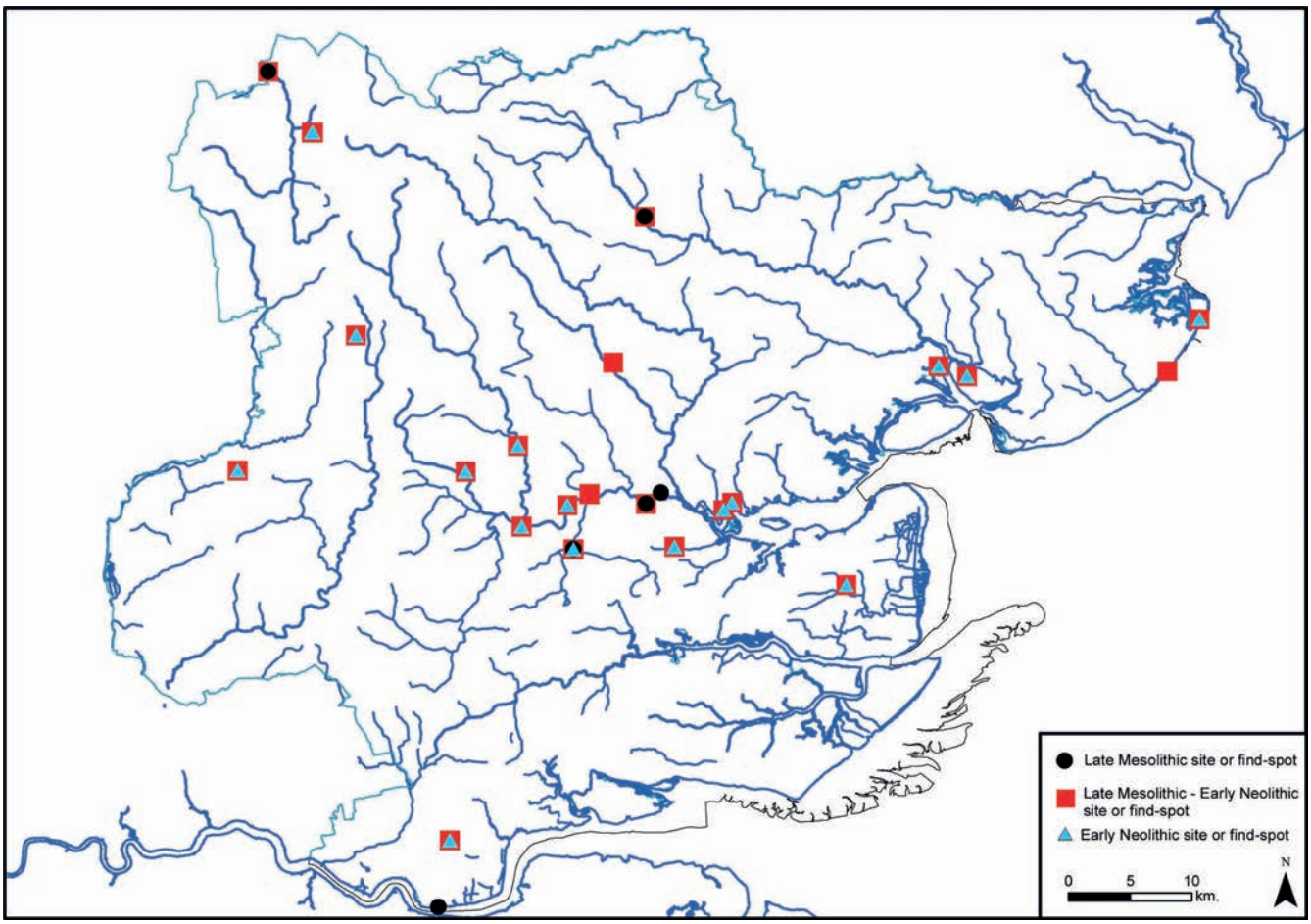

FIGURE 5: Map showing the distribution of Late Mesolithic and Early Neolithic sites and find-spots

1. Should fieldwork methodologies be adapted or new methodologies adopted in order to better target this period?
2. Development of a predictive model for identifying potentially important Mesolithic sites (settlement, palaeoenvironmental resource, etc.), including the collation of existing Mesolithic material data. This work should include a chronological dimension to identify changes over time (relative sea-level changes, cultural choice, *etc*.).
3. A fuller understanding of Mesolithic technology is required.
4. The coastal deposits represent a vanishing resource (both geological and artefactual), which needs to be monitored and recorded before it is lost.

Jacobi identified a number of research questions in his 1996 paper. In particular he made the point that find spots of Early Mesolithic microliths were very common in Essex, but that Late Mesolithic sites were more rarely identified (Jacobi 1987; 1996). He suggested that this may reflect changes/reduction in activity coinciding with the development of dense lime woodlands which were resource poor when compared with earlier environments. However the more recent work in the county, particularly the discovery of two Late Mesolithic burials and the Tank Hill Road and Dagenham sites suggest no reduction in activity in this period. It is possible that Late Mesolithic sites are more overlooked, perhaps due to site location (*i.e.* buried by peats or alluvium) or because surface collection favours collection of larger earlier forms.

Jacobi raised the lack of faunal and other organic finds as a major deficit in the understanding of the Mesolithic in Essex, and there has been little improvement on this issue. To the north and east of Hullbridge a palaeochannel of the former route of the River Crouch has been identified. It is thought to have been an active channel during the Mesolithic and it is likely that waterlogged deposits contemporary with the occupation already recorded for the Hullbridge area are present (Murphy *et al*. 2012). This site currently represents Essex's best hope for a site with Star Carr-like preservation of organic artefacts. If the opportunity arises this site should be considered for further research and excavation.

The identification of two Mesolithic burials, an inhumation and a cremation, by radiocarbon dating, raises the possibility that other examples may have been found and not identified due to the lack of associated artefactual evidence. It is recommended in future that all burials that cannot be dated by other means are radiocarbon dated.

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Late Bronze Age and Medieval Remains at Boars Tye Road, Silver End

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With contributions by Trista Clifford, Anna Doherty and Helen Walker

Archaeological investigation of land west of Boars Tye Road, Silver End, has identified evidence of Late Bronze Age settlement in the form of a post-built roundhouse and associated features. These remains provide an important insight into settlement and land use in the Brain Valley during the Late Bronze Age period in particular, contributing to the limited corpus of excavated sites in this area of the county. In addition, a large medieval ditch was also recorded. Presumably a field boundary, its presence is considered in relation to agricultural land use of the Cressing Temple estate and its surrounding landscape.

INTRODUCTION

Archaeological investigations were carried out in advance of the proposed residential development of land west of Boars Tye Road, on the northern edge of the village of Silver End. This consisted of sample trenching the 2.2ha site and subsequent excavation of two areas of significant archaeological remains, totalling 944sq m, within it. These works revealed the remains of later prehistoric and medieval activity comprising a Late Bronze Age roundhouse with associated features and a substantial medieval ditch, as well as several post-medieval/modern features. Full details of the background to the project and full descriptions of all features and finds from the fieldwork can be found in the site archive, which will be deposited with Braintree Museum (site code SEBT16).

BACKGROUND

The village of Silver End is situated *c.*5km south-east of Braintree and 5km north of Witham. The development site was located along Boars Tye Road on the northern edge of the village (NGR TL 8077 2025; Fig. 1) and consisted of rough grassland with occasional small trees and shrubs encroaching around its perimeter. The site was located on the boulder clay plateau, on the interfluve between the River Brain to the south-west and the River Blackwater to the north-north-east. The British Geological Survey identifies the underlying solid geology as London Clay Formation, with the superficial geology across the site being recorded as Lowestoft Formation Diamicton (chalky till or 'Boulder Clay') (British Geological Survey 2017).

The area between the Rivers Brain and Blackwater is one of known later prehistoric, Roman and medieval settlement and land use. For example, extensive excavations at Cressing Temple, located 1.7km to the south-west of the site, revealed potential Bronze Age structural features (Robey 1993, 37–8). Ongoing excavations at Bradwell Quarry, 0.75–1km north-east of the site, have revealed later prehistoric features, including Middle Bronze Age pits, a Middle Iron Age roundhouse and Middle Iron Age pits, and more recently a Middle to Late Bronze Age roundhouse (ASE 2017a, b).

The Rivenhall Roman villa is situated 3km south-east (Rodwell and Rodwell 1986) and other potential villa sites have been tentatively identified along the Brain valley, to the west and north-west of the site, at White Notley, Black Notley and Tye Green (Journal of Roman Studies 1955, 137). Part of an Early Roman farmstead has been recorded during recent investigations at Bradwell Quarry (ASE 2017a), whilst the 1998–2005 excavations at Dovehouse Field, adjacent to Cressing Temple, revealed the remains of Late Iron Age and Roman enclosures and occupation activity (ASE 2014; Atkinson and Ennis in prep.). A Late Iron Age and Roman occupation site was investigated at Cressing Churchyard located 1.3km to the west-north-west (Hope 2004).

The medieval landscape surrounding the site was agricultural in nature and characterised by scattered farms and small villages, such as Cressing (Robey 1993) and Rivenhall (Rodwell and Rodwell 1986; 1993). At Cressing Temple, medieval occupation and land use was associated with the manor granted to the Knights Templar in 1136 and subsequently the Knights Hospitaller in 1312 (Page and Round 1907, 177–8; Robey 1993; Ryan 1993). The excavations at Bradwell Quarry uncovered the remains of a number of medieval enclosed settlements, including a relatively high-status farm and hall complex (ASE 2017a).

The post-medieval landscape around the site was rural in nature, with historic cartographic evidence depicting the agricultural use of land since *c.*1773. A number of post-medieval standing structures and existing farmsteads are situated within the vicinity of the site and many are considered to have their origins in the medieval period, the closest one being Boars Tye Farm (Reaney 1935, 296, 573). The site and its immediate surroundings continued in arable use into the 19th and 20th centuries, as evidenced by Ordnance Survey mapping.

FIELDWORK RESULTS

Within the two excavated areas, a number of pits and post-holes were recorded (Fig. 2), the majority found cutting into the natural 'Boulder Clay' comprised of variable yellow chalky clay, reddish brown silty clay and gravel. These remains were generally sealed by a *c.*0.10–0.20m thick subsoil deposit of yellowish-brown silty clay with occasional flint gravel inclusions. Overlying this was a *c.*0.25–0.40m thickness of dark brown friable clay silt topsoil. Two periods of significant activity are identified: Late Bronze Age (Period 1) and Medieval (Period 2). A small number of late post-medieval to modern ditches and drains that crossed the site all cut the subsoil, substantiating their late date. This most recent period of agricultural land use is not considered further. Undated features lacking association with dated remains, though located on site plans, are similarly not described and discussed.

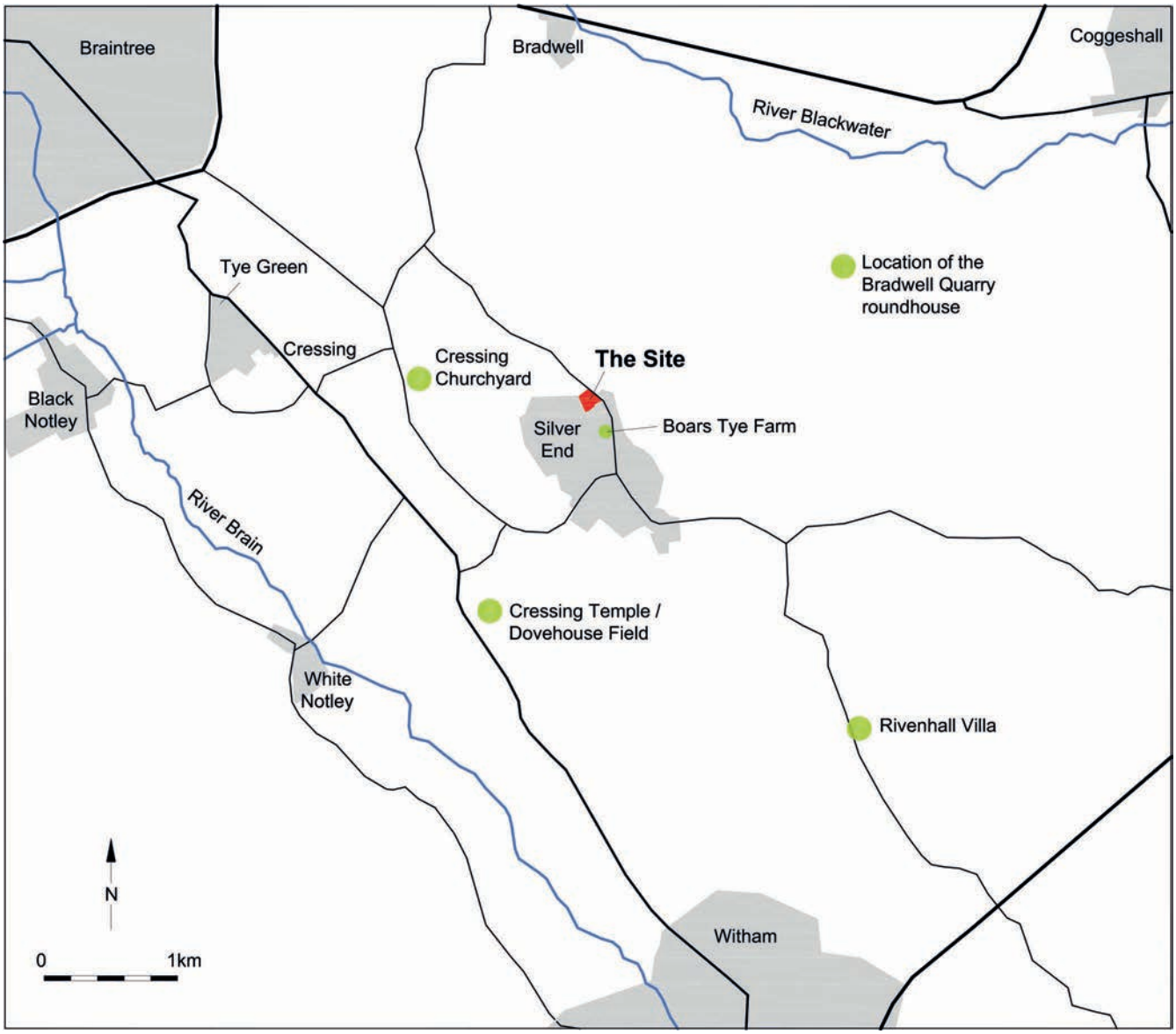

FIGURE 1: Location plan

Period 1: Late Bronze Age

The recorded Late Bronze Age remains are interpreted to constitute an occupation site, consisting of a small, post-built roundhouse and areas of pitting immediately outside the structure and further to its west. It is likely that the occupants were involved in agricultural activity, although no field boundaries of this date were identified.

Located in the centre of the site, within the east of Area 1, a sub-circular arrangement of eight, irregularly-spaced, post-holes defined a probable roundhouse structure measuring 6m by 5.4m (Fig. 3). The post-holes ([124, 141, 143, 149, 151, 153, 155 and 160]) were all oval or sub-circular in plan measuring 0.40–0.64m in length, 0.30–0.60m in width and generally 0.09–0.15m in depth, with the deepest post-hole ([143]) measuring 0.30m deep. Most were filled with a similar brown to dark greyish brown silty clay. Post-holes [141, 153 and 160] contained Late Bronze Age pottery, with [153] also containing one probable and one possible baked clay spindle whorl, both complete, as well as two amorphous baked clay fragments. A residual flint flake of undiagnostic prehistoric date was recovered from post-hole [160].

Two features were identified in the roundhouse interior. Located in the approximate centre of the roundhouse was sub-circular pit [126] that contained a single dark greyish brown silty clay fill from which Late Bronze Age pottery, charcoal, amorphous baked clay fragments and fire-cracked flint were recovered. Environmental analysis of a soil sample collected from this deposit established that the charcoal was derived from oak and field maple but found few macrobotanical remains, except for a single charred fruit, to be present. It is possible that this feature represents the remains of a central fire pit or hearth, although there was no evidence of direct heat to the sides and base of the pit to indicate *in situ* burning. At 0.45m deep, this central pit was more substantial than the surrounding structural post-holes and, instead, it may have originally housed a (roughly) central roof post. The second internal feature was small oval post-hole [157], adjacent to [155], that may have been associated with a west- or south-west-facing entranceway, not all of which has survived. However, the entrances to roundhouses, of both Bronze Age and Iron Age date, were more commonly situated to the east or south-east (*e.g.* Broomfield (Atkinson 1995), Little Waltham

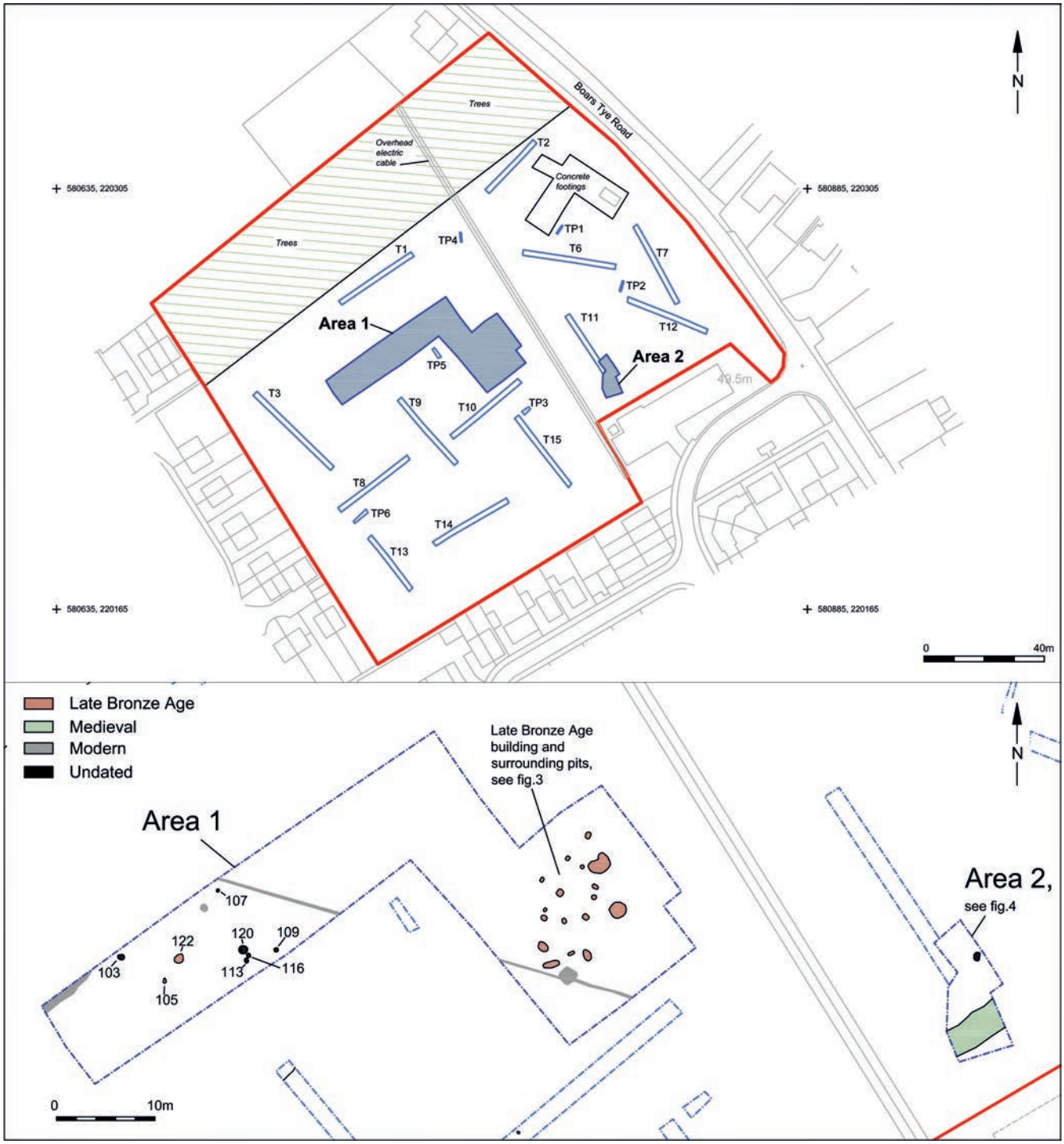

FIGURE 2: Site plan.

(Drury 1978), Lofts Farm (Brown 1988), Mucking North Ring (Bond 1988), South Hornchurch (Guttmann and Last 2000), Springfield Lyons (Brown and Medlycott 2013; Ennis 2017) and Stansted Airport (Cooke *et al*. 2008)). Given this, it is as likely that this post-hole represents the remains of an internal post, possibly inserted as a repair.

Situated around the outside of the roundhouse was a group of up to eight pits ([130, 144, 146, 159, 163, 165, 167 and 5/005]), measuring 0.58–1.7m in length and 0.12–0.44m in depth. The positioning of these pits to the north, south and east of the roundhouse may support the possibility of a west- or south-west- facing entranceway. Of these, only [130] and [5/005] contained Late Bronze Age pottery; although it is presumed that they all were contemporary and associated with the roundhouse. The largest, [130], measuring 1.7m long by 1.6m wide, was located *c.*1.8m south-east of the roundhouse and contained four fills (Fig. 3, Section 6). Recovered from this pit was the lower half of a fragmented and inverted Late Bronze Age vessel, a quantity of mixed broken sherds of similar date and a small amount of animal bone (>twelve fragments, 245g). The latter, forming the joint largest animal bone assemblage from the site, included a cattle humerus that showed characteristics of having been heated (presumably cooked), in addition to evidence of canid gnawing and erosion.

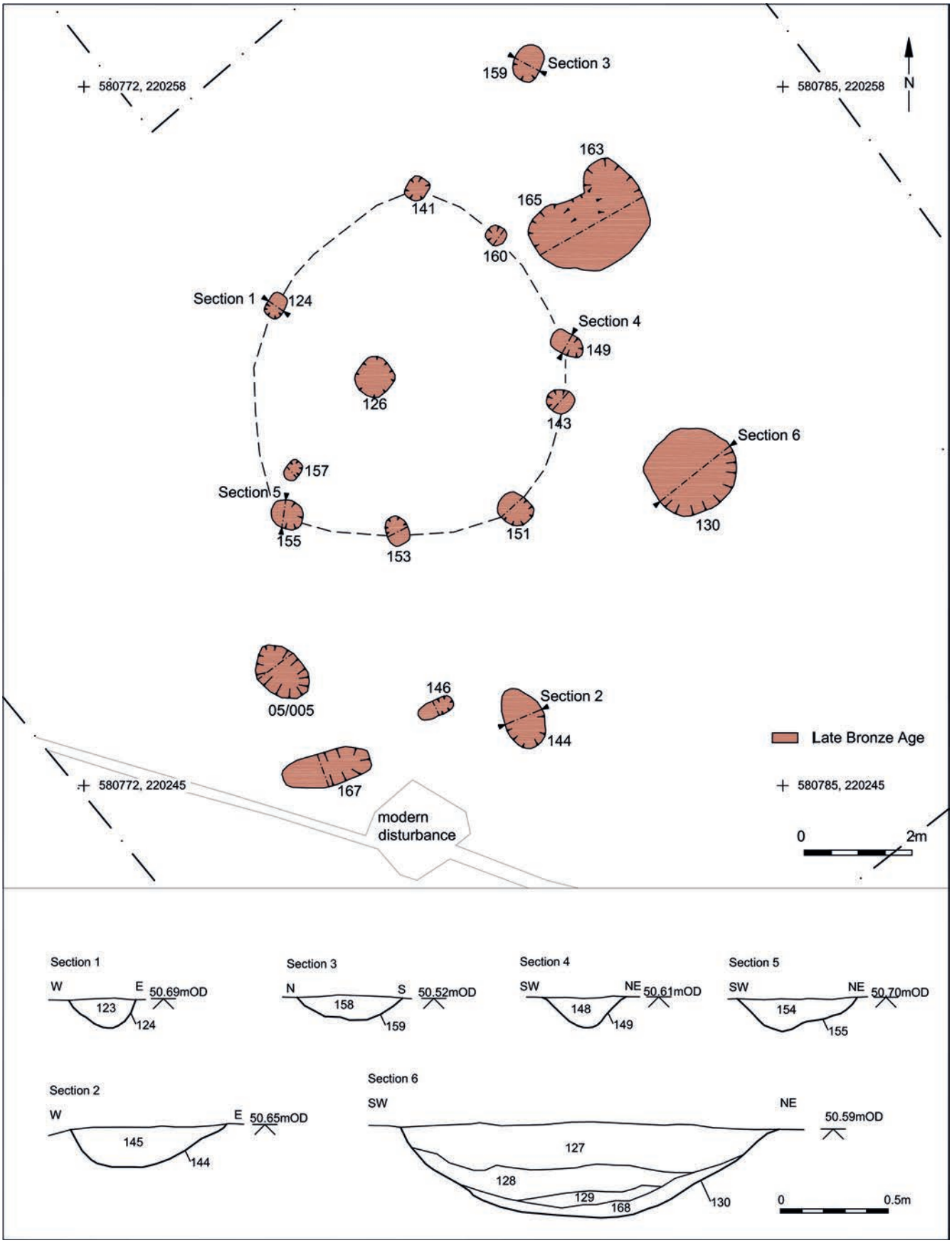

FIGURE 3: Late Bronze Age features

Environmental soil samples collected from this feature were dominated by the presence of oak charcoal; however, charred grains of wheat and barley, and knotgrass/dock seeds were also identified. It seems that this pit was used for the disposal of rubbish associated with the occupation of the roundhouse. The second pit to contain pottery, [5/005], was located *c*.2.2m south of the roundhouse and was originally investigated during the evaluation. This contained more than 200 sherds of Late Bronze Age pottery, with the majority deriving from a single large and partially-complete jar. A single platform flake core dating to the Neolithic or Early Bronze Age was most likely residual in pit [144] located to the south of the roundhouse. The lack of finds recovered from the remaining pits in the immediate vicinity of the roundhouse suggests that the purpose of these pits was not for rubbish disposal unless it was of a more organic/ecofactual nature.

Two further Late Bronze Age features were located in Area 1, towards the west of the site. Sub-circular pit [122 / 4/006], measuring 1.15m by 0.92m, was filled by a dark brown silty clay that contained a moderate assemblage of pottery, the joint largest assemblage of animal bones (twenty-nine fragments, 244g), which included cow and sheep/goat, and baked clay fragments, one of which bore a wattle impression, suggesting a structural origin. In addition, a fragmentary slab-like piece of sandstone that had likely been utilised as a whetstone was also retrieved from this fill. Situated *c*.2m to its south-west was sub-oval post-hole [105], 0.5m long by 0.3m wide, which contained a few small sherds of Late Bronze Age pottery.

A further six undated pits or possible post-holes ([103, 107, 109, 113, 116 and 120]) were located in this same western part of Area 1. The largest of these, [120], was sub-circular in plan, 0.9m in diameter, and contained three silty clay fills, one of which contained a single small piece of unidentified animal bone. Environmental analysis of a soil sample collected from this pit contained only a small amount of charcoal, poorly preserved plant remains of an indeterminate cereal caryopsis and infrequent fragments of unidentified burnt bone. The remaining pits were either oval or circular in plan and of similar size, ranging in length from 0.3m to 0.55m, though some were as little as 0.07m deep. Most contained reddish brown silty clay fills, with [116] containing an additional dark brownish grey upper fill. Circular pits [103] and [107] were filled only with greyish brown silty clay with charcoal flecks. Only fire-cracked flints were retrieved from the fill of pit [103]. Although undated, it is likely that at least some of these pits or post-holes were of prehistoric origin and presumably associated with the Late Bronze Age occupation activity.

The artefacts and ecofacts recovered from the roundhouse post-holes and, more significantly, from the external pits are indicative of the modest but typical domestic assemblages expected of Late Bronze Age rural settlements and provide some insight into the nature of the occupation. In particular, it is likely that the occupants of the roundhouse were involved in a mixed agricultural economy. Pastoral farming is suggested by the presence of cattle and sheep bones, as well as spindle whorls used in spinning wool, whilst arable farming, perhaps on a limited scale, is suggested by the presence of a few charred grains of wheat and hulled barley. The cereals may have been cultivated locally and the knotgrass/dock weed seeds may be associated with the crops or could have grown within, or around the settlement, as they are typical of disturbed waste ground. Canine gnaw marks on bone imply the presence of dogs and are not uncommon at occupation sites of this date. The presence of predominantly oak charcoal in several of the features is perhaps unsurprising as it was favoured for both fuel and timber (Edlin 1949; Taylor 1981).

No contemporary settlement enclosure or field boundaries were identified and it is concluded that these remains constitute a small, unenclosed farmstead located on a well-drained, gentle slope on the interfluve above the Rivers Brain and Blackwater. However, given the limited extent of the investigations, the possibility of there being field boundary ditches in the wider vicinity cannot be completely discounted. It is not unknown for Late Bronze Age field systems to be located away from settlement sites; notably, this was the case at Springfield Lyons, Chelmsford, where field boundary ditches were recorded *c*.36m and *c*.76m west of the main settlement enclosure (Ennis 2017, 9).

Period 2: Medieval (Fig. 4)

Evidence of medieval agricultural land use was restricted to the remains of a large 13th-century ditch that appeared to define the boundary between two fields. The ditch ([131]), located towards the east of the site, was initially recorded in evaluation Trench 11 as [11/006] and was tentatively interpreted as being part of a large quarry pit. The subsequent excavation of Area 2, however, established that the feature was in fact part of a large ditch.

Ditch [131] was positioned on a north-west to south-east alignment, perpendicular to Boars Tye Road, which may itself have medieval origins. It was exposed in plan for just over 5m and measured 3.1m wide and 1.18m deep. The ditch contained a sequence of six fills (Fig. 4, Section 7). The lower three fills largely consisted of silty brown clay that may have been formed by the weathering and perhaps partial collapse of the sides. A few charcoal flecks and small fragments of oyster shell were present within these deposits, but no datable finds were recovered. The upper three fills all consisted of mid to dark brown to greyish brown silty clays with varying amounts of chalk and flecks of charcoal. Environmental analysis of a soil sample collected from this feature identified abundant charred grains of bread-type wheat and barley along with a smaller quantity of beans, indicative of a mixed agricultural economy. It is likely that these plant remains constitute domestic waste discarded within this ditch feature. A relatively large quantity of medieval pottery, together with fragments of featureless baked clay, animal bone, oyster shell and a single piece of iron slag, was retrieved from the upper fills of this ditch. The pottery spans the 12th to mid 13th-centuries and appears to be typical of a domestic assemblage of this date, comprising a small amount of fineware and a larger amount of coarseware, including the remains of a cooking pot. A wattle impression on one of the burnt clay fragments retrieved perhaps indicates that this material had a structural origin; however, as is often the case with assemblages of this date, fragments of roof tile were entirely absent.

The further extents of the medieval ditch were not established beyond the confines of excavation Area 2. This feature was not identified in evaluation Trench 15 to the south-west or in Trench 12 to the north-east. It is possible that the ditch turned to the south-east in the intervening area and perhaps may have bordered an area of medieval roadside

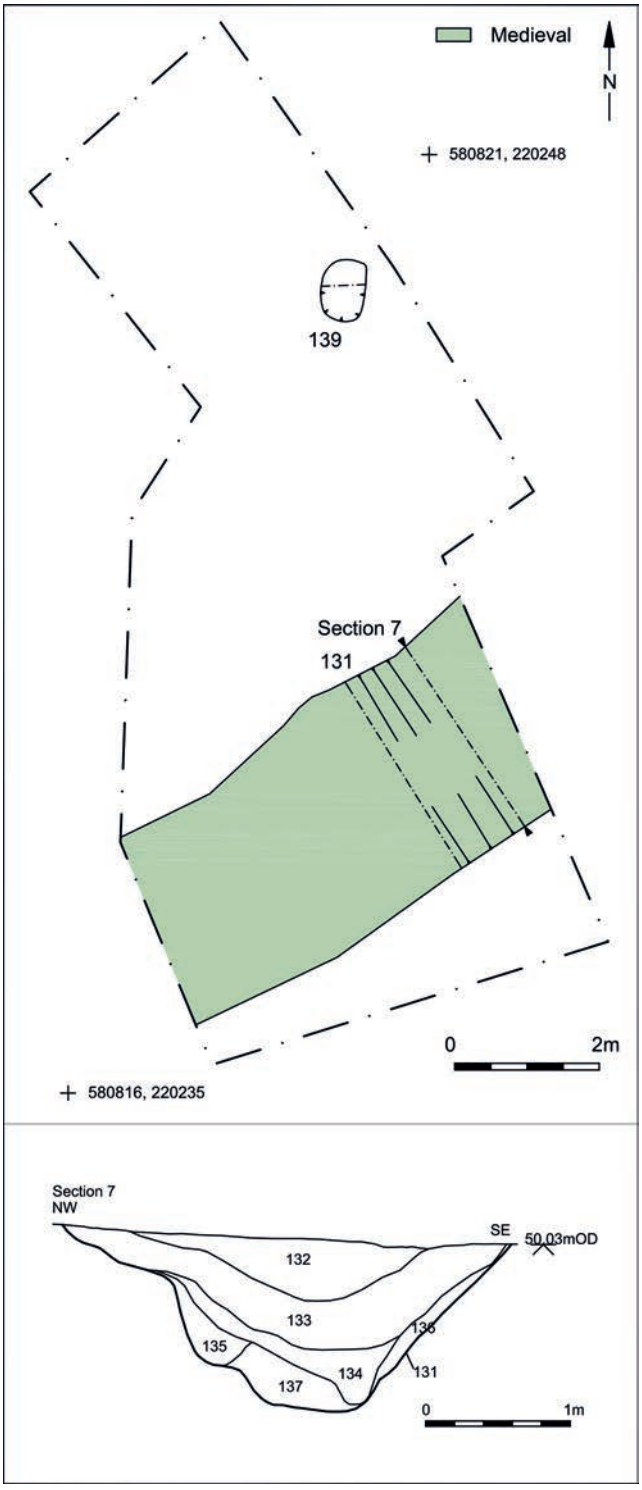

FIGURE 4: Medieval ditch [131]

settlement activity, possibly a precursor of the nearby Boars Tye Farm.

FINDS AND ENVIRONMENTAL REMAINS

A range of finds were retrieved from investigated features, including pottery, worked and burnt flints, fired clay, utilised stone, slag, animal bone and shell. Other than prehistoric and medieval pottery (reported below), these assemblages were of very small quantity and limited range. The results of these minor assemblages have generally been integrated into the preceding site narrative text; the one exception being the two Late Bronze Age fired clay spindle whorls that have greater intrinsic interest. The results of environmental analyses of bulk soil samples collected from selected features have also been integrated into the site narrative description. Full specialist reports on all finds and environmental assemblages were prepared for the grey literature report (ASE 2017c) and are included in the site archive.

Prehistoric Pottery by Anna Doherty

The assemblage of Late Bronze Age pottery from the site is only of moderate size (594 sherds, weighing 8.17 kg) and was almost entirely recovered from a relatively small number of pits. These were mostly located in the immediate vicinity of the roundhouse structure with a small amount of contemporary pottery found also within the post-holes of the building itself. One of the pits, [5/005], included a highly-fragmented, but near-complete, vessel (Fig. 5.1).

This material was dominated by coarse and moderately coarse flint-tempered fabrics (with most inclusions up to *c*.2.5mm and 4mm respectively). Flint-and-grog-tempered fabrics and flint-tempered fine wares also made up a minor element of the assemblage. Only a small range of diagnostic forms was present, including two weakly shouldered jar forms (Figs 5.1 and 5.2), a hook rim jar (Fig. 5.3) and a bowl with a weakly bi-partite profile (Fig. 5.4). Taken together with the relative coarseness of fabrics, the range of forms clearly belong to the plain ware post-Deverel-Rimbury tradition (dated *c*.1150–800 BC) and, more likely, its earlier undeveloped phase. Having said this, the presence of fingertip decoration on vessel 1 could be more suggestive of a date into the earlier 1st millennium BC.

Prehistoric pottery illustration catalogue (Fig. 5):

1. Weakly shouldered jar with finger impressions on rim and combed exterior surfaces in coarse flint-tempered ware. Fill [5/004], pit [5/005]
2. Weakly shouldered jar in coarse flint-tempered ware. Fill [4/005], pit [4/006]
3. Hook rim jar in coarse flint-tempered. Fill [169], pit [130]
4. Bowl with weakly bipartite profile in fairly fine flint-and-grog-tempered ware. Fill [4/005], pit [4/006]

Fired Clay spindle whorls by Trista Clifford

Two fired clay objects were recovered from fill [154] of post-hole [155], a component of the Late Bronze Age roundhouse. Probable biconvex spindle whorl RF<1> (Fig. 6.1) is decorated with two rows of pinprick impressions extending in a spiral from the aperture around the slightly flattened apex. Another spiral of three rows of pinprick impressions has been applied around the equator of the object forming a band of decoration. Between these two decorative features is a circle of impressed dots *c*.2mm in diameter. Two rows of these larger dots also encircle the opposite aperture.

The second object, RF<2> (Fig. 6.2), is a possible spindle whorl, although it may have been utilised as a bead. Its short cylindrical body is decorated with vertical fluting forming eleven points around the circumference when viewed in plan. The 2.5mm diameter perforation aperture would seem too small for the object to have been utilised as a spindle whorl. As a comparison, the smallest perforations on spindle whorls from Danebury were 4mm in diameter (Poole 1991).

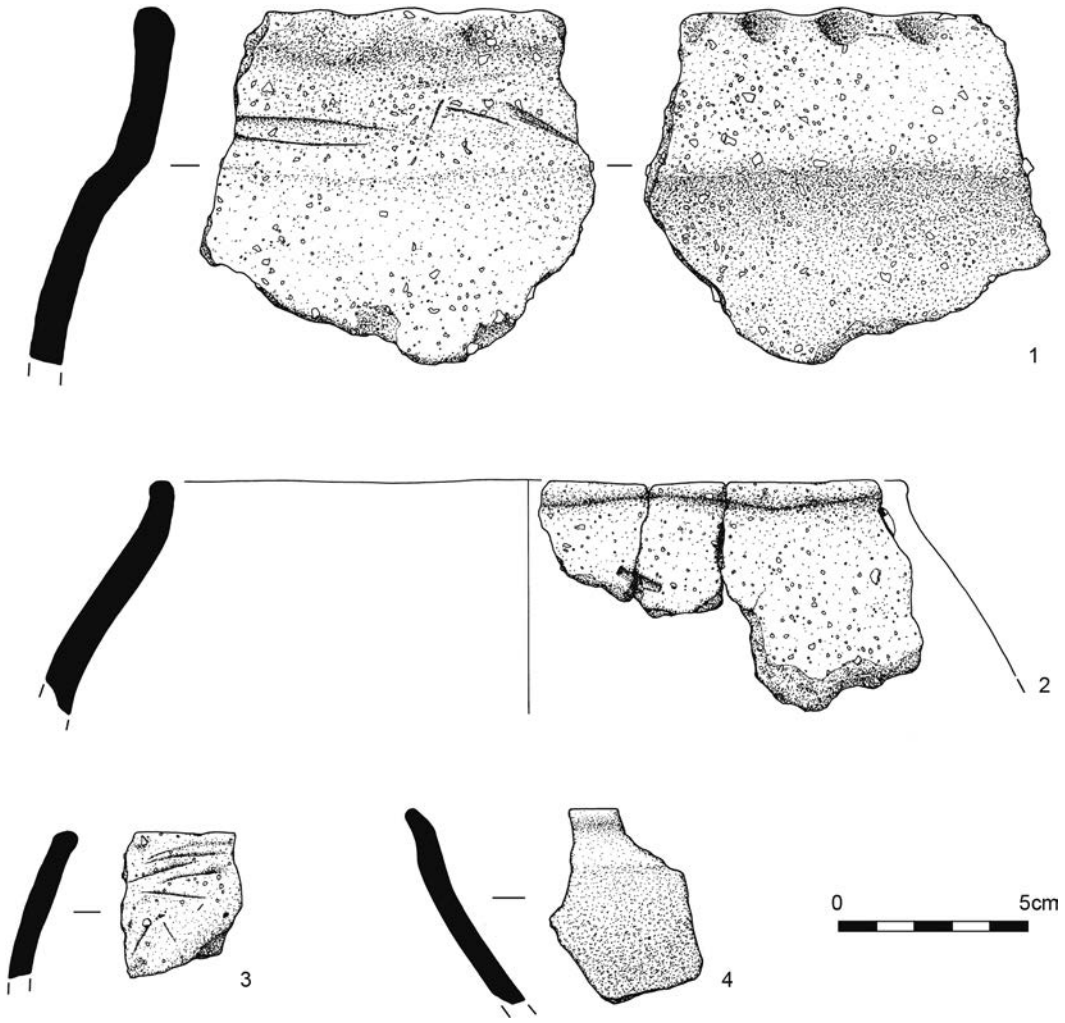

FIGURE 5: Late Bronze Age pottery

A number of prehistoric decorated spindle whorls have been recorded elsewhere. A spindle whorl decorated with pinprick decoration came from the General Post Office site in the City of London and another with pinprick dots within scratched linear panels from the foreshore at Westminster (Thomas *et al.* 2006, 31). The dating of these finds is somewhat ambiguous, although an Iron Age date is suggested by comparison to another example from Danebury (Poole 1991, fig. 7.42, no. 7.85). Earlier, Bronze Age, examples tend towards fingernail impressed decoration, as with examples from Springfield Lyons (Major 2013, 124), Stansted Airport (Major 2004, 54), Peacehaven, East Sussex (Raemen 2015, 240), and Runnymede, Surrey (Needham and Spence 1996, fig. 99 C35), although a Bronze Age 'bead' from Ravonstondale, Cumbria, also exhibits impressed dot decoration (Kinnes and Longworth 1985, pl.177) and a Late Bronze Age spindle whorl from Hornchurch has a single ring of pinprick dots around the upper aperture (Harrison 2000, 343).

No directly comparable examples of beads or spindle whorls with fluted sides such as RF<2> have been identified. However, Late Bronze Age/earliest Iron Age features at Minster, Kent, produced two spindle whorls with smaller indentations creating a crenelated appearance around the circumference (Cotton 2010/11, 22) and a spindle whorl fragment decorated with finger impressions was recovered from the Late Bronze Age enclosure ditch at Springfield Lyons (Major 2013, 124). The objects are therefore not inconsistent with the Late Bronze Age date of the occupation phase.

Fired clay spindle whorl illustration catalogue (Fig. 6)

1. Probable spindle whorl of biconvex form, made in a well-fired sandy fabric. 30.7mm diameter, 16.5mm height, 14.7g weight. Pierced vertically, aperture 5.2mm diameter increasing to 7mm at the other side. Decorated with rows of pinpricks and circles of impressed dots. RF<1>, fill [154], posthole [155], Period 1
2. Possible spindle whorl, although it may have been utilised as a bead, in similar fabric to RF<1>. Short cylinder in shape. 36.5mm diameter, 17.8mm height, 21.7g weight. Perforation aperture only 2.5mm diameter, seemingly too small for the object to have been utilised as a spindle whorl. Decorated with vertical fluting. RF<2>, fill [154], posthole [155], Period 1

Medieval Pottery by Helen Walker

A small amount of pottery, totalling fifty-seven sherds weighing 498g, was collected from three fills within ditch [131] in Area 2 and has been catalogued according to Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1–16; expanded by Drury *et al*. 1993 and Cotter 2000). Some of Cunningham's rim codes are quoted in this report. The pottery is quantified by ware in Table 1.

FIGURE 6: Late Bronze Age fired clay spindle whorls

Pottery by ware	Sherd count	Weight (g)
Shell-and-sand-tempered ware	10	92
Early medieval ware	5	22
Hedingham fineware	9	89
Hedingham coarseware	4	43
Medieval coarseware	29	252
Total	57	498

TABLE 1: Medieval pottery quantification

Middle fill [134] produced only undiagnostic sherds of shell-and-sand-tempered ware and medieval coarseware; some of the latter are borderline early medieval ware providing a likely 12th- to earlier 13th-century date for this deposit. Upper fills [133] and [11/004] produced larger assemblages, with finewares comprising sherds from Hedingham Ware jugs. These include an abraded B2 rim showing a carination below the rim, beneath which are traces of red and white slip bands. The sherd is too fragmented to assign a decorative style but may be an example of Rouen-style decoration datable to *c*.1200–1250 (Cotter 2000, 91, fig. 50.14). Also present is a twisted rod jug handle showing a mottled-green glaze. Whilst this type of handle is sometimes found on Rouen-style jugs, it is far more common on stamped strip jugs (Cotter 2000, 81, fig. 50.17). Stamped strip jugs are the most long-lived style of Hedingham fineware jug and were produced from *c*.1225 to *c*.1300/1325 (Cotter 2000, 91).

Coarsewares in the upper fills comprise further sherds of shell-and-sand-tempered ware similar to those in the earlier fill, early medieval ware, including an example decorated with a thumbed applied strip, and examples of Hedingham coarseware and medieval coarseware. Diagnostic sherds of medieval coarseware comprise a thickened everted rim and a beaded rim, the latter most likely from a cooking pot. These rim forms usually occur in early medieval ware and their occurrence in medieval coarseware suggests a date of late 12th to earlier 13th century. Also present is a fragment from a large, wide medieval coarseware bowl showing rounded sides and a curved over or cavetto rim — a rim type datable to the first half of the 13th century. No fire-blackening or other traces of use can be seen on the bowl. Finds in Hedingham coarseware comprise an H2 cooking pot rim datable to the early to mid-13th century. This rim, together with the Hedingham fineware twisted rod jug handle, provides a probable date of the second quarter of the 13th century, or later, for deposition of this group.

The pottery from ditch [131] spans the 12th to mid-13th centuries and appears to be a typical domestic assemblage comprising a small amount of fineware and a larger amount of coarseware pottery, including the remains of at least one cooking pot, always the commonest medieval vessel form. The presence of Hedingham fine- and coarsewares is to be expected, as Hedingham Ware was manufactured in and around the settlements of Sible Hedingham and Halstead in north central-Essex, the nearest known production site to Boars Tye Road being 'Attwoods', some 10km to the north (Walker 2012, fig. 12).

The assemblage is too small to be of significance other than to say that it is typical of northern Essex. However, one aspect worth further mention is the preponderance of shell-and-sand-tempered ware over the contemporary early medieval ware (which is tempered with sand only). It has been noted previously by Cotter (2000, 36–7) that in north Essex early medieval ware usually predominates, but in the south of

the county the reverse is true and shelly wares predominate. Cotter has demonstrated that the Brain Valley appears to represent a pocket in the northern half of Essex where shelly wares predominate. Cotter lists the following sites where this is the case: Cressing Temple (Cotter unpublished), Blunt's Hall, Witham (Trump 1961), and Rivenhall Churchyard, just outside the Brain Valley (Drury *et al*. 1993). To this list can be added a recently excavated assemblage in the village of Cressing (Walker 2017).

DISCUSSION

The archaeological investigations undertaken at this development site west of Boars Tye Road, although limited to a relatively small area, have brought to light a previously unknown Late Bronze Age occupation site—the first of its kind found in this vicinity of the Brain Valley. Indeed, examples of excavated roundhouses of this date are few in number in Essex and this site is a significant addition to the corpus of information. Comparison with other sites of a similar nature allows for a better understanding of their wider contexts. Although the medieval remains are limited to a single ditch, consideration of the substantial evidence, both archaeological and historical, for the wider medieval landscape provides further insight into the nature of land use at this time.

Late Bronze Age

The Late Bronze Age remains at Boars Tye Road provide evidence for a small occupation site, presumably a simple unenclosed farmstead, or even just an isolated dwelling, likely inhabited by a single family unit. In contrast to other Late Bronze Age roundhouses (*cf.* Broomfield (Atkinson 1995), Little Waltham (Drury 1978), Lofts Farm (Brown 1988), Mucking North Ring (Bond 1988), South Hornchurch (Guttmann and Last 2000), Springfield Lyons (Brown and Medlycott 2013; Ennis 2019) and Stansted Airport (Cooke *et al*. 2008)), the Boars Tye Road example may have had a west- or south-west-facing entranceway, as evidenced by the pits located outside to the north, south and east, and an internal post-hole situated to the south-west. The apparent small scale of the site, the absence of any associated known burial sites in the surrounding landscape and the lack of evidence for repair of the roundhouse structure suggests that the settlement was in use for a limited period. It has been estimated that timber structures with posts set in the ground had lifespans of 25–30 years or about one generation (Drury 1978, 126). It is possible that the occupants moved to a new site once the roundhouse had reached the end of its usable life and, certainly, there is no evidence for its concerted replacement or for any continuation of activity into the Early Iron Age.

It is noteworthy that very limited evidence of pre-Iron Age settlement or land use has been encountered within the wider vicinity of this site, although the rivers, streams and brooks that form part of the Brain and Blackwater valleys would have acted as important communication routes in the Bronze Age (Yates 2012, 31). The incidence of Bronze Age metalwork hoards, such as that recorded in the Blackwater Valley *c*.4km north of Boars Tye Road (Brown 1999), and scattered metal-detected finds in the wider landscape of the Rivers Brain and Blackwater, however, provide indirect evidence for the widespread occupation of the Brain and Blackwater Valleys during the Bronze Age. The only other significant evidence of probable Bronze Age settlement known within this area is that uncovered during recent excavations at Bradwell Quarry, located *c*.2.2km north-east of the Boars Tye Road site. Here, a 10m diameter roundhouse of Middle to Late Bronze Age date was defined by a ring-ditch with two entrance gaps, perhaps constituting an eaves drip around the structure (ASE 2017b, 9). Structural features in its interior were limited to two post-holes located near the south-east entrance. Features external to the ring-ditch included a gully, various clusters of pits and post-holes, some intercutting, and three cremation burials. The presence of the burials, however, has prompted speculation that the ring-ditch may instead have been a ploughed-out barrow (ASE 2017b, 35).

Within the wider River Blackwater and River Chelmer regions, concentrations of metalwork finds have also been recorded, providing further evidence for Late Bronze Age occupation in central Essex and demonstrating the widespread distribution of Bronze Age occupation between the Thames Estuary and East Anglia (Buckley *et al*. 1986; Adkins and Adkins 1987; Brown 1988, 295; Brown 1996, 30; Brown 1998, 16). A number of Late Bronze Age settlements are known in the mid-Chelmer valley; however, only a small number of these comprised unenclosed buildings similar to that at Boars Tye Road. A small roundhouse has been recorded outside the Late Bronze Age enclosed settlement at Springfield Lyons (Ennis 2017, 9–10). It was formed of nine post-holes in a single ring, measuring *c*.5m by 6m, with a south-facing porch and three internal stake-holes. A domestic function for this structure has been inferred from the presence of a large quantity of Late Bronze Age pottery (Ennis 2017, 38).

Further afield, the Late Bronze Age settlement at the Stansted Airport Long Term Car Park site comprised two, unenclosed roundhouses and a scatter of pits, post-holes and other features (Cooke *et al*. 2008, 66–7). Similar to the structure at Boars Tye Road, these two roundhouses were of post-built construction, although they were larger in size: circular Roundhouse 12 was *c*.10.5m in diameter and sub-oval Roundhouse 13 measured 8m by 7.4m. Whilst little dating evidence was recovered from the roundhouses, the scatter of Late Bronze Age features associated with them suggest that they were contemporary (Cooke *et al*. 2008, 67).

The extensive Late Bronze Age settlement at South Hornchurch comprised three phases of occupation consisting of clusters of both enclosed and unenclosed roundhouses, as well as a circular ditched enclosure with contemporary field system (Guttmann and Last 2000). Unlike at Boars Tye Road, these roundhouses were evidently repaired, which would have extended their lifespan (Guttmann and Last 2000, 349). It has been estimated that the settlement was occupied for 100–200 years around the 9th and 8th centuries BC (Guttmann and Last 2000, 349).

Within Essex, particularly the River Chelmer and River Blackwater regions, Late Bronze Age roundhouses have been found more commonly within substantial enclosure settings; for example at Lofts Farm on the Blackwater estuary (Brown 1988), Springfield Lyons, Chelmsford (Brown and Medlycott 2013), Broomfield (Atkinson 1995), Frog Hall Farm, Fingringhoe (Brooks 2001) and Mucking North Ring (Bond 1988). The single roundhouse at Lofts Farm comprised nineteen post-holes forming an oval ring, 11m by 10m, with an indication of a south-facing porch (Brown 1988, 257).

Two of the four occupying structures in the Springfield Lyons enclosure are comparable to Boars Tye Road, Roundhouses B and C both being circular to sub-oval in plan and formed of single rings of nine and thirteen post-holes, respectively, measuring *c*.5–6m in diameter (Brown and Medlycott 2013, 34). The single roundhouse structure at Broomfield was defined by a ring (*c*.8m diameter) of fifteen post-holes, three gullies and an area of disturbed natural (Atkinson 1995, 6). The Frog Hall Farm, Fingringhoe roundhouse was formed of approximately seven post-holes in a single ring, measuring 4.8m by 6.4m, and was located within an enclosing ring-ditch (Brooks 2001, 4). Lastly, the three roundhouses at Mucking North Ring were all similar to Boars Tye Road, all being of post-built construction, comprising single rings of between five and eleven extant post-holes, measuring 5–5.5m in diameter (Bond 1988, 11–12). Unlike the Boars Tye Road example, however, two of these roundhouses contained post-holes indicative of internal partitions (Bond 1988, 11–12).

In addition to the construction of the Boars Tye Road roundhouse being comparable to the above examples elsewhere within the county, both the presence and artefact/environmental content of the associated pits appear to be similarly comparable. At Boars Tye Road, the assemblage of Late Bronze Age pottery, worked and burnt flint, fired clay, utilised stone, animal bone, charred plant remains and spindle whorls are indicative of domestic occupation and a mixed agricultural economy with a focus on pastoral farming and can perhaps be considered typical of Late Bronze Age settlements when compared to other sites in the region.

Similar to Boars Tye Road, the range of artefacts encountered at Lofts Farm, including pottery, burnt flint, spindle whorls and limited charred plant remains, is thought to suggest that a wide variety of domestic and mixed agricultural, albeit largely pastoral, activities took place at the site (Brown 1988, 294–6). The material recovered from the excavation at Frog Hall Farm, Fingringhoe, notably the pottery assemblage, is indicative of the domestic nature of the site, in particular cooking and eating activities (Brooks 2001, 18). The assemblage of material evidence retrieved from the Broomfield site is largely indicative of domestic activity, with spindle whorl, loomweight and quern stone fragments providing limited evidence of manufacturing and cereal processing activities. This evidence has been interpreted as being indicative of the independence of this settlement within the Chelmer Valley (Atkinson 1995, 22). Similarly, the pastoral element of the economy of the Mucking North Ring site is considered to have been predominant as indicated by the presence of animal bones, spindle whorls, loomweights and flint scrapers, although limited evidence of crop processing and other associated finds, notably saddle querns, was identified (Bond 1988, 52). Together, the artefact/environmental material from Boars Tye Road and the comparable sites discussed demonstrate both the domestic and agricultural nature of Late Bronze Age settlements across the landscape. The evidence suggests that the agricultural economies of these sites were largely dominated by pastoral activities; however, the presence of quern stones and charred plant remains, although in small quantities, indicates that at least small-scale cultivation and crop processing activities also took place.

Medieval

No evidence for Iron Age, Roman or Saxon occupation was encountered at the Boars Tye Road site, which is in contrast to other investigated sites within its surroundings, such as Rivenhall, Cressing Churchyard and Dovehouse Field at Cressing Temple (Rodwell and Rodwell 1986; Hope 2004; Atkinson and Ennis in prep.). Subsequent to the Late Bronze Age settlement, demonstrable land use is limited to a large field boundary ditch dating to the 12th to 13th century.

During the medieval period, the vicinity of Boars Tye Road belonged to the parishes of Cressing and Rivenhall. Within the parish of Rivenhall, it is thought that there were areas of unassigned land in the 11th century potentially indicative of medieval waste, which may have included the land associated with Boars Tye Green, situated *c*.4.4km south of the development site (Rodwell and Rodwell 1986, 178). In the south of Cressing parish, the medieval landscape was dominated by Cressing Temple and its environs (Hunter 1993). Situated less than 2km south-west of Boars Tyre Road, archaeological and historical study of medieval land use at Cressing Temple, including the extent of woodland and the nature of fields and crofts, demonstrates the reclamation of woodland and the laying out of fields that correspond with former, Roman or possibly earlier, trackways and boundaries (Hunter 1993, 35). The Dovehouse Field excavations demonstrated that the area was most likely under cultivation throughout the medieval and post-medieval periods and is presumed to have been closely associated with the medieval Cressing Temple farm estate (ASE 2014, 5, 10; Atkinson and Ennis in prep.). The Boars Tye Road site lies just north-east of what was Temple demesne land, which was divided into large agricultural fields and largely devoid of dwellings pre-dating 1500 (Hunter 1993, 34).

In contrast, the pre-modern landscape to the east of the site, as extensively investigated within Bradwell Quarry, is suggested to have been a largely 12th-century and later construct and that its early development perhaps took place under the patronage of the lord of the manor at Bradwell Hall (ASE 2017a, 60). Within the quarry, the remains of at least three medieval farmsteads have been excavated together with the site of a 12th-century farm and hall immediately north of Sheepcotes Farm and may constitute its precursor; Sheepcotes is documented to have been in existence since the 12th century (ASE 2017a, 60). These perhaps suggest that the landscape outside the Cressing Temple estate was scattered with relatively small and closely-spaced farms.

Whilst the Boars Tye Road ditch provides an indication of the rural/agricultural nature of land use during the medieval period, it is perhaps more significant for the domestic assemblage of medieval finds it contained. The retrieved finds, dominated by both fine and coarseware pottery but also featuring likely food waste in the form of animal bone, oyster shell and charred wheat, barley and bean remains, suggest the proximity of a household. It is speculated that the ditch continued north-east toward Boars Tye Road, with which it was perpendicular, perhaps to a farmstead located on or toward the thoroughfare, though evidently beyond the investigated site.

CONCLUSION

The Boars Tye Road investigations provide small-scale but important insight into Late Bronze Age settlement and land use in the Brain Valley. It is evident that the occupation activity

denoted by the roundhouse and associated pit remains is typical of Late Bronze Age settlements in Essex, demonstrating a mixed agricultural subsistence economy and a likely high degree of self-sufficiency, albeit on a small scale and most likely for a relatively short span of time—probably no more than a single generation. The site also provides evidence, although slight, of the agricultural nature of land use during the medieval period, the substantial single ditch remains presumably constituting a field boundary. This corresponds with current understanding of the wider landscape at this time, which was dominated by large agricultural fields, as well as areas of woodland and, on the evidence of the ongoing adjacent Bradwell Quarry investigations, punctuated by farmsteads of varying size and status. Indeed, the domestic nature of the medieval ditch contents may hint at the presence of the remains of another such farmstead in the immediate vicinity of the Boars Tye Road site.

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A 1st-century agricultural settlement in north-west Essex: excavations at Sampford Road, Thaxted

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With contributions by Trista Clifford, Anna Doherty, Hayley Forsyth-Magee, Susan Pringle, Elke Raemen, Mariangela Vitolo and Helen Walker

Archaeological excavation to the north-east of Thaxted has provided evidence of extensive 1st-century AD occupation and agricultural land use, complementing and enhancing discoveries on the adjacent Bellrope Meadow development in 2007. Successive phases of Late Iron Age and Early Roman settlement, probably a farmstead, were recorded together with parts of their field systems. This occupation and land use were seemingly short-lived, either being abandoned or shifted elsewhere in the near vicinity by the 2nd century AD. The site sequence is described and its nature and wider significance considered in relation to the known Roman landscape and more recent archaeological discoveries.

INTRODUCTION

Project background

Archaeological investigations within 5.2ha of former agricultural land on the north-east periphery of the town of Thaxted in north-west Essex were undertaken in advance of its residential development (Fig. 1; NGR: TL 61290 31690). An evaluation, comprising the excavation of forty-eight trenches, was carried out in 2013, identifying substantial archaeological remains in two locations on the site which were to be impacted by the development. Consequently, two mitigation areas were subject to full excavation; a *c*.0.4ha area towards the north (Area 1) and a *c*.0.65ha area to the south (Area 2, Plate 1). A further 0.32ha area containing significant remains, identified during the evaluation trenching, was preserved *in situ* beneath amenity grassland within the development to the north-east of Area 1, close to Sampford Road (Fig. 2).

Topography and Geology

The site is bounded to the north by Sampford Road (B1051) and to the west by a recent residential development at Bellrope Meadow. Situated in arable farmland, the north end of the site lies at *c*.103m OD and the topography slopes down gently from north-east to south-west.

According to the British Geological Survey (BGS 2018), the bedrock geology of the site comprises Thanet Sand Formation and Lambeth Group (undifferentiated) clay, silt and sand, which is in turn overlain by the glacial tills of the Lowestoft Formation diamicton. The latter was observed on site as a variable deposit ranging from a mid orange/brown to a lighter yellow/brown colour, and consists of silty clay, which contains frequent inclusions of flint pebbles and manganese. Belemnites also occur within the natural deposits. Excavation revealed a typical sequence of 0.25m–0.30m of agricultural topsoil and varying thicknesses of subsoil up to 0.20m overlying the natural drift deposits.

Archaeological and Historical Background

Little evidence for prehistoric activity has been recorded in the immediate vicinity of Thaxted, although in recent times more discoveries have been made to its north. A Neolithic polished axe was found just south of the town, a scatter of prehistoric finds were retrieved at Goddard's Farm to north of the town (Ecclestone and Medlycott 1993, 201) and a Late Bronze Age to Early Iron Age ditch was discovered in the town close to Thaxted Windmill (Rozwadowski 2008). Probable Bronze Age pottery, residual in later features, was found at Wedow

Plate 1: Photograph of the northern end of Area 2, looking north. The housing to the left is built over the Bellrope Meadow excavation.

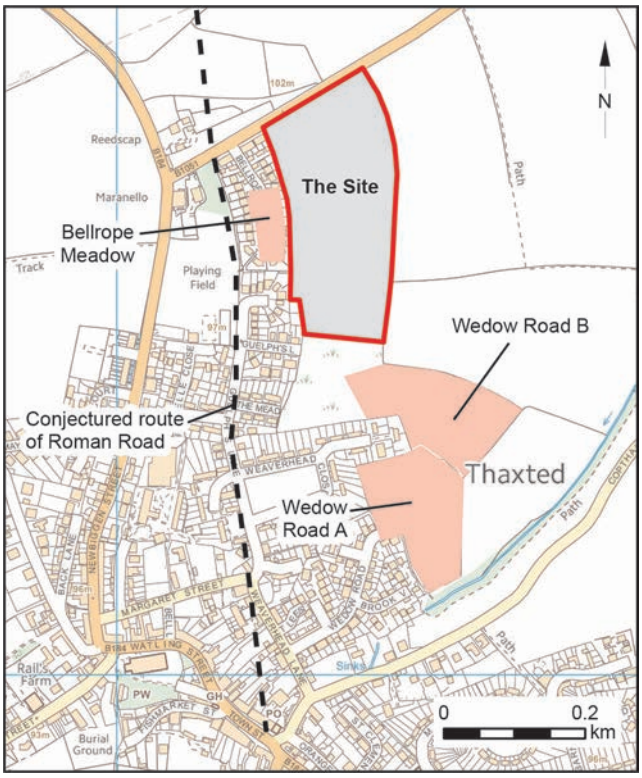

FIGURE 1: Site location in relation to Thaxted.

Road A, 200m to the south of the Sampford Road site, while excavations at Bellrope Meadow, immediately to the west of the site (Fig. 2), uncovered Late Iron Age ditches including a possible enclosure (Oxford Archaeology 2008; Stansbie *et al.* 2009). Occupation at this site persisted into the Romano-British period and included a ditched enclosure and a small cemetery dating from the mid-1st to mid-3rd centuries AD containing six cremation and five inhumation burials. The presence of the cemetery suggested that there was a settlement in the immediate vicinity of the site, perhaps located in relation to a Roman road to the west, the course of which runs north to south through Thaxted en route from Dunmow to Radwinter (Fig. 1). Further investigation at Wedow Road B revealed a possible Middle Iron Age ditch and a Late Iron Age enclosure occupied by a roundhouse from the 1st century BC (Oxford Archaeology East 2014; Webster 2016). The enclosure was redefined in the Early Roman period. Other evidence for the Roman period in the area is sparse, mainly consisting of a few surface finds including coins, pottery, building materials and occasional personal objects such as an earring (VCH 1963, 187). The existence of a villa somewhere to the north of Thaxted has been previously speculated (Rodwell 1978, 31).

The Wedow Road B excavation also uncovered evidence for three rectangular post-built buildings which were undated but ascribed to the Saxon or medieval periods on morphological grounds (Webster 2016, 23–24).

Thaxted is recorded in Domesday, the entry describing a well-established and thriving community present by the end of the Saxon period (Rumble 1983, 23.2). The church is mentioned in documents from AD 981. The prosperity of the town continued into the medieval period and it was granted a market in 1205. By the 14th century it was the centre of a large cutlery industry; remains of this industry have been found during investigations at several locations within the town (Andrews 1989; Medlycott 1996; Pooley 2016). A number of manors were present in the area including Thaxted Manor itself, located within the town. The church was rebuilt in the 14th and 15th centuries from the prosperity generated by the cutlery industry. At Bellrope Meadow, medieval pottery was recovered from linear boundaries predating the post-medieval land enclosure, perhaps indicating outlying settlement to the town in the area of Sampford Road, while a ditch containing late medieval building materials suggests that a building of this date previously stood in the vicinity (Oxford Archaeology 2008, 6). Remains of late medieval ridge and furrow, on a north-west/south-east alignment, were reportedly encountered at Wedow Road B (Webster 2016, 24).

The cutlery industry declined and was extinct by the 16th century. This led to a degree of poverty and a charter of 1556 granted Thaxted full borough status in an attempt to reverse the trend. Weaving became the major source of wealth in the town with a Guild of Clothiers established in 1583 (Medlycott 1996). Thaxted remained much the same in size and layout from this period onwards. The Manor was demolished in the 18th century and a number of windmills were built in the area, one of which still survives close to the church. The mill-mound of another until recently survived *c.*120m west of the site, at the junction of Sampford Road with Walden Road (Snee 2012). Historic mapping shows the Sampford Road site to have consisted of agricultural fields in the 19th and 20th centuries, with post-medieval boundary ditches being found at Bellrope Gardens and Wedow Road A and quarrying at Wedow Road B (Stansbie *et al.* 2009; Archaeological Solutions 2012; Webster 2016).

THE EXCAVATION

The investigation of Areas 1 and 2 revealed a multi-phase intercut complex of ditches, gullies, pits and post-holes in both areas (Fig. 2). The majority of the remains were encountered immediately below the ploughsoil and had evidently been truncated by modern cultivation activity. A thin subsoil was present in some parts of the site, particularly on the west side of the north arm in Area 2, where it covered the archaeological features. All of the recorded archaeological features were cut into the underlying natural deposits.

The recorded remains define six broad periods of land use, based upon their finds chronology, mainly derived from pottery, and stratigraphic relationships. These comprise:

Period 1: Middle Iron Age (400–100 BC)
Period 2: Late Iron Age (100 BC–AD 50)
Period 3: Early Roman (AD 50–100)
Period 4: Later Roman (AD 100–400)
Period 5: Medieval (AD 400–1500)
Period 6: Post-medieval (1500–present)

Approximately three-quarters of the recorded contexts are dated to Period 3, one of seemingly intense land use activity over a relatively short space of time from *c.*AD 50 to 100. This Early Roman period is subdivided into two broad phases (3a and b) which define the changing land uses during the second half of the 1st century and which can only be separated

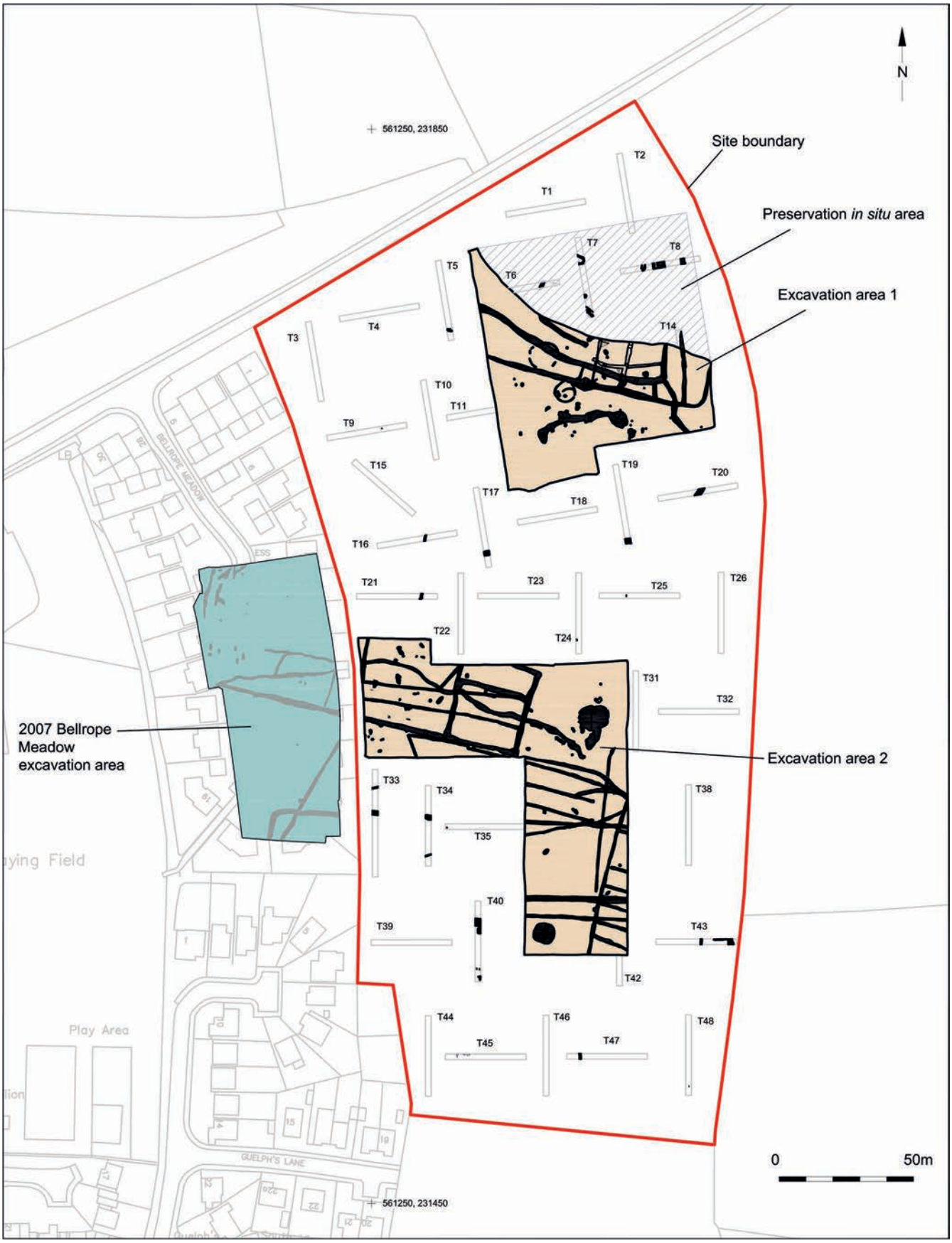

FIGURE 2: Excavation Areas 1 and 2 and Bellrope Meadow locations showing all features.

by stratigraphic relationships, not by intrinsic dating; the artefactual evidence recovered from the Period 3 phases is diagnostic of the period but is not further divisible. The remains relating to post-Roman land use are considered to be of lesser significance; these lie outside the main focus of this article and are not discussed in detail.

The excavation results are described and discussed by period, with reference made to applied grouping and land use, and to individual features by context number (in square brackets) as appropriate. Feature grouping is denoted by numbers prefixed with 'G', that either brings together parts of the same extensive feature (*e.g.* excavated segments of a single ditch) or quantities of associated, similar or contemporary discrete features (*e.g.* a pit cluster). The land use abbreviations employed are: Open Area (OA), Building (B), Enclosure (ENC) and Field System (FS). The group numbers are not generally cited where a discrete land use entity (such as a building or a field system) is discussed.

Five residual flint artefacts were recovered from later contexts on the site, dating to the Neolithic or Bronze Age periods on technological grounds. These indicate a low-level background activity in the vicinity prior to the Iron Age and are not considered further in this article.

Period 1: Middle Iron Age (400–100 BC)

Only a single feature on the site originated from this period, a substantial north-west/south-east aligned Ditch G1, in the north of excavation Area 1 (Fig. 3). It measured 1.62m wide and 0.82m deep with a terminus at its south-east end, and was the earliest part of a feature that was recut in the Late Iron Age (Fig. 12, Section 1). It ran close to the north edge of the excavation area and turned northwards beyond its limit, but was also recorded in the evaluation Trench 6 continuing to the north-east. The primary fill of the terminus contained exclusively Middle Iron Age pottery, while the presence of further large sherds of Middle Iron Age pottery, together with Late Iron Age finds, in a recut fill suggests the similarly dated primary fill was disturbed elsewhere along the course of the ditch. There is no firm indication of either the extent or function of ditch G1; if it constitutes part of an enclosure then the majority of it extends north into the unexcavated preservation area of the site.

Pottery of Middle Iron Age date was also recovered from later contexts in other features, and was therefore residual. Its occurrence was concentrated in Area 1, implying that settlement on the site began in this vicinity but that later activity had destroyed or masked the evidence. It is probable that further Middle Iron Age features are present to the north of the excavation area. However, in the absence of further evidence, ditch G1 is assumed to have occupied an essentially unenclosed landscape (OA1).

Period 2: Late Iron Age (100 BC–AD 50)

The majority of the demonstrably Late Iron Age features appear to have been of earlier 1st century AD date. Indeed, the vast majority of all recorded remains dated to the 1st century AD; consequently, the distinction between the Late Iron Age and Early Roman periods was not always readily apparent. In addition to diagnostic artefact dating and stratigraphic relationships, criteria of orientation, juxtaposition and general

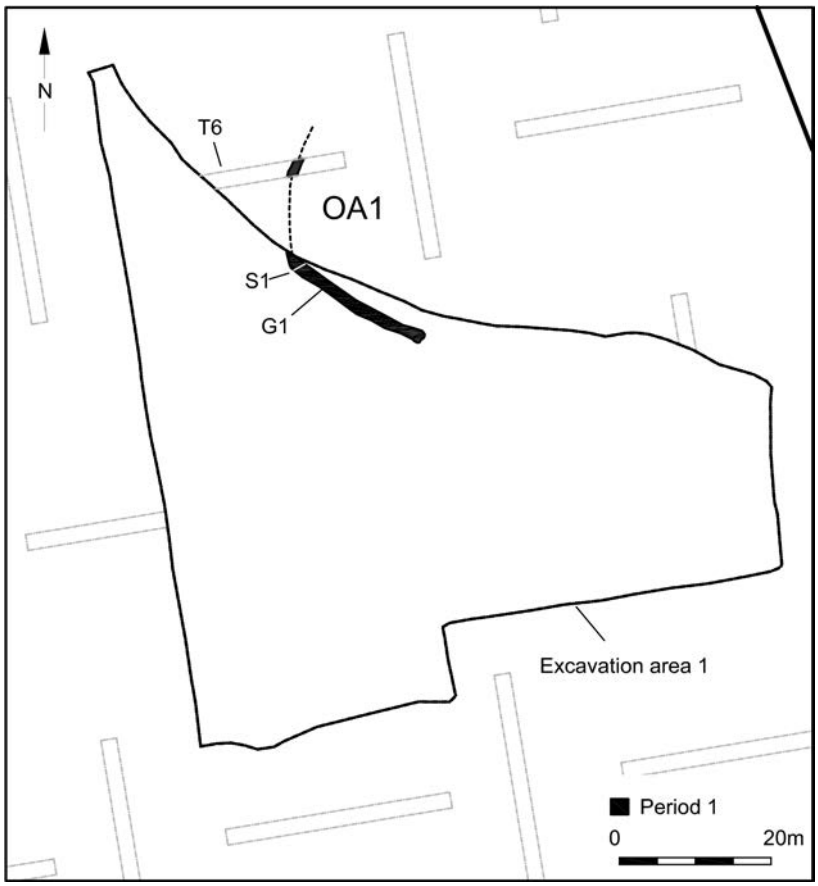

FIGURE 3: Middle Iron Age features, Period 1 plan

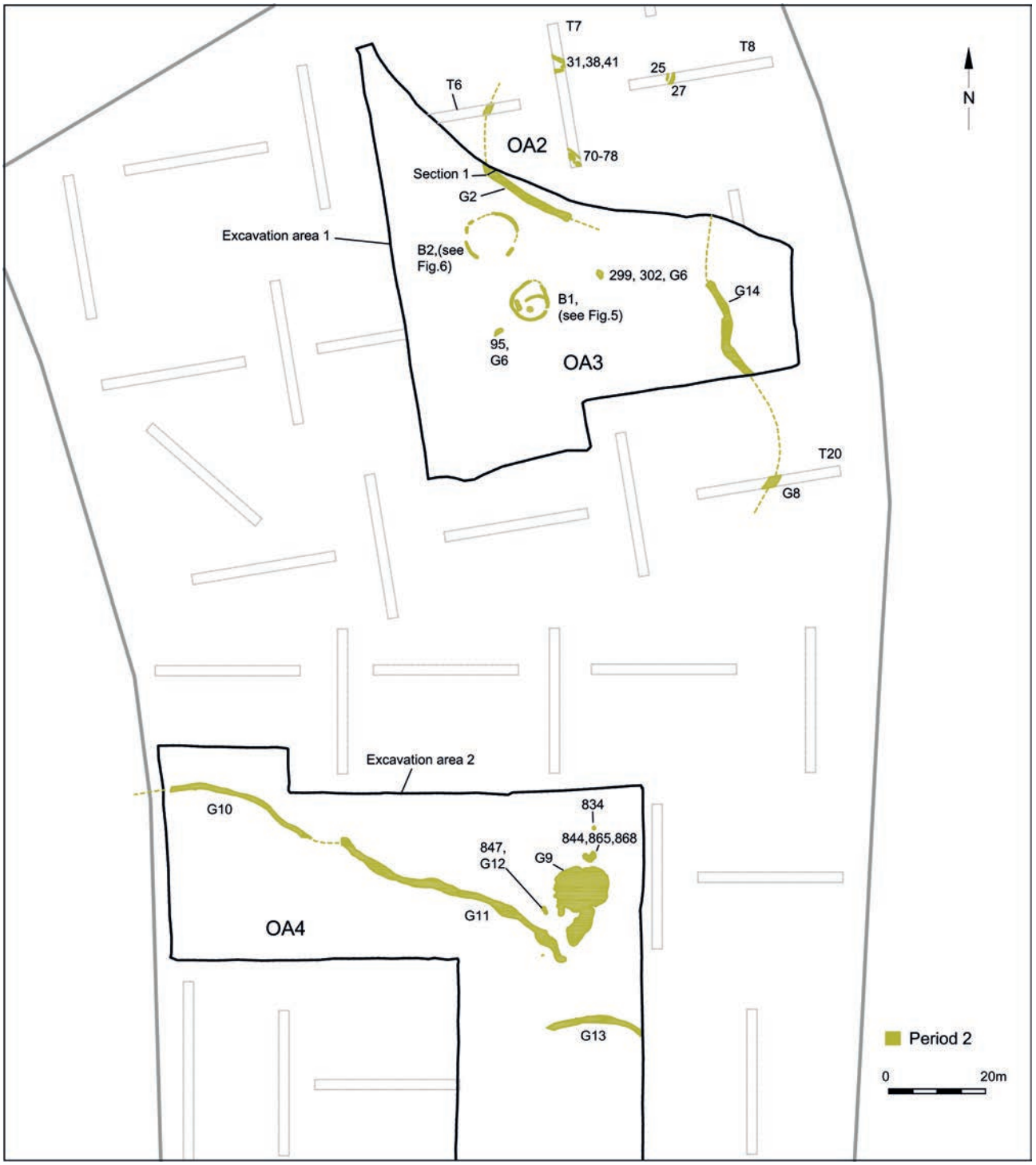

FIGURE 4: Late Iron Age features, Period 2 plan

landscape layout have been employed. It is probable that the Late Iron Age and Early Roman activity was continuous and relatively intense on the site, from *c*.AD 10 to AD 80, though the persistence of posited enclosure ditch G1 from Period 1 to Period 2 would appear to infer at least a degree of continuity of land use prior to this.

Area 1

Within Area 1, Late Iron Age activity was principally represented by two ring-gully structures, interpreted as roundhouse Buildings 1 and 2, and ditch G2, the recut of Period 1 ditch G1 (Fig. 4). The roundhouses were the only buildings of any period identified on the site.

Building 1

The southern roundhouse B1 was represented by a sub-circular ring-gully averaging 0.50m wide and 0.26m deep, and *c*.8m in diameter (Fig. 5). It possessed a likely entrance at its south-east where terminus [61] marked the south side of the doorway. However, a corresponding terminus was not recorded to the north (possibly due to poor weather conditions leading to flooding during the excavation). The only other potential

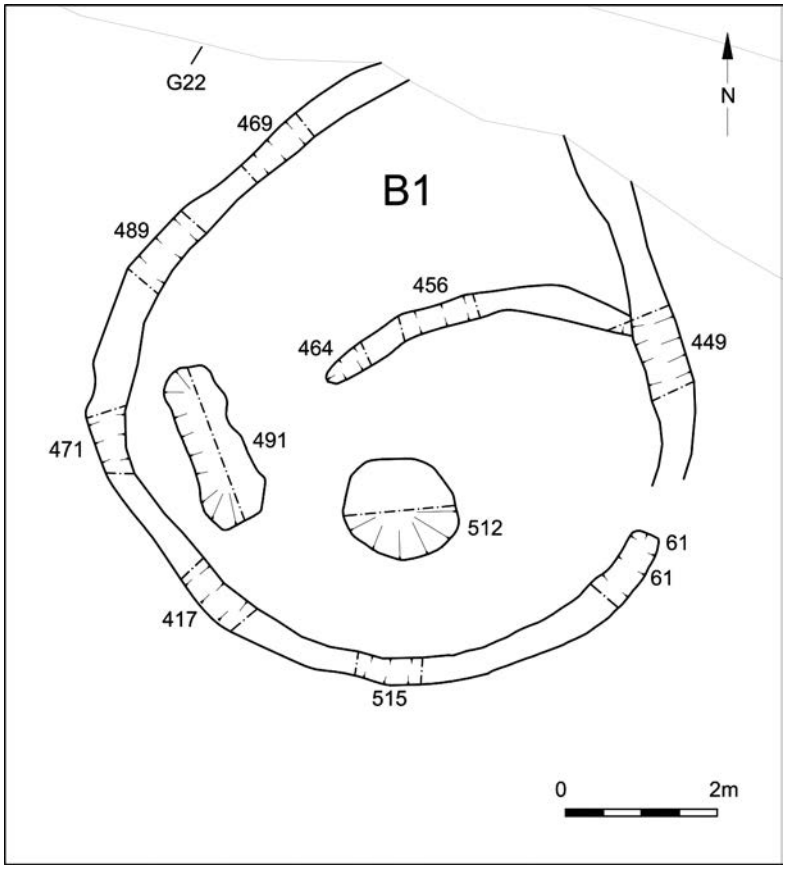

FIGURE 5: Plan of Building 1

location of the entrance was to the north, where the ring-gully had been truncated by later ditch G22. Finds from the gully fills included pottery dating to AD 10–80, but fill [470] in excavated segment [471] contained two very small fragments of buff oxidised flagon fabrics dating to *c*.AD 40–80. While they may be intrusive they could also suggest that the roundhouse continued in use into the immediate post-conquest period.

Three features were recorded within the B1 interior. A curved gully [456], 0.27m wide and 0.19m deep ending in a rounded terminus [464], appeared to be earlier, as it was apparently cut by the roundhouse gully, but it did not extend beyond the eastern perimeter of the building. It could have been a contemporary internal division which perhaps went out of use before the disuse of the building itself. Two pits in the interior may also be related. On the west side, roughly rectangular pit [491] was 2.17m long and 0.72m wide with a rounded base. Oval pit [512], with a flat base, measuring 1.45m x 1.28m and 0.31m deep, lay towards the south of the building. The fill of the latter produced a small quantity of pottery dating to AD 10–80, contemporary with the roundhouse gully fill.

Building 2

The northern roundhouse B2 was slightly larger, at 11m in diameter, though disrupted by later features, in particular a Roman ditch (G24) and a modern drain (Fig. 6). In this case the U-shaped gully averaged 0.41m wide and 0.19m deep and it was discontinuous, with multiple small gaps along its north-west and east course. The substantial gap on its southern side may have been the result of truncation removing a shallow gully segment here. One gap was flanked by a post-hole [347], 0.30m deep and 0.35m wide, in the north terminus of gully segment [345], suggesting a possible entrance, though the gap of 0.65m wide was fairly narrow. No associated features were found in the interior of this building. Finds from the fills were few and broad in date range, with pottery recovered from excavated segment [282] dating to 400 BC–AD 80.

Other Period 2 features, including ditches 2 and 3

Four pits (G6) were present in the vicinity of the roundhouses (Fig. 4) and most likely relate to their occupation, although their exact function is unclear. An irregular elongated pit [95], measuring 2.10m by 0.81m and 0.30m deep with steep sides and a flat base, was located 4m to the south-west of B1. Two intercutting pits, [299] and [302] were also present 11m to the north-east of B1. They were both oval, with pit [302], the largest at 0.80m wide and 0.20m deep, cutting pit [299] at 0.90m wide and 0.27m deep. Pit [302] was truncated by later enclosure ditch G24 (Period 3b). A final severely truncated pit [336] lay 8m further to the north-east (not shown on Fig. 4). There was little remaining as it was cut by the G16 ditch (Period 3a). Nevertheless, it yielded pottery dated AD 10–80.

A broadly north-to-south ditch, G14, was dug with a meandering course to the east of B1. In the south, it was 2.00m wide and 1.10m deep with a V-shaped profile and four fills; the primary fill being composed of grey silts naturally formed from its use for drainage, containing pottery dated AD 10–80. The other three fills also yielded pottery of the same period, and the secondary backfill produced a sherd dating to after AD 40 (a small fragment of tile dating to 1200–1500 is considered

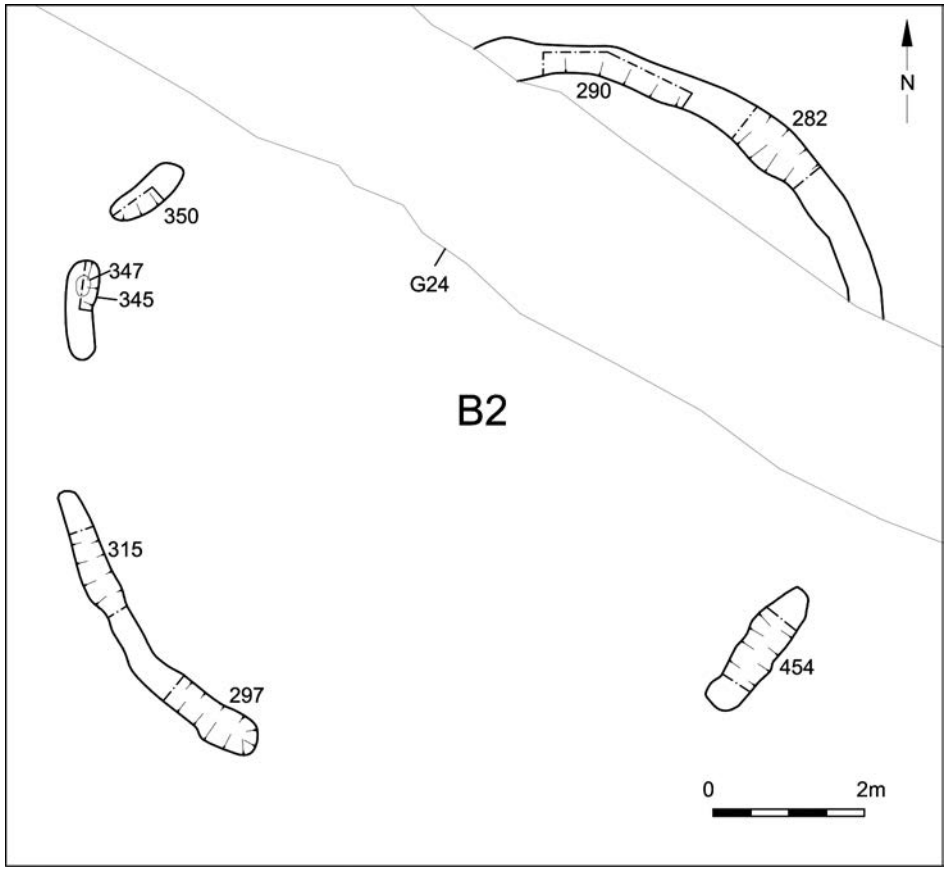

FIGURE 6: Plan of Building 2

intrusive). The ditch was considerably shallower to the north at 0.60m deep. It is conjectured that ditch G8 in Trench 20, some 60m to the south-east of B1, is a further part of the same feature. However, it yielded a small quantity of pottery only very broadly dated to 400 BC–AD 80. It was 1.83m wide and 0.35m deep, with steep sides and a flattish base. Although rather speculative, it conceivably represents the south-eastern boundary to the occupied area.

Just to the north of the roundhouses B1 and B2 was curving ditch G2, clearly a re-cut of the Period 1 ditch G1 (Fig. 12, section 1), demonstrating the continuation of the same land entity into Period 2. The re-cut was a narrow U-shape in profile, 1.80m wide and 0.85m deep. Three of the fills yielded a quantity of pottery indicating a date of AD 10–80 (three small fragments of medieval tile purportedly from the top fill are considered intrusive). It is tempting to interpret the ditch as defining/perpetuating an enclosure that extends north of Area 1, but its continuation was not apparent in any of the evaluation trenches beyond Trench 6, or indeed east of the terminus recorded within the excavation area.

A small quantity of remains (G5) to the north of G2, comprise pits and gullies found in Trenches 7 and 8. Although poorly dated, they differ significantly in character and alignment to those of the Early Roman Period 3 and are believed to be contemporary with G2, perhaps even being enclosed by it. Gully [25] in Trench 8 was 0.30m wide and very shallow at 0.07m deep. However, adjacent gully [27], at 0.67m wide and 0.17m deep, with a rounded profile, was potentially curving and could, speculatively, represent part of a further roundhouse within the posited enclosure interior. A cluster of four oval to circular pits aligned north-west/south-east at the south end of Trench 7, [72], [74], [76] and [78], measured between 0.36 and 1.70m in length and up to 0.28m deep, and were all filled with a similar grey brown silty clay. The fills of [72] and [74] contained pottery within the range AD 10–80. An adjacent linear gully [70], on the same alignment to the north-east, was only 0.18m wide and 0.06m deep but filled with a similar fill, and might denote a boundary to this activity. It was also parallel to the G2 ditch, perhaps indicating a degree of contemporaneity in the absence of dateable artefacts.

At the north end of Trench 7 were two further gullies and a pit. Gully [31] was aligned north-west/south-east and was 0.50m wide and 0.34m deep with a rounded base. Gully [41], 2m to the south was similar in size at 0.52m wide and 0.27m deep but was aligned east-to-west and ended in a rounded terminus to the east. A rounded elongated pit [38], measuring 0.63m long (to the limit of excavation) x 0.53m wide and 0.23m deep lay between them. All three features each contained two silty clay fills. The finds from the primary fills of [31] and [38] provided a broad date range of 400 BC–AD 80, but the secondary fill of the southern gully [41] was dated more closely to AD 10–60.

Environmental evidence from Period 2 Late Iron Age remains was scant. The presence of oats in the B2 gully and a general predominance of agricultural weeds generally suggests that agriculture was undertaken in the vicinity but its nature was not established.

Given the perpetuation of posited enclosure ditch G1 as G2 and the apparent presence of remains within it, and the appearance of roundhouses outside it, the emergence of a

more defined landscape is identified. Within excavation Area 1 land entities OA2 and OA3 are discerned, though a third could be inferred east of G8/G14.

Area 2

The primary indicators of activity in Area 2 comprised a pond or watering hole G9 and ditched boundary G10/G11/G13 (Fig. 4). This part of the landscape does not appear to have been tangibly occupied or utilised prior to the Late Iron Age. Slightly sinuous boundary G10/G11/G13 is reminiscent of ditch G8/G14 in Area 1 and is regarded to define a significant land division; the southern extents of OA3 to its north and OA4 to its south.

Ditch G10/G11 and G13

Ditch G10/G11 extended across excavation Area 2 on a slightly sinuous but otherwise west-north-west/east-south-east alignment. Recorded over a distance of *c*.90m, it clearly continued west across the Bellrope Meadow excavation and beyond. At its maximum it was 1.5m wide and over 0.70m deep. Its width varied but it became narrower and shallower to the west at 1.00m wide and 0.30m deep, and was generally steep sided and flat based, although more irregular in places. The fills were variable, mainly brown and orangey-brown silty clays or sandy silts. In some segments a primary and secondary fill were present, in others just a single fill. Truncated in various places by Period 3 ditches, its rounded east-south-east terminal was located 12m north of ditch G13. It is conjectured to have perhaps followed the course of a naturally-formed channel which had been enhanced by deliberate cutting and it was kept clear by re-cutting. Although its fills produced pottery of AD 40–80 date, its irregular form suggests it was of Late Iron Age origin; likely being deliberately backfilled early in the post-Conquest period to make way for the much more regular Period 3 Field System 1.

South of the G11 terminal, curvilinear ditch G13 ran east to west to the eastern edge of Area 2, measuring *c*.18m long by 0.80m wide and up to 0.21m deep. Its western terminal had been removed by a later ditch (G45 in Period 3b). The mid-grey brown silty clay fill contained no definitively early finds, the pottery being early to mid-1st century, but stratigraphically it pre-dated the various Period 3 ditches (G43, G45 and G47) which crossed it. It is speculated to constitute a further part of the same boundary as ditch G10/G11, perhaps defining a 12m-wide and slightly funnel-like entrance gap between them.

Pond G9

Large, irregularly-shaped, pond G9 measured *c*.18m by 11m and up to 0.40m deep, and was located in the north-east of Area 2. As much a hollow as a cut feature, where excavated its base was irregular and heavily pitted. Its two principal fills were dark grey organic clay silts with few inclusions, which had built up gradually in a wet environment. Environmental samples collected from the fills produced cereal grains including spelt/emmer and barley along with unidentified cereal grains (*Cerealia*), showing evidence of cultivation in the vicinity as well as wild seeds including oats, dock (*Rumex sp*.), grasses (*Poaceae*), black bindweed (*Fallopia convolvulus*) and goosefoot (*Chenopodium sp*.). Wood charcoal fragments included oak, Maloideae, ash and field maple. Artefacts recovered from the pond included a significant quantity of pottery, with over 500 sherds dated AD 40–80. Like adjacent ditch G10/G11/G13, this feature was likely of Late Iron Age origin and became infilled in Period 3. At a maximum depth of 0.40m the pond was very shallow for its overall extent, even allowing for truncation by later ploughing. It probably functioned as a watering hole or muddy wallow for animals, the uneven and pitted base of the feature perhaps being caused by livestock. The location of pond G9 close to the postulated funnel-like access gap through the G10/G11/G13 boundary may well be of significance, with the elongated southward protrusion of the pond being created by animals heading to or from the entrance gap.

Land entity OA3, containing Area 1 buildings B1 and B2, might be construed to extend as far south as ditch G10/G11/G13. If so, pond G9 is effectively within it. South of this boundary, a further entity, OA4 is assumed. However, no Period 2 remains were encountered in the exposed part of its interior.

Within this southern part of OA3, all other occupying features seem to be focused on the G9 pond. Three intercutting pits on its north edge, [844], [865] and [868], had steeply sloping sides and rounded bases. They measured between 1.60m and 0.60m across and up to 0.42m deep. Their function was unclear but they may have been associated with the use of the pond. A fourth smaller flat-based pit [834], 0.70m wide and 0.20m deep, lay 5m to the north. The fill of pit [865] contained pottery dating from AD 10–80. Some or all of these pits could have been associated with the later survival and functioning of the pond in Phase 3a. A further pit, [847], was located close to the south-west of the pond.

Period 3: Early Roman (AD 50–AD 100)

The majority of all features recorded in both excavation areas are Early Roman in date. The pottery suggests concerted activity from after AD 40 to *c*.AD 80, at the start of which pond G9 and meandering ditch G10/G11/G13 were both backfilled in Area 2 and rectilinear enclosure ditch systems subsequently imposed across both excavation areas. There is some degree of intercutting and relatively minor changes in orientation, demonstrating more than one phase of activity in this brief period of time. Two broad developmental phases are identified (Phases 3a and 3b), though these do not necessarily directly equate between Area 1 and Area 2. The pattern of ditches in Area 1 is less regular than that observed in Area 2. In terms of pottery dating the phases are virtually indistinguishable, being all generally placed in the mid to late 1st century AD. The phasing of the more isolated and only broadly Roman-dated features has been achieved mainly by proximity to other features or by their character, but it is acknowledged that, in many cases, the features could belong to either phase within their excavation areas.

Phase 3a (Area 1)

While meandering ditch G8/G14 may have at least partially survived into Period 3, the Period 2 G2 enclosure and outlying roundhouses evidently passed out of use and were removed from the landscape. However, this location seems to have persisted as one of occupation activity. The broadly rectilinear settlement enclosure is identified as OA6, while the apparently un-subdivided landscape around it is OA5.

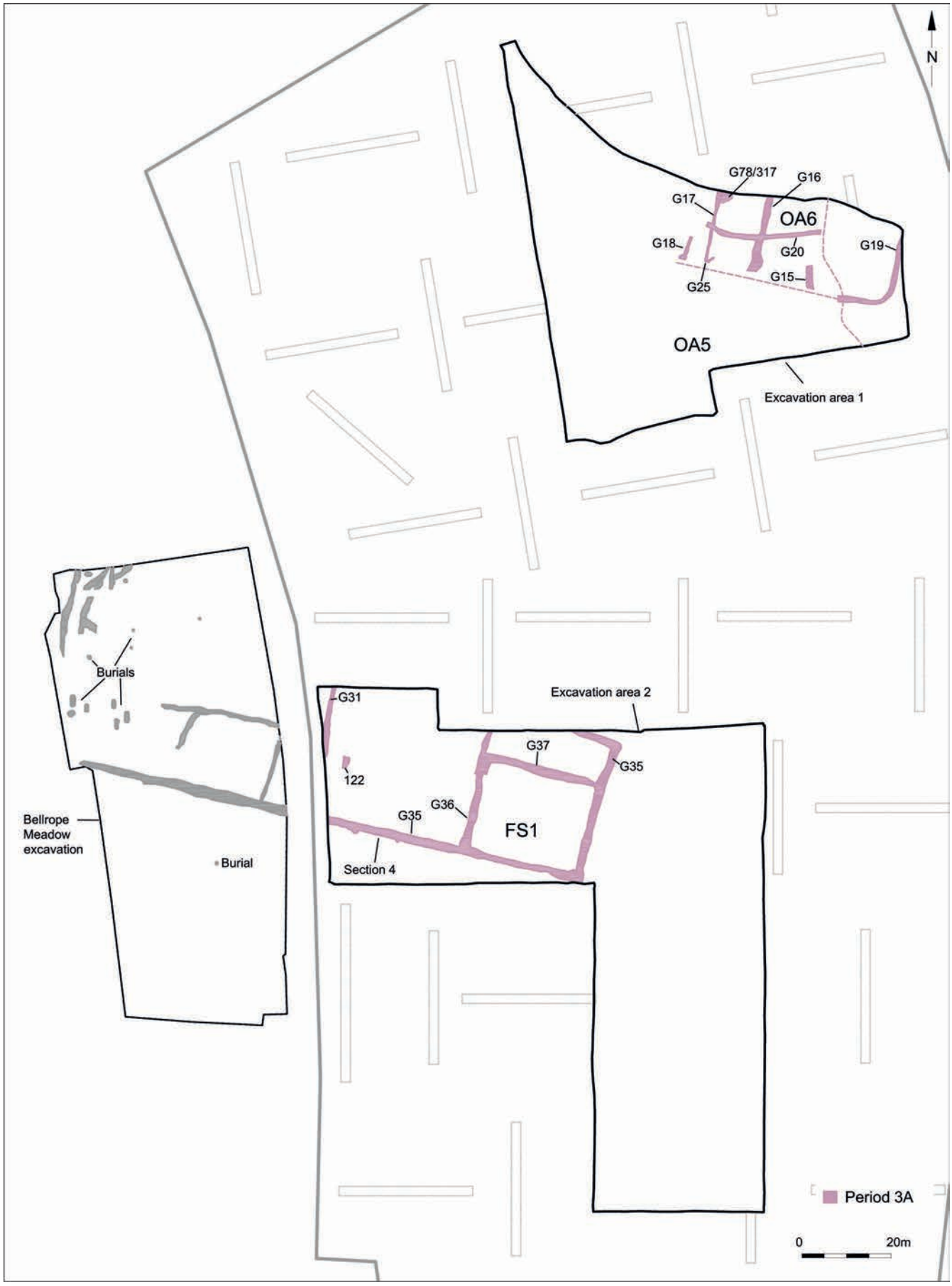

FIGURE 7: Early Roman features, Period 3a plan

Open Areas 5 and 6

A series of relatively narrow ditches and gullies delimiting small irregular plots (OA6) were exposed across the north-east of Area 1, possibly defining an occupation enclosure (Fig. 7). The easternmost ditch G19, 1.03m wide and 0.32m deep, was rounded in profile and formed a north-to-south boundary, returning westwards at its south end. It was cut by later Phase 3b ditch G22, which replaced it along the southern boundary, so its precise course and extent is inferred. Ditches G15, G16, G17 and G20 appear to subdivide the OA6 interior, seemingly spaced at 10m to 12m intervals, the ditches themselves varied between 0.40 and 1.20m wide and 0.30 to 0.68m deep and containing either a single fill or, more rarely, two fills. The westernmost ditch G18 was irregular and insubstantial at less than 0.30m deep, and may have been a drainage gully rather than a substantive boundary. It is postulated that the northern part of Period 2 ditch G14 was retained and incorporated into this layout. Moderate amounts of pottery were recovered from the excavated parts of G16 and G20, all giving a date between AD 40 and AD 80. Of note, an incomplete adult skull, possibly male and showing signs of possible sharp-force injury, was recovered from fill [362] in G20 ditch segment [361].

The G17 ditch ran north to south, cutting through a large pit [317] (G78) which measured at least 2.30m by 2.30m and 0.73m deep, containing six fills. The primary fill [318] and a fill on the west side [319] were slumped into the pit. The next fill [320] represented a thin silting episode prior to the use of the pit. The main fill was [321], a dark grey/black silty clay which contained pottery, burnt and unburnt bone, an oyster shell fragment and an iron nail, and was interpreted as a refuse deposit. The pottery was dated AD 40–80 from this fill and AD 10–80 from the primary fill [318].

OA5 appears to have been essentially unenclosed and entirely lacking in features indicative of activity within it, such as pits. However, it cannot be entirely discounted that some of the pits similarly external to Phase 3b Enclosure 1 were in fact of earlier date.

Phase 3a (Area 2)

Following the probably deliberate infilling of Period 2 boundary G10/G11/G13, a rectilinear field system (FS1) was laid out (Fig. 7). As previously mentioned, the ditch G10/G11 fills contain Early Roman pottery. In addition, a small human cranial bone fragment, probably adult, was recovered from fill [795] of G11 ditch segment [796]. In contrast, pond/wallow G9 appears to be avoided or respected by FS1 and may have endured alongside it in the landscape at least as late as site Phase 3a.

Field System 1

Field system FS1 was established after the backfilling of G10/G11 and consisted of relatively wide (1.40m-1.90m) and deep (up to 1m), linear ditches on east-north-east to west-south-west and west-north-west to east-south-east alignments, defining the extents of rectangular plots of varying sizes. The ditches were steep sided and mostly U-shaped in profile (Fig. 12, Section 4), usually with a single fill, but in places two fills of varied mid grey brown sandy silts or silty clays were present. The southern boundary ditch G35 continued westwards across the Bellrope Meadow excavation. The only field exposed in its entirety within Area 2, at the south-east of FS1, measured 25m x 20m. However, the western plot measured at least 33m east to west and was more than 32m north to south, while the north-east plot was far smaller at 25m x 10m and perhaps in reality just a subdivision of that to its south.

The FS1 ditches were fairly substantial and may have been used for corralling animals rather than delineating fields of crops; if the G9 pond was still in use at this time there was a ready water supply available to the east. The fills of eight excavated segments through the FS1 ditches produced pottery, all dating to AD 10–80 and two yielding a post-AD 40 date; very small quantities of fragmentary medieval and post-medieval tile, metalwork and pottery are considered intrusive.

A pit [122] with three stake-holes along its south side was cut by later ditch G32 (Phase 3b). It was 2.40m wide north to south but was only observed in the evaluation Trench 27 and not during the excavation, so its full extent was not recorded. It was shallow at 0.20m, with an irregular flattish base. The closely-spaced stake-holes on its south side measured 0.10m in diameter and 0.07m deep. They had clearly held vertical stakes but their function in relation to the pit is unclear.

Phase 3b (Area 1)

The vaguely rectilinear Phase 3a enclosure was evidently replaced by a far more substantial and extensive double-ditched enclosure, ENC1. The immediate environs surrounding this, OA7, were occupied by the remains of associated activity comprising two large and vaguely linear features and a number of pits and post-holes which did not appear to form coherent structures. The function of this area remains obscure; one pit contained fragments of iron slag but there was no further indication of iron working in Open Area 7.

Enclosure 1

Enclosure 1 consisted of a double ditch system enclosing a large area to the north (Fig. 8). Two large, roughly parallel enclosure ditches (G21/G24 and G22/G23), which cut through the earlier Phase 3a ditches and the Period 1 roundhouses, crossed most of Area 1 from west-north-west to east-south-east. They varied between 1m and 2.5m wide and up to 1.2m deep in places. They each returned northwards at their eastern end and were also recorded in the evaluation Trench 8 some 30m to the north of the excavation limit. The ditches were generally about 5m apart but at the west end they diverged to over 12m apart. Both had a steep-sided U-shape in profile with a relatively flat but narrow base and up to five fills (Fig. 12, Sections 2 and 3). The outer ditch G22/G23 ran for 75m from the western edge of the excavation before returning to the north for a length of more than 55m. Dating evidence from its fills was generally AD 10–80 but one segment, [375], yielded a more precise date of AD 40–80 derived from thirty-two sherds of pottery across three fills. The inner ditch G21/G24 largely ran parallel with the outer ditch, with the space between them presumed to have originally been occupied by an upcast bank deriving from their excavation, although no evidence for a bank remained. A single small stake-hole [415], 0.30m wide and only 30mm deep, was found between the ditches. The top fill of one excavated ditch segment, [317], contained fifty-nine sherds of pottery giving a date of AD 10–80. The dating of both ditches was corroborated by smaller collections of artefacts from other fills of early to

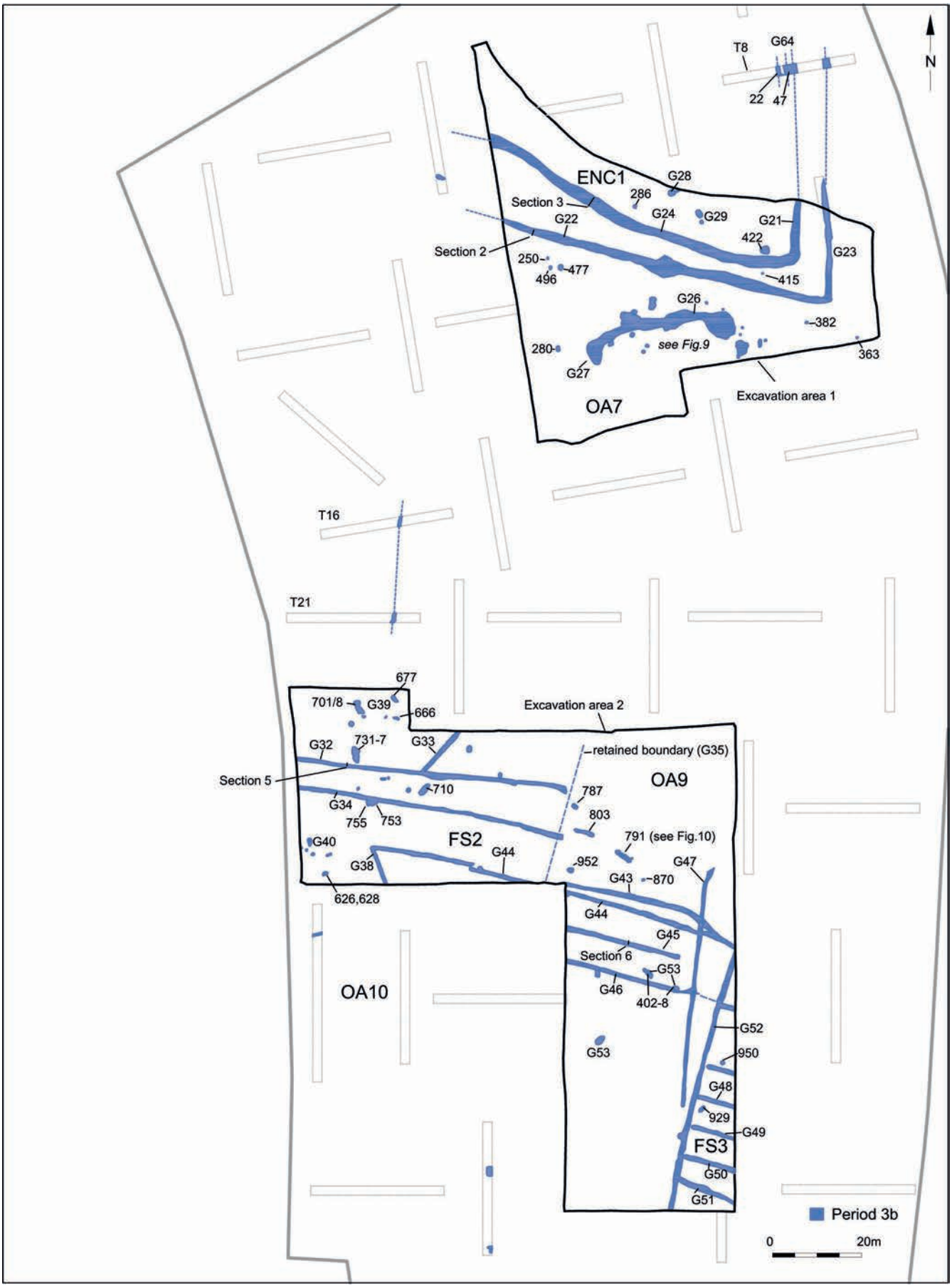

FIGURE 8: Early Roman features, Period 3b plan

mid-1st-century date (three very small fragments of medieval material are considered intrusive).

Only a few features were recorded within the enclosure interior, as the majority of this lay outside the excavation area. Five pits were found (G29), but there were no apparent structural groupings. Pit [422] was circular, 1.61m in diameter and 0.52m deep. It contained four fills, with the primary fill [423] being natural silting. The secondary fill [424] was deliberately dumped dark grey/black silty clay containing a large amount of pottery dated securely to AD 40–80, suggesting that it may have been a refuse pit. Further pottery from the upper fills also produced the same date.

Two adjacent pits [288] and [292] were possibly associated with one another. Circular cut [288] was 0.76m in diameter but only 0.10m deep. The silty clay fill [289] contained abundant charcoal but no dating evidence was recovered. Larger oval pit [292] was located 1.5m to the north-west and was 1.94m x 1.18m and 0.30m deep. Its two fills also contained charcoal; soil sample <36> from upper fill [293] yielding burnt fragments from a variety of wood types including holly, field maple, oak, hazel/alder, elm, ash and alder buckthorn. A more isolated oval pit [286], 0.70m x 0.65m and 0.28m deep, again contained burnt material in its single dark grey/black silty clay fill. Soil sample <33> collected from it produced charred plant remains, including a cereal caryopsis and a black bindweed seed.

Finally, circular pit [412] (G28) was 1.35m in diameter and 0.21m deep. A gully [414], 0.37m wide and very shallow at 0.06m deep, appeared to be integral to the pit and contained identical fills. The pit fill [411] contained pottery only broadly dated to 50 BC–AD 80.

That part of evaluation Trench 8 within the ENC1 interior contained two further linear features (G64) running parallel with the enclosure ditches. Cut [47], measuring 1.54m wide and only 0.22m deep, was immediately adjacent to the inner ditch and, although much shallower, was probably a part of it. However, cut [22] was 0.85m wide and more regular. At only 0.20m deep it had the potential to be a structural slot but only 1.80m of its length was observed. It contained two fills, the later one of which was dated by pottery to AD 40–80.

Open Area 7

In the south of Area 1, a number of disparate features occupied the land outside ENC1 (OA7), most of which were clustered around two very large, irregular, broadly linear cuts, G26 and G27 (Fig 9). The earliest feature in this location was a large pit [448] which was 4.05m east to west by 2.20m north to south (truncated) and 0.67m deep. It contained three fills, the second of which dated to AD 40–80 and the top of which yielded pottery from AD 50–80. However, a bracelet (RF<19>) comprising a copper-alloy wire armlet with twisted expanding clasp was also found in the top fill [447]. This type of armlet is often dated to the 3rd to 4th century, based on a dated example found at Colchester (Crummy 1983, 37). Earlier examples are known, *e.g.* at Winchester where some copper-alloy parallels date as early as the mid-2nd century, whereas iron wire bracelets with the same type of clasp were found in late 1st- to early 2nd-century contexts. In this instance the dating of all pottery within the feature, as well as the later pit to the north-west and the later ditch to the south, is firmly within the 1st century up to AD 80. Either this is a particularly early example of the form or it is intrusive in the top of the feature.

Pit [294] was cut into the top of pit [448]. It was circular, 1.50m in diameter and 0.25m deep. Pottery from the single fill dated to AD 10–80 and twelve pieces (656g) of ironworking slag were also recovered—the largest single context assemblage from the site. Another pit directly to the north, [365] was oval, 0.97m x 1.10m and 0.31m deep. It remains undated but its proximity, the similarity of the fill and general form suggest its association.

The above pits were truncated by G27, one of two broad linear features running east to west across this part of the site, along with G26. Whether these linear features can be described as ditches is debateable; they varied in width from

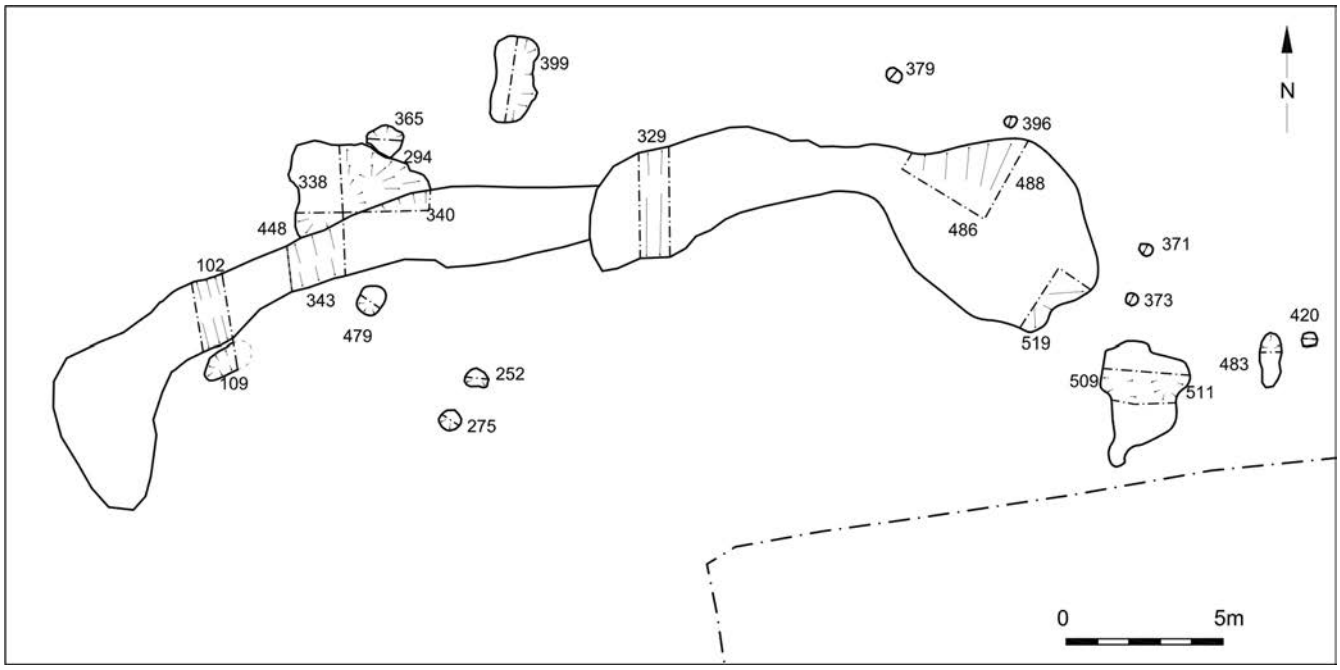

FIGURE 9: Ditch/pit complex G26 / G27, etc.

1.65m to 5.5m and in depth from 0.72m at the east end of G26 to over 1.20m at its west end. They were fairly formless in plan with G27 running west on a slightly curved alignment and terminating in an irregular dogleg. G26 broadened out into a large pit-like terminus at its east end. Together they were 33.5m in length and their relationship was not established by excavation. It appeared on the surface that G26 was later in plan, but they may in fact have been parts of a single feature. There were up to four fills in G26 and two in G27, with the pottery dating to the Late Iron Age/Early Roman period, falling into the decades prior to AD 80 across all fills. It is difficult to envisage a function for them as drainage, enclosure or boundary ditches.

A scatter of associated features, G30, included post-holes and stake-holes in OA7 but there was no obvious structural patterning to them. A small cluster of four features were present to the south of G27, two of which [252] and [275] were post-holes less than 1m apart. The other two, post-hole [479] and small gully [109], were within 0.5m of the G27 linear cut. The post-holes were between 0.5m and 0.75m in diameter and 0.22 to 0.35m deep. Gully [109] was only recorded in evaluation Trench 12. Pottery from [109] and [252] was closely dated to AD50–80. It is not clear what kind of structure, if any, was represented by the post-holes. Of these G30 features, two fragments (391g) of ironworking slag were recovered from post-hole [479] and a single relatively large fragment (170g) from pit [338].

Around the east end of G26 were four post-holes [371], [373], [379] and [396] between 0.35m and 0.55m in diameter and 0.15m deep. They were spaced between 4m and 6m apart over a distance of 16m, except for [373] that was 1.4m to the south of [371]. Although four were in a rough alignment it is unlikely they formed a structure as they were too widely spaced to be, for example, a fence-line. Two intercutting irregular features adjacent to them, [509] and [511], together measuring 4.10m x 2.20m and 0.35m deep, were possibly parts of a single pit with a small recut, and may have been used for quarrying of clay. To the east was an elongated oval pit [483] with a rounded base, 1.80m long x 0.67m wide and 0.30m deep. None of the post-holes or the pits produced any datable artefacts, but at least seem to cluster around G26 and G27.

Another sub-rectangular pit [399], 2m to the north of G27, was steep sided with a flat base. It contained two fills, the primary sandy silt fill [400] containing pottery dated AD 40–80. A further pit [280], *c*.6m to the west of G27, was an irregular oval shape with shallow rounded sides and a flat base measuring 0.96m x 0.69m and 0.08m deep. Although very shallow with very little fill remaining, the pit yielded pottery dated AD 10–80. Another 18m to the north was a small cluster of three pits. Cut [250] was oval, 0.45m x 0.34m and 0.15m deep with shallow sides and a rounded base. A second pit [496] was oval, 0.60m x 0.45m and 0.27m deep with a rounded base and the third, pit [477] was circular, 0.90m in diameter and 0.40m deep with steep sides and a flat base. The single fills of all three pits were a dark brown clay containing few inclusions and no artefacts.

Two other isolated possible post-holes were located towards the south-west corner of Area 1. Cut [382] was oval, steep sided with a significant break of slope on the south-west side and a flat base. It measured 0.45m x 0.35m and 0.18m deep and contained two dark brown silty clay fills, the upper of which contained frequent charcoal flecks. Approximately 12m to the west was a circular post-hole [363], 0.30m in diameter and 0.18m deep with a similar dark brown clay fill. Neither feature produced dating evidence.

Phase 3b (Area 2)

The relatively simple rectilinear FS1 was replaced in the Early Roman period by a far larger and complex ditch system, or systems, in Area 2 (Fig. 8). This perhaps demonstrates expansion of the land under cultivation and presumably a change in agricultural regimes and/or practice. The ditches were uniformly narrower, between 0.60m and 0.82m, and shallower, at 0.28–0.53m deep, than those of Phase 3a and they define three distinct 'blocks' that covered the northern (FS2), central (FS3) and south-eastern (FS4) parts of the excavated area. The majority of the predominantly west-north-west/east-south-east aligned ditches were on a slightly different orientation from FS1, and were generally spaced between 6m and 10m apart.

Field System 2

Field System 2 directly replaced FS1, although it is apparent that parts of the earlier system were incorporated into it or at least exerted an influence over its form and extents.

Roughly east-to-west orientated, and parallel, ditches (from north to south) G32, G34, G44, G45 and G46 constitute the major components of this somewhat oddly-configured complex (Fig. 8).

Northernmost ditches G32 and G34 appeared to respect the former eastern boundary of FS1 (G35), although their east ends were clearly dug into the backfill of the earlier ditch—perhaps incorporating only its largely infilled remnants or perhaps a hedgeline that now marked its course. To the west, these ditches did not extend into the Bellrope Meadow site and instead appear to have terminated on the western boundary of FS1 (G31). As such, they were contained within the former field system.

Although ditch G44 ran similarly parallel to their south, it did not extend as far west as former boundary G31 nor did it respect G35, instead extending beyond it at least as far as the eastern limit of excavation Area 2—G44 being traced over a distance of *c*.73m. At its west end, G44 turned an acute angle to head south-south-east, though its continuation beyond Area 2 was not identified in evaluation trenches to the south. It is perhaps noteworthy that a similar acutely-angled junction is evident between ditch G32 and ditch G33, in this case the latter seeming to be a distinct separate feature cut by the former and extending off to the north-east beyond the limit of excavation. Despite their stratigraphic relationship, both overlay the FS1 field system and at least a broad contemporaneity may reasonably be assumed. A certain rough symmetry between G38/G44 and G32/G33 is tentatively discerned here, though an explanation for this occurrence is unclear.

Along its east, ditch G44 is flanked to the north by curving ditch G43. While they evidently merged at the eastern excavation limit, their relationship at the west end of G43 was not exposed. It would appear that one was simply the replacement of the other, though why G43 was curved is unexplained. Furthermore, it is conjectured that G43 may well have terminated immediately adjacent to the corner of retained east side of G35, while G44 ran along its former southern

side—both replacing and perpetuating this boundary. To their south, further parallel ditches G45 and G46 constitute the southern extent of FS2. An unfortunate consequence of the L-shaped excavation area was that it was not possible to determine whether either of these extended west as far as, or indeed beyond, ditch G38.

Although of differing east-to-west extent, many of these FS2 ditches can be demonstrated to have been placed in the landscape in relation to elements of the former FS1 layout. Their parallel arrangement incorporates a variable spacing of 6.50–9.00m. They were between 0.75–1.05m in width and 0.25–0.35m deep. In profile the FS2 ditches were steep-sided with a gradual break of slope to a fairly flat base (Fig. 12, Sections 5 and 6). Their mostly single fills were typically mid to dark brown silty clays from which pottery provides a generally broad AD 10–80 date, though occasionally AD 40–80. However, as with FS1, apparently medieval tile fragments were retrieved from excavated segments through G32 (fills [3] and [661]) but all were very small and are judged to be intrusive. The absence of any further medieval artefacts across any of the FS2 ditches is considered indicative of their Roman date (see Thematic Discussion).

Features within FS2

Further north, a ditch G33 ran at an angle to the north-east from ditch G32, extending beyond the limit of excavation. It was steep sided with a flat base and truncated both the earlier G10/G11 boundary and FS1 ditch G36, terminating to the south at the point it joined G32. In excavation it appeared that the G32 ditch was later, cutting the end of G33, but they must have been broadly contemporary given the other stratigraphic relationships and the fact that G33 did not continue south beyond G32. One fill produced pottery dating to AD 10–80.

A number of other features of broadly Early Roman date were excavated among the ditches. The majority were pits with no determined function. Apparent post-holes were present, but were generally isolated and with no associated structural features. It was not established whether they were contemporary with FS1 in Phase 3a or FS2 in Phase 3b.

Four clusters of features were found comprising two or more intercutting pits, none of which were obviously post-holes, creating oval shapes in plan but with no common orientation. It seems that, whatever their function, the pits were backfilled and re-dug in the same location, presumably each one being fairly short-lived. Cuts [731], [733], [735] and [737] were typical of the form, located in an intercut line to the north of G32. They were all bowl-shaped cuts with moderately steep sides measuring between 0.45m and 0.65m deep and between 0.40 and 1.07m wide, creating a line of pits 4.20m long. They all possessed a rounded base and were filled with silty clay of a variety of brown hues. It was hard to distinguish the sequence of cutting, but the northern pit was evidently the latest. No datable finds were recovered. A pair of similar pits was present 16m to the south-east, given a single context number in excavation [710]. A third group 8m north of [731] comprised two pits and a fourth elongated oval cut, pit [677] could fall into the same category. Pit [677] was irregularly cut on its sides and base and may also have been more than one feature.

Pit [666], 3.40m to the south, was much smaller and less likely to have been composed of multiple cuts. It measured 1.20m long, 0.45m wide and a mere 0.10m deep, with an orangey brown clay fill. Another pair of pits, [753] and [755], was present 9m to the south of [733], but did not share the same characteristics as the other three clusters. These were both originally circular with a diameter of 1.14m and 1.20m respectively and very shallow with depths of 0.17m and 0.09m.

A further small group of four pits G40 was found in the south-west corner of the Area 2 northern arm. All four were very shallow at less than 0.15m deep. Another 6m to the south were two further circular intercutting pits, [626] and [628]. Again, they could have been post-holes, the later cut [626] replacing the earlier [628].

Field System 3

Only a small portion of the western edge of a further ditch system was exposed within the east of excavation Area 2 (Fig. 8). Although similarly aligned with FS2 and arguably linked to it (albeit only by ditch G43 and/or G44 that intersect with the north end of G52 and possibly define a corner just beyond the eastern limit of excavation), it is judged to be of sufficiently different character to regard it as a potentially separate system—FS3.

The layout employed in FS3 involved a long north-north-east to south-south-west western boundary ditch G52, respected by a series of six east-north-east to west-south-west ditches of very similar size, depth and profile to those in FS2. However, the ditches were not connected, each of the latter having a terminus less than 1m from the western boundary ditch. These defined strips that were all approximately 6.2m wide except for the northern one, which was double width at over 12m wide. Although the system evidently extended beyond the south excavation limit, no further ditches were noted in evaluation Trench 42.

Features within FS3

Two pits were associated with FS3; [929] which was 0.90m in diameter and 0.28m deep, and [950] measuring 0.80m wide and 0.14m deep, neither of which produced dateable artefacts and are associated with FS3 purely by location.

Open Area 9

The north-east corner of Area 2, OA9, where the G9 pond had formerly been situated, was not apparently under cultivation. The pond had been backfilled but the land probably remained wet or marshy and, without drainage, unsuitable for agriculture. Five pits (G42) were recorded here, of which pit [791] was highly distinctive (Fig. 10). It consisted of a cut 4.15m long, 1.05m wide and 0.40m deep, with a rounded terminus at each end, aligned north-west to south-east. The parallel sides featured five pairs of small projecting niches or notches, each barely 100mm across, which were shallower than the main feature, giving it a 'corrugated' appearance in plan. Three of the side niches contained deliberately placed Roman coins dating to the 1st or 2nd centuries AD (they were unfortunately too corroded to be closely dated). The coins were in or beneath a dark organic material, possibly decayed wood. A single stake-hole [861] was positioned adjacent to the south-east terminus. Potentially, the niches housed cross-bars or supported a timber frame of some description suspended above the bottom of the cut. The pit was located outside the complex of ditches and its function remains enigmatic; however, the presence of the deliberately positioned coins may suggest that

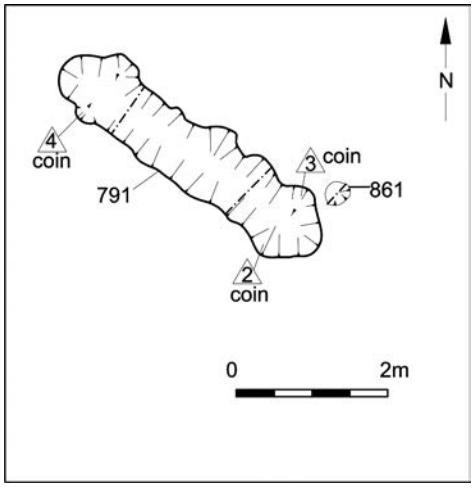

FIGURE 10: Feature [791] showing locations of the coins

the feature had a ritual use or that the placed offerings were intended to ensure the longevity and/or successful functioning of the overlying structure. A second elongated feature [803] lay 6m to the west, similar in dimensions at 4.20m long, 0.74m wide and 0.27m deep, but possessing neither niches nor placed coins.

Three other more conventional pits, [952], 787] and [870], were present in OA9. Of these, pit [952] contained significant amounts of charcoal, although it did not appear to have been subject to burning *in situ*. Analysis of the charcoal content from sample <76> derived from the secondary fill indicated only that it was wood and contained no other environmental information.

Ditch G47

One somewhat anomalous ditch G47, later than FS3 but of very similar dimensions and appearance to its component ditches, ran near north to south down the eastern side of Area 2 (Fig. 8). Its orientation was slightly different from FS4 and it clearly cut through the north boundary ditches of FS3, but it was demonstrably earlier than the Late Roman ditch G54 in Period 4. The date provided by pottery in one of the fills was again AD 10–80, the range typical of the whole period.

Period 4: Later Roman (AD 100–AD 400)

Evidence for land use activity after the 1st century AD is notably sparse—surprisingly so given the intensity of occupation in Period 3. Only two linear features were definitively dateable to the later Roman period, both found in the south of excavation Area 2 (Fig. 11). However, wider activity in the vicinity is demonstrated by the continued use of the Bellrope Meadow cemetery which includes burials of the 2nd and 3rd centuries or possibly later (Stansbie *et al.* 2009, 69). No attempt to identify likely land use entities has been made for the later Roman period.

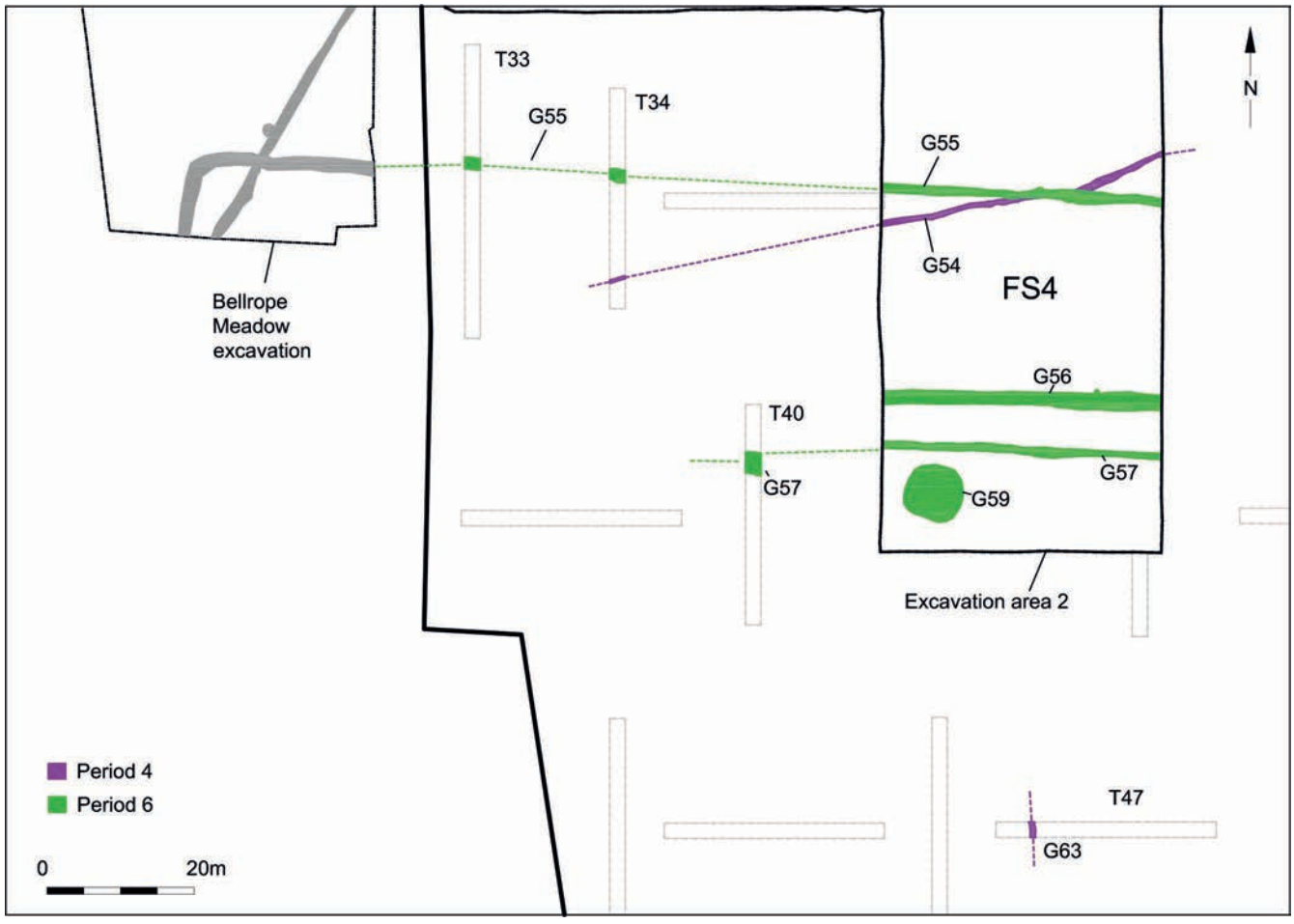

FIGURE 11: Later Roman and post-medieval features, Periods 4 and 6 plans

Ditches G54 and G63

Ditch G54 extended across the site from evaluation Trench 34 into the Area 2 excavation for over 70m. It measured 0.55m wide and was up to 0.25m deep, with steep sides and a rounded base. Its single fill was a grey/brown silty clay. Its orientation was significantly different from the Period 3 activity, being west-south-west to east-north-east aligned and cutting across the earlier FS3 ditches. Only two sherds of pottery, dated AD 270–400, were recovered from the fills. Some 80m to the south another ditch, G63, was recorded in evaluation Trench 47. It was similar in size to G54 at 0.65m wide and 0.16m deep and it possessed a single mid brown silty clay fill. It was probably aligned north-north-west to south-south-east, again differing to boundaries of Period 3, and yielded a small group of pottery dated AD 220–400. Both ditches were probably field boundaries and, judging by the paucity of artefacts in their fills, at some distance from a settlement.

Although pit [448] in Area 1 OA7 was dated by pottery to Period 3, it apparently also contained a Late Roman copper alloy armlet typologically dated to the late 3rd to 4th centuries. Because of the quantity of pottery recovered from the feature securely dated to AD 50–80, the bracelet has been regarded as intrusive. The complexity of the features in the group, coupled with the extremely adverse weather conditions under which they were excavated, may mean that a later feature existed here which was not observed.

Periods 5 and 6: Post-Roman

Between *c*.AD 400–1600 there appears to have been little activity on the site. None of the features yielded post-Roman finds dating prior to 1200. In fact, the medieval Period 5 is not represented at all in Area 1 and only represented by residual artefacts in Area 2 and a scatter of tile broadly dated to 1200–1600 present in the topsoil. Within the excavated areas, post-medieval (Period 6) features were sparse and largely comprised field boundaries (Fig. 11), some of which appear on 1st-edition Ordnance Survey maps. These clearly relate to relatively late agricultural enclosure—Field System 4.

Field system 4

Three parallel, east-to-west aligned, field boundary ditches G55, G56 and G57 (FS4), crossed the south end of Area 2. The northernmost ditch, G55, was 1.10m wide and 0.40m deep with steep sides and a concave base. The same ditch was observed to the west in Trenches 34 and 33 where it was broader at 1.70m wide. It was traced over a distance of *c*.96m, and continued into the Bellrope Meadow excavation where it turned southwards. Ditches G56 and G57 were located 28m to the south. The former was 1.60–1.80m wide and 0.40m deep with a shallow rounded profile. The latter was narrower at 1.00m wide and 0.35m deep. Its westward continuation was tentatively identified in Trench 40, although this was positioned slightly further to the south and had possibly been recut as ditch G76. All three ditches cut across the Period 3 field systems and were filled with a mid brown silty clay which tended to be looser and more friable than the fills of earlier features across the site.

Quarry pit

A large, almost circular, quarry pit [897] (G59) measuring 8.00m east to west by 7.20m north to south was located alongside ditch G57. It was 1.20m deep with an irregular base cutting into a very chalky natural clay deposit beneath. In addition to post-medieval red earthenware pottery, the fill contained a single clay tobacco pipe stem fragment and a green glass cylindrical neck from a bulbous wine bottle of mid-17th- to mid-18th-century date. The clay tobacco pipe fragment is burnished but lacks any decoration or maker's mark, so can only be broadly dated as post-1710. This feature also yielded an iron nail and a residual sherd of medieval pottery.

A later ditch G60 was recorded in Trenches 17 and 19 (not illustrated), dating to the 19th century. It is shown on the earlier Ordnance Survey maps. To the north a pit [63] (not illustrated) was found in Trench 7. It was 1.13m across and 0.55m deep, with a steep sided, rounded profile. The primary fill contained post-medieval pottery.

FINDS AND ENVIRONMENTAL EVIDENCE

A moderately large assemblage of artefacts, primarily comprising pottery, ceramic building material, fired clay, registered finds, animal bone and environmental remains, was retrieved from excavated contexts. The more significant of the material assemblages are individually reported on below. Other minor assemblages such as worked flint (five pieces of debitage, all residual), slag (twenty-nine fragments, 1,559g), bulk metalwork (eighteen Roman nails and a post-medieval/modern hook), medieval and later pottery (fourteen sherds, 338g), glass (two fragments, 5g), clay tobacco pipe (one stem fragment, 1g) and shell (including eight oyster valves) are alluded to in the site narrative where pertinent. Full reports on all these are included in the project archive.

Stratigraphic period	Count	Weight (g)	ENV	EVE
1: Middle Iron Age	23	262	8	0.16
2: Late Iron Age	160	1274	101	1.09
3: Early Roman	2135	24437	1241	13.6
4: Late Roman	11	124	3	0.08
5: Medieval	4	183	4	-
Total	**2333**	**26280**	**1357**	**14.93**

TABLE 1: Quantification of prehistoric and Roman pottery by stratigraphic phase

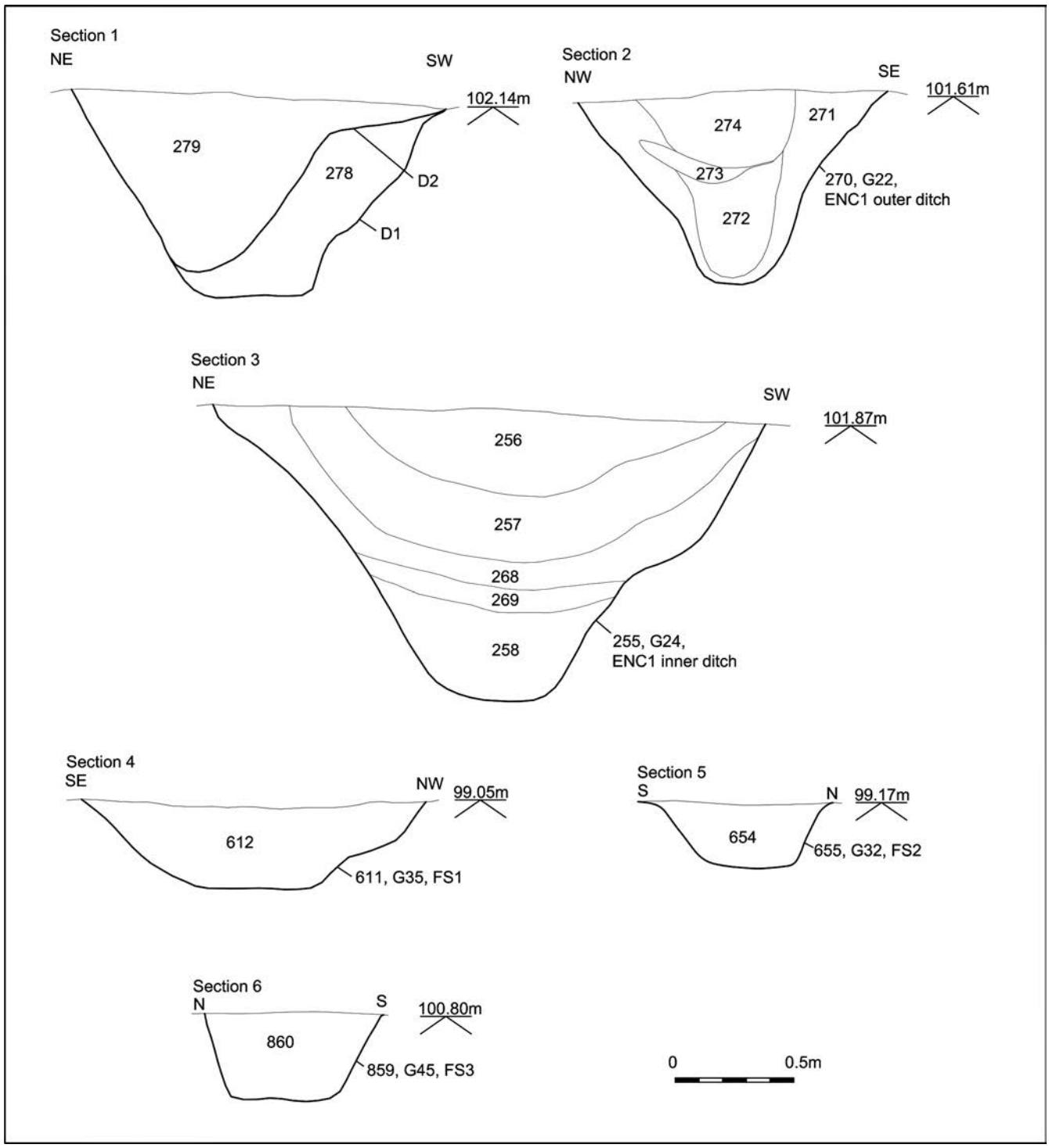

FIGURE 12: Selected sections

Prehistoric and Roman Pottery by Anna Doherty

The evaluation and excavation produced a fairly large combined assemblage of prehistoric and Roman pottery, quantified by stratigraphic period in Table 1. This includes a small amount of Middle Iron Age pottery stratified in features assigned to Period 1 (in addition to some redeposited material recovered from later features). Another modest assemblage belongs to the Late Iron Age (Period 2) but the vast majority of the pottery dates to the early post-Conquest period (Period 3). There appears to have been a prolonged hiatus in activity on site before the deposition of a few sherds of Late Roman pottery in Period 4.

Later prehistoric fabrics have been recorded using site-specific codes devised in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 2010). Only the fabric descriptions relating to well-stratified material have been reproduced in the following report, but a full fabric type-series can be found in the archive. Late Iron Age and Roman fabrics and forms have been recorded using the Essex regional

type-series (Biddulph *et al.* 2015, incorporating form codes from Hawkes and Hull 1947 and Going 1987).

Site-specific fabric definitions

QUAR1 A silty background matrix with sparse or moderate large quartz grains of 0.4–0.6mm. Rare linear organic inclusions or related voids may occur

QUAR2 A silty background matrix with sparse or moderate very fine quartz of up to 0.1mm. Rare linear organic inclusions or related voids may occur

Earlier residual pottery

Eleven sherds of residual flint-tempered pottery were recovered from the site. None of these had any diagnostic features but based on the moderately coarse to fine, non-sandy fabrics it seems likely that they represent residual Late Bronze Age/ Early Iron Age material. A similar scatter of residual sherds was noted in the adjacent excavation area at Bellrope Meadow (Stansbie *et al*. 2007, 86).

Period 1

The small Period 1 assemblage was found entirely in ditch G1, in Area 1. Most of the sherds are in a fine hand-made sandy fabric (QUAR2) with five sherds in a similar but coarser quartz-rich fabric (QUAR1). The only substantial form profile is a necked sinuous jar (Fig. 13.1); a similar vessel was also recovered from the directly intercutting Late Iron Age ditch, G2, and this probably represents a redeposited Middle Iron Age form (Fig. 13.2). This style of vessel, together with the absence of flint-tempered fabrics, suggests a fairly well-developed Middle Iron Age group, almost certainly dating to after *c.*300 BC.

On the other hand, a tiny rim sherd from ditch G1 features fingernail impressions along the rim (not illustrated). Another more substantial profile, also likely redeposited in ditch G2, features similar light-finger-tipping along the rim (Fig. 13.3). This decorative trait has its origins in the Early Iron Age and, although it still forms an element of Middle Iron Age assemblages, it appears to be primarily associated with *earlier* Middle Iron Age groups. Impressed rims certainly seem to become relatively less common over the course of Middle to Late Iron Age phases II–IV at Little Waltham, for example (Drury 1978, figs 42–53). Recent radiocarbon evidence from south Suffolk also appears to bear out the idea that this decorative style died out over the course of the Middle Iron Age. For example a group from Moorland Road, Ipswich which was predominantly composed of quartz-rich fabrics and which contained some impressed rim decoration, included a carbonised residue on a pottery sherd dated to 390–230 cal BC (Brudenell and Hogan 2014, fig. 76, no 1 and 3, table 4, SUERC-40150). Meanwhile at Coddenham, transitional Early/ Middle Iron Age groups contained much larger proportions of decorated rims but one diagnostic group which entirely lacked this decorative trait, featured a residue radiocarbon dated to 182–2 cal BC (Doherty in prep., SUERC-66770).

Period 2

The small Period 2 assemblage was mostly confined to features in Area 1 and the majority was recovered from ditch G2 and roundhouse B1. Table 2 shows that about a third of the assemblage is made up by Iron Age-style hand-made sandy fabrics QUAR1 and QUAR2, similar to those recorded in the preceding Middle Iron Age phase. As noted above, at least some of the vessels in hand-made sandy wares from Period 2, like sinuous jar Figure 13.2, and necked jar with finger-impressed decoration, Figure 13.3, seem likely to be redeposited; this may also be the case with many of the bodysherds, especially in ditch G2, which appears to have directly recut the Period 1 feature. Two sherds in flint-tempered fabrics almost certainly represent residual material from a much earlier period (see above).

The most significant fabric grouping is made up by typically 1st-century AD wheel-thrown black-surfaced wares, including variants with sandy (BSW1) and sparsely grog-tempered matrixes (BSW2), as well as similar oxidised variants (RED). Fabrics associated with storage jars (GROGC; STOR) are also represented. Two very small sherds in buff oxidised flagon fabrics (BUF) belong more certainly to the post-Conquest period, although it is possible that they are intrusive.

Relatively few diagnostic forms were recovered from Period 2 features. In addition to the Middle Iron Age style

Code	Description	Count	Count %	Weight (g)	Weight %	ENV	ENV %
FLIN	Flint-tempered wares	2	1.3	2	0.2	2	2.0
QUAR1	See site-specific description	47	29.4	329	25.8	25	24.8
QUAR2	See site-specific description	13	8.1	79	6.2	6	5.9
BSW1	Black-surfaced ware (sandy)	60	37.5	293	23.0	41	40.6
BSW2	Black-surfaced ware (with grog)	15	9.4	144	11.3	10	9.9
RED	Oxidised sandy wares	6	3.8	26	2.0	5	5.0
GROGC	Coarse grog-tempered wares	14	8.8	349	27.4	9	8.9
STOR	Storage jar fabrics	1	0.6	47	3.7	1	1.0
BUF	Unsourced buff wares	2	1.3	5	0.4	2	2.0
Total		**160**	**100.0**	**1274**	**100.0**	**101**	**100.0**

TABLE 2: Quantification of pottery fabrics in Period 2

jars mentioned above, there are several examples of hand-made jars, often with some form of cordon or corrugation (Figs 13.4–5) which clearly have Gallo-Belgic influences. A number of more partial examples belong more certainly to the 1st century AD, including a storage jar, several well-made wheel-thrown cordoned jars in the style of *Cam.* 221/G20 and a tiny fragment from a lid or platter (not illustrated).

Period 3

Although Period 3 has been divided into two stratigraphic phases, no meaningful variation could be discerned in the associated pottery assemblages and therefore the Period 3 material is addressed here as a whole. Fairly equal quantities of pottery were recovered in Areas 1 and 2 (and their adjacent evaluation trenches); however in the former, this was more widely distributed in different features with large groups from ditches G21, G23 and G24 and pits in group G29 whilst, in the latter, most of the pottery came from pond G9.

As shown in Table 3, the general fabric composition is not too dissimilar to that in the Period 2 features, but Roman fabrics now make up just over 10% of the assemblage, suggesting that all of the Period 3 material was deposited in the post-Conquest period. Small quantities of flint-tempered and Iron Age style hand-made sandy wares are almost certainly completely residual in these groups. As in the previous phase, wheel-thrown black-surfaced wares dominate the assemblage, accounting for nearly two thirds of it. There are fairly equal proportions of sandy and sparsely grog-tempered variants and a smaller number of similar oxidised fabrics. Interestingly, neither shell-tempered nor grog-tempered wares occurred in Period 2 but do appear in the Early Roman assemblage. The former account for a very small of the assemblage but the latter, including coarse variants associated with storage jars, make up about 15% of sherds. Imported Gallo-Belgic wares are also reasonably common for a lower status rural assemblage, making up over 1% of sherds; although, these are almost all North Gaulish white wares, with just one example of Terra Nigra represented.

A limited range of Roman fabrics are present, most of which are unsourced grey or oxidised wares or storage jar fabrics. As is typically the case in predominantly pre-Flavian assemblages from west Essex, only a small number of regionally-traded wares occur, all from Hadham, Colchester and the Verulamium region. South Gaulish samian represents the only non- Gallo-Belgic fine ware import although an amphora handle of flat to slightly bifid profile, possibly from a form related to Dressel 2–4, in an unidentified fabric, was also noted.

Key groups from pits [319] and [422] (G29, phase 3b) and from Pond G9 have been illustrated as they are fairly representative of the Period 3 assemblage as a whole. Table 4 shows that the Period 3 assemblage is fairly typical of Early Roman rural assemblages, being dominated by jars. Amongst these, there are a few examples of bead rim forms

Code	Description	Count	Count %	Weight (g)	Weight %	ENV	ENV %
FLIN	Residual flint-tempered wares	9	0.4	29	0.1%	9	0.7
QUAR1-2	Residual Iron Age sandy wares	74	3.5	759	2.6%	42	3.2
BSW1	Black-surfaced ware (sandy)	638	29.9	4862	19.9%	422	34.0
BSW2	Black-surfaced ware (with grog)	621	29.1	5842	23.9	371	29.9
RED	Oxidised sandy wares	111	5.2	764	3.1	53	4.3
ESH	Early shell-tempered wares	13	0.6	50	0.2	8	0.6
GROG	Grog-tempered wares	192	9.0	1529	6.3	94	7.6
GROGC	Coarse grog-tempered wares	154	7.2	7945	32.5	75	6.0
NGWF	North Gaulish fine white ware	29	1.4	417	1.7	6	0.5
TN	Terra Nigra	1	<0.1	20	0.1	1	0.1
AMISC	Unsourced amphora	1	<0.1	202	0.8	1	0.1
BUF	Unsourced buff wares	22	1.0	45	0.2	8	0.6
COLB	Colchester buff ware	40	1.9	111	0.5	13	1.0
GRF	Unsourced fine grey wares	23	1.1	82	0.3	13	1.0
GRS	Unsourced coarse grey wares	85	4.0	651	2.7	65	5.2
HAR	Hadham reduced ware	26	1.2	119	0.5	12	1.0
HAX	Hadham oxidised ware	3	0.1	18	0.1	3	0.2
MWSRF	Unsourced fine white-slipped red ware	5	0.2	15	0.1	2	0.2
MWSRS	Unsourced sandy white-slipped red ware	5	0.2	8	<0.1	3	0.2
SGSW	South Gaulish samian ware	22	1.0	79	0.3	15	1.2
STOR	Storage jar fabrics	46	2.2	770	3.2	15	1.2
VRW	Verulamium region white ware	15	0.7	120	0.5	10	0.8
Total		**2135**	**100.0**	**24437**	**100.0**	**1241**	**100.0**

TABLE 3: Quantification of pottery fabrics in Period 3

(*e.g.* Figs 14.20, 14.22); however, necked cordoned jars of Going's types G16-G20 are the most common types (*e.g.* Figs 13.6, 13.7, 13.11, 13.13, 13.16, 13.17, 134.23). There is also one example of a rilled (G21) jar (Fig. 13.14) and several storage jars (*e.g.* Fig. 13.8). Lids represent the only other coarse ware form in the assemblage (*e.g.* Fig. 13.19).

Form class	ENV	ENV %	EVE	EVE %
Platter	7	5.5	0.44	3.3
Bowl	4	3.1	0.22	1.7
Jar	96	75.0	10.59	80.6
Beaker	10	7.8	0.99	7.5
Flagon	8	6.3	0.76	5.8
Lid	3	2.3	0.14	1.1
Total	**128**	**100.0**	**13.14**	**100.0**

TABLE 4: Quantification of Period 3 pottery by form class

A reasonable quantity of table wares were recorded but no particular form predominates. The platters tend to be imitations of imported forms, *Cam.* 8 and 14 (*e.g.* Fig. 13.18) or more developed Roman examples with vestigial foot-rings (*e.g.* Figs 14.21 and 14.24). Beakers are the most common non-jar form and these are mostly related to butt-beakers (*e.g.* Figs 13.10 and 13.12), including some imported North Gaulish white ware examples. There are also globular forms (*e.g.* Fig. 14.25) and a fine jar/beaker with a carinated shoulder (Fig. 13.9). Although flagons are represented, there are no substantial illustratable profiles; however, it is probably significant that only collared rim J1/J2 forms were recorded and there are no examples of the common post-Boudican J3 form. Bowls are fairly poorly represented by very fragmentary sherds mostly from samian vessels or related imitation forms. A small rim sherd probably from a C12 style bowl in Hadham red ware (not illustrated), found in ditch G25, seems to represent the only element of the assemblage demonstrably produced in the Flavian period.

Period 4

The only diagnostic Late Roman pottery from the site came from a ditch in Area 2, G54, and another in evaluation Trench 42 outside the main excavation area, G63. A rimsherd from a necked jar in Alice Holt/Farnham ware, was found in ditch G54 and the base/lower wall of a flagon or beaker in Nene Valley colour-coated ware from ditch G63. The former also produced an undiagnostic grey ware sherd.

Chronological overview

The lack of flint-tempering in the early pottery from the Period 1 ditch, G1, coupled with the presence of some broadly early decorative traits, probably suggests that it dates to somewhere around the middle part of the Middle Iron Age (based on the regional dating evidence discussed above, perhaps in the 3rd–earlier 2nd centuries BC). The dating of features from Period 2, including ditch G2, which appears to directly recut G1, is more ambiguous. These features all contain fairly significant levels of Iron Age tradition hand-made sandy fabrics alongside Gallo-Belgic influenced forms. Some of the latter appear crudely made and could be relatively early within the Late Iron Age so, if all of this material was considered well-stratified and contemporary, there would be a case for suggesting that these groups were deposited in the transitional Middle/Late Iron Age period, perhaps around the first half of the 1st century BC; however, it seems more likely that these features contain material of mixed date. For example, one of the most diagnostic rim sherds recovered from ditch G2 featured finger-tipping along the rim; a trait which is usually associated with earlier rather than later Middle Iron Age assemblages, suggesting it might have been directly redeposited from the earlier ditch, G1.

The other element that makes it seem unlikely that the Period 2 assemblage belongs to the beginning of the Late Iron Age is the significant proportion of well-fired wheel-thrown sandy black-surfaced wares. These fabrics are very characteristic of the 1st century AD and were often associated with jar forms, like *Cam.* 221 and G3, which are wholly typical of the decades on either side of the Roman Conquest. On balance then, it seems likely that the Period 1 ditch, G1, was open for an extended period of time before the Period 2 activity occurred, including the re-cutting of the original ditch as G2 and the construction of roundhouses B1 and B2. The Period 2 features appear to have accumulated material of fairly mixed date and it is possible that some or all of these features were in place in the 1st century BC but their disuse and abandonment appears to date to the early to mid-1st century AD.

There was a huge increase in the amount of pottery deposited in the Early Roman period, in particular during Phases 2–3a in pond G9 and in linear features assigned to stratigraphic Phase 3b. During the course of the Early Roman period a progressive decline in the levels of tempered wares and a corresponding increase in Roman fabrics is typically seen, a pattern which is usually apparent even over the course of a few decades; however, it was not the case when comparing assemblages assigned to Phases 3a–3b. In fact all of the phases produced assemblages of very similar composition and that from Phase 3a included the highest proportion of post-conquest material. This could suggest that the successive phases of reorganisation during Period 3 all occurred over a very short period of time. Alternatively, it may be the case that much of the material from later sub-phases was redeposited midden material, derived from settlement activity which may have occurred a few decades earlier. Certainly, the Phase 3a assemblage, mostly recovered from pond G9, was much more fragmented than that found in features assigned to Phase 3b (see below).

Everything in the assemblage is in keeping with a pre-Flavian or very early Flavian date. Only one sherd out of the *c.*2,000 recorded from Period 3 had a *terminus post quem* as late as AD 70 (a partial rim probably from a C12 samian style bowl). This strongly suggests that the peak in settlement activity was the immediate post-Conquest period and that this activity had nearly ceased by *c.*AD 70–80. A similar pattern was noted in the assemblage from non-funerary features in the adjacent excavation at Bellway Meadow, some of it excavated from parts of the same ditches uncovered on the current site, although there, two urned cremations were deposited in the 2nd and 3rd centuries respectively (Biddulph 2007, 77).

Given the very small quantities of Late Roman pottery recovered from features belonging to Period 4 at the current site, it seems unlikely that this phase of activity included any intensive settlement activity.

Patterns of deposition

Quantification by EVE indicates that the current Period 3 assemblage is more than ten times the size of that recovered from settlement features in the adjacent Bellrope Meadow excavation area to west (Biddulph 2007, Table 4, 77). This suggests that, although most of the excavated features from the current site, appear to relate to agricultural activity, a settlement must lie somewhere in the immediate vicinity.

By far the largest deposit of pottery (6.6kg) came from the shallow pond feature, G9. This material is fairly fragmented, suggesting that it is likely to have undergone intermediate stages of redeposition but the quantities involved seem to suggest deliberate dumping of midden waste. Fairly large groups of pottery, in notably better condition with larger average sherd weights, were also noted in pits and ditches in Area 1, (e.g. G29, G24, G23 and G21), especially in features close to the northern edge of excavation and in evaluation trenches in the area immediately to the north (which has been preserved *in situ*). These included some examples of fragmented but partially-complete vessels, although these were always mixed in with large quantities of other broken sherds. This suggests that they probably still represent refuse material but may indicate fairly direct disposal with few intermediate stages of redeposition. It is interesting to note, however, that two of the more complete vessels (Figs 13.7 and 13.11) both feature evidence of perforations, possibly as a result of repair, whilst the former had also been reused as a strainer. There is some evidence that the deposition of semi-complete strainers or other holed vessels within refuse deposits is a recurrent pattern in the region (*e.g.* Hawkins and Doherty forthcoming; Martin and Doherty 2016a and b) which may indicate that that they were treated differently to other types of vessels.

Conclusion

Only small quantities of pottery were noted from Middle and Late Iron Age features. However, the relatively large assemblage from the Early Roman period indicates that, despite the lack of obvious domestic structures, a settlement must have been located very close by, most likely immediately to north and east of the current excavations. The pottery is fairly typical of lower status rural assemblages of the immediate post-Conquest period, being dominated by jars and coarse ware fabrics, with a more limited range of regionally-traded or imported table wares.

Illustration Catalogue (Figs 13 and 14)

Period 1, open area OA1, ditch G1

1. Sinuous necked jar (QUAR1). Seg. [265], fill [267]

Period 2, open area OA2, ditch G2

2. Sinuous necked jar (QUAR1). Seg. [260], fill [262]
3. Shouldered jar with light finger-tipping on flattened rim top (QUAR1). Seg. [263], fill [264]
4. Handmade beaded rim jar with shoulder cordon (BSW2). Seg. [049], fill [051]

Period 2, open area OA2, ditch G5

5. Handmade necked jar similar to *Cam.* 256 (BSW2). Seg. [041], fill [043]

Phase 3b, enclosure ENC1, interior pits G29

6. Necked cordoned jar with shoulder carination (G18 2.1; BSW1). Pit [317], fill [318]
7. Necked cordoned jar with shoulder carination (G18 2.1; BSW1), with multiple post-firing perforations in the base indicating reuse as a strainer and a single post-firing perforation below the rim. Pit [317], fill [321]
8. Storage jar with stabbed decoration on the shoulder (G42; RED). Pit [317], fill [321]
9. Fine jar/beaker with carinated shoulder (G18/H10; GRF). Pit [317], fill [321]
10. Imported butt-beaker (Cam. 112; NGWF). Pit [317], fill [321]
11. Necked cordoned jar with post-firing perforation below rim (G20; BSW2). Pit [422], fill [424]
12. Plain butt-beaker-related form (H7; RED). Pit [422], fill [424]

Phase 3a, open area OA4, pond G9

13. Necked jar with wide shoulder cordon (G16 2.1; BSW1). Seg. [126], fill [129]
14. Necked jar with rilled shoulder (G21; GROG). Seg. [152], fill [153]
15. Bead rim jar (G1 1.1; GROG). Seg. [769], fill [771]
16. Necked jar (G19 2.1; GRS). Seg. [769], fill [771]
17. Necked jar (G20; BSW2). Seg. [769], fill [771]
18. Gallo-Belgic style platter (*Cam.* 28; BSW2). Seg. [769], fill [771]
19. Lid with beaded rim (K; GROG). Seg. [769], fill [771]
20. Jar with out-turned beaded rim (G3; BSW2). Seg. [832], fill [833]
21. Platter angular out-turned rim with vestigial foot-ring base (A2; BSW1). Seg. [832], fill [833]
22. Jar with out-turned beaded rim (G3; BSW1). Seg. [798], fill [800]
23. Necked shouldered jar (G20; BSW2). Seg. [798], fill [800]
24. Platter with angular bead rim (A2 3; BSW2). Seg. [798], fill [800]
25. Globular beaker with corrugated profile (H1; GRF). Seg. [798], fill [800]

Ceramic Building Materials by Susan Pringle

A total of 124 fragments of Roman, medieval and post-medieval ceramic building materials, weighing 5.053kg, was retrieved from forty contexts; none of which produced more than eleven fragments. The assemblage consisted of Roman and, predominantly, medieval or early post-medieval roof tile and brick. The quantities of each category of material are set out in Table 5. The condition material was generally abraded, with an average sherd weight of *c*.39g. The least-abraded tile came from the fills of post-medieval ditch segments [921] and [938] (both G57).

Material	Count	Weight (kg)
Medieval/early post-medieval roof tile	104	4.383
Roman brick and tile	4	0.24
Unidentified tile	11	0.041
Total	**119**	**4.664**

TABLE 5: Ceramic building material summary quantification

Roman

The Roman assemblage consisted of only four fragments of tile with a total weight of 240g from Area 2, being retrieved from Phase 3b ditches G21 (in Trench 8) and G32, but also

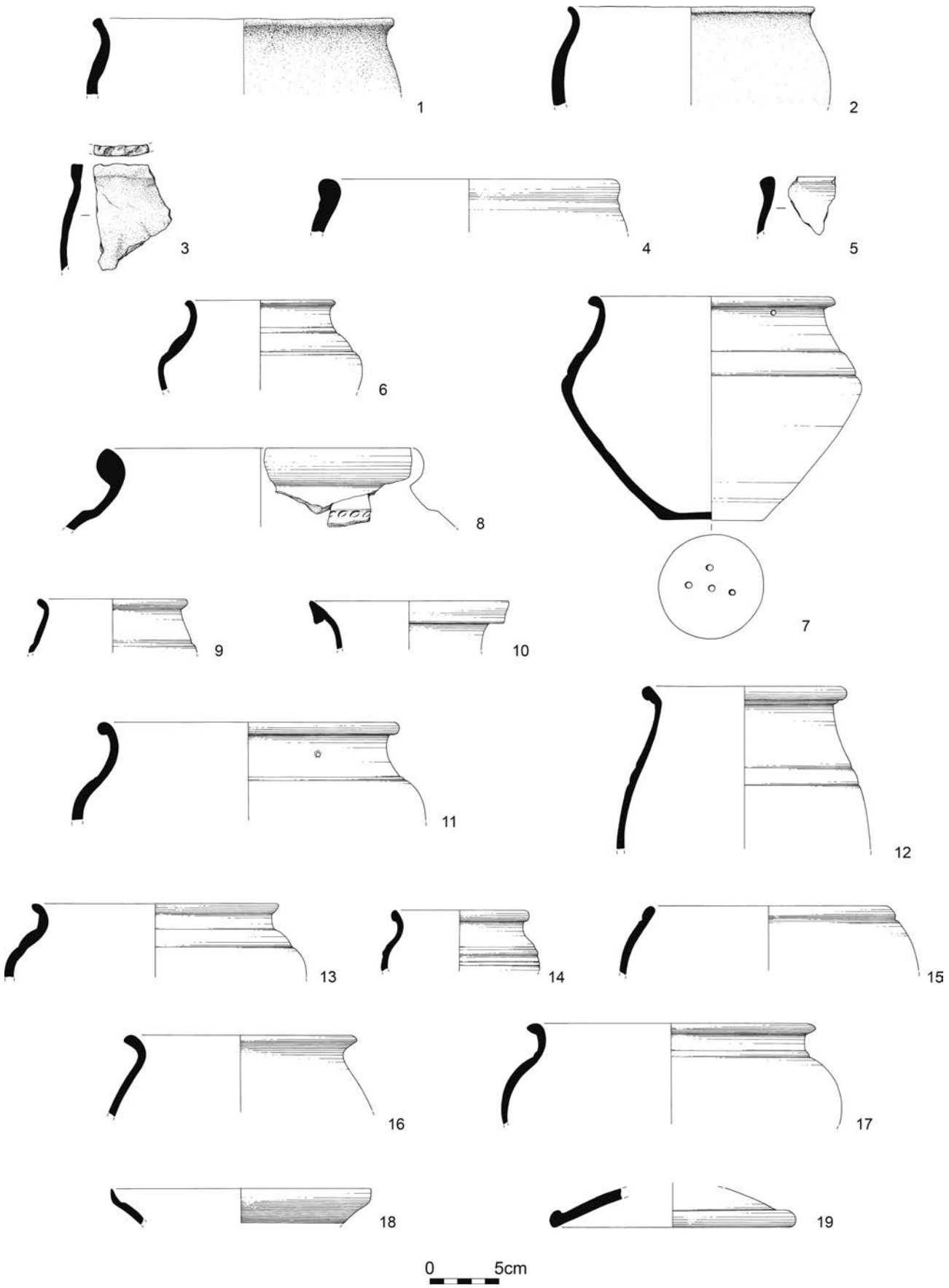

FIGURE 13: Iron Age and Roman pottery, Nos 1–19

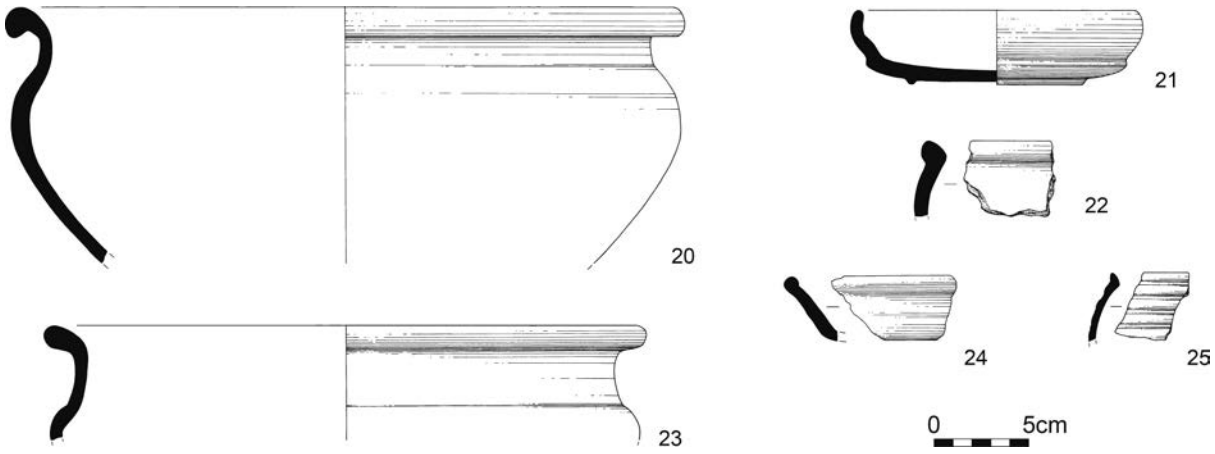

FIGURE 14: Iron Age and Roman pottery, Nos 20–25

occurring residually in post-medieval ditch G56 and quarry pit G59. All were small and abraded, but probably represented a tegula and brick flakes. The fragments from G21 and G32 were reduced. Three of the identifiably Roman tile fragments were in a fine orange fabric with common inclusions of poorly sorted red iron-rich clay or siltstone and moderate inclusions of very coarse flint and rounded quartzite (fabric R1). This fabric may be the same as Poole's fabric B1 at the adjacent Bellrope Meadow (2007, 78). The fourth fragment, probably also of Roman date, was in a finer micaceous orange fabric with very fine background quartz, moderate fine black iron oxides and sparse medium to coarse quartz (fabric R2).

Medieval/early post-medieval

The post-Roman roof tile assemblage consisted of 104 identifiable fragments with a total weight of 4.178kg (average sherd weight 25g). With such a degree of abrasion, there was very little typological evidence to assist with dating. An orange micaceous fabric with moderate to common medium to coarse quartz, fabric T1, accounted for *c*.70%, by count, of the roof-tile assemblage. Four other fabrics, probably all textural variants of fabric T1, were identified. Parts of four peg or nail holes were noted; circular in shape on two tiles and polygonal on another. The fourth was incomplete and of indeterminate shape. Two ridge tiles were identified, both from Area 2. One was retrieved from G59 quarry segment [897]. The other, from the fill of G57 ditch segment [921] was unusual in that it had a small circular hole, *c*.7mm in diameter, placed near its lower edge at approximately 80mm from end of the tile. Due to the abraded condition of the material, ridge tiles may have been under-identified in the assemblage.

The absence of diagnostic post-medieval brick suggests that most of the post-Roman assemblage dated from *c*.1200 to 1500 AD. This medieval assemblage consisted mainly of small abraded roof tile fragments, probably peg and ridge tiles. The majority of the material was from Area 2, particularly from G59 quarry pit segment [897] and the fills of G56 ditch segments [923] and [939]. The fills of ditch G55 were also relatively tile-rich. None of the building materials were distinctively post-medieval which suggests that the tile in the deposits was essentially derived from medieval buildings.

Registered Finds by Elke Raemen and Trista Clifford

A relatively small number of registered finds were recovered. These mostly comprise personal items but also a few tools and artefacts associated with textile production, predominantly of metalwork. The most significant objects relating to main site Periods 2 and 3 are described here, ordered by relevant function category (no registered finds were recovered from later Roman Period 4 features). Later, medieval and post-medieval (Periods 5 and 6), objects are fully described in the archive.

Dress accessories

Brooch

A single Colchester brooch (Hull T90; Mackreth's type C.2e) was recovered from fill [407] of enclosure ditch segment [405] (G21) in Area 1. The brooch is large with a wide, undecorated flattish bow which tapers to a circular section and pointed terminal; the rear hook which holds the chord is fairly wide with a club-shaped terminal. The side wings are incomplete, abraded almost to points. The head is fairly sharply angled suggesting that this brooch appears fairly early within the Colchester series, having affinities with the Simple Gallic brooches which first appear during the latter years of the 1st century BC in Britain (Mackreth 2011, 36–37). A date of the first half of the 1st century AD is probable; and possibly the first quarter.

RF<22>. Colchester bow brooch. Incomplete; poor condition with much of the original surface missing. One half of spring, chord, pin and most of the catch plate missing. Spring of four turns on left hand side; L72.8mm. 1st half of 1st century AD. Fill [407], seg. [405], ditch G21, ENC1. Phase 3b (Fig. 15.1).

Armlet

The most complete find comprises a copper-alloy wire armlet with twisted expanding clasp. The armlet is open, perhaps suggesting a casual loss. This type of armlet is often dated to the 3rd to 4th century, based on a dated example found at Colchester (Crummy 1983, 37). Earlier examples are however known, e.g. at Winchester where some copper-alloy examples

date as early as the mid 2nd century, whereas iron wire bracelets with the same type of clasp were found in late 1st- to early 2nd-century contexts (Rees *et. al.* 2008, 55).

RF<19>. Copper alloy wire armlet. Incomplete. Twisted wire clasps of four and nine turns. Diameter 74.5mm; diameter of wire 12.1mm. Circular section which tapers to pointed ends. Fill [447], pit [448], G27. Phase 3b (Fig. 15.2).

Strap fastener

Of particular interest is the copper-alloy strap fastener found in Period 2–3a pond G9 (seg. [769], fill [771]). It consists of a loop with circular stud attached to the ring by means of a short slotted neck. The hoop narrows and is distorted and broken, presumable through wear, opposite the stud. Similar ring fasteners of the same size are known both through the Portable Antiquities Scheme and from excavated contexts (Minter 2004). The slot beneath the stud, together with the narrowing of the hoop, is reminiscent of an example from Witnesham in Suffolk (Minter 2004, 13, fig. 1, E). A circular recess in the centre of the stud may have held enamel decoration; traces of a glassy substance are visible under magnification.

The object appears to be a variation on a more common type which has a solid neck joining the stud to the hoop (Minter 2004, fig. 1). The function of these objects has been much discussed. They are generally thought to have been utilised as belt or harness strap fasteners and have in the past been found in association with swords (*e.g.* Brisley Farm, Ashford (Stead 2013, 162) which has a similar stud with enamel inlay) which has led to the theory that they may represent baldric rings. They appear in contexts associated with material dating from the mid 2nd century BC to the mid 1st century following the Conquest, and there are strong indications that they have a military association (Minter 2004).

Excavated examples with solid necks are recorded from Camerton (Jackson 1990), Wanborough (Hooley 2001), Ashford (Stead 2013) Gloucestershire and Hampshire (Stead 2006), while metal-detected examples are more widespread from the Isle of Wight to Northern England.

RF<14>. Copper alloy strap fastener. Incomplete; surface abraded. Circular stud with circular void (?for enamel inlay) in the surface attached at 90 degrees to a hoop via a slotted neck. The hoop is D-shaped in section, the width narrowing opposite the stud due to wear, probably from a strap. Broken ends worn and distorted. Traces of paste or glassy substance within the circular void. Diameter 31.5mm; diameter of stud 11mm; Diameter of void 5mm; H7.25mm. Length of slot 9mm. Fill [771], pond [769], G9. Phase 3a (Fig. 15.3).

Textile production

Three objects associated with textile production were found unstratified during metal detection, including an iron needle. Iron sewing needles are well attested from the Roman period; however, as the fragment is unstratified it cannot be dated with any certainty. Two unstratified spindle whorls were also recovered. RF <11> (Fig. 15.5) comprises a hard chalk hemispherical spindle whorl with two decorative concentric incisions beneath the base. The object is well finished and, although unstratified, is of likely Late Iron Age or Roman date. A plain, clay biconical whorl (RF <17>) was also found (Fig. 15.6). The object is complete and again would fit well within a Late Iron Age or Roman date range, having similarities with examples from nearby Stansted (Major 2004, 169).

RF<5>. Iron needle. Incomplete. Broken through eye and tip missing. Sub-square section L53.5mm Unstratified (Fig. 15.4)

RF<11>. Chalk spindle whorl. Complete. Conical with central perforation, decorated with a pair of concentric incised lines on the base. D36.2mm, H19.6mm. D. of perforation at top 7.8mm, at base 9.9mm. Weight 32g. Unstratified (Fig. 15.5)

RF<17>. Fired clay spindle whorl. Complete. Biconical with central perforation, undecorated. Fabric is moderately quartz tempered D43mm, H22.8mm. D. of perforation at top 6.7mm, at base 7mm. Unstratified (Fig 15.6)

Household Equipment

An iron knife or razor blade fragment with partially surviving rivet hole was recovered from Phase 3b pit [412] (fill [411] G28); the fragment is likely to be either of Manning's type 1b or 7 (Manning 1985, 109). It is not illustrated.

Tools

A small iron fragment (RF <15>; Phase 3c pond [798], fill [800] G9) is the earliest object in this category and may represent part of the tang of a socketed tool. However, it is too abraded to be closely identified (not illustrated). An iron adze (RF <20>, Fig. 15.7) was found in two halves in Phase 3b ditch [486] (fill [484], G26). The breaks are abraded, suggesting they had broken in antiquity. In addition, an iron rod fragment with looped terminal (RF <23>, Phase 3b pit fill [295]) possibly represents the tang from a tool or latch lifter.

RF<20>. Iron adze. Complete in two halves (broken in antiquity). Large oval socket with squared butt on the back of the head. Blade complete with splayed cutting edge. L196mm, H28mm, W52mm. Fill [484], ditch [486], G26. Phase 3b (Fig. 15.7).

RF<23>. Iron?handle. Incomplete. Circular sectioned rod, bent at the centre, with looped terminal. L100+mm Head D11mm, Rod D6mm. Fill [295], G30. Phase 3b (Fig. 15.8).

Coins

Five Roman coins were recovered, none of which could be assigned to ruler due to poor condition. All are highly corroded and/or worn, with little or no surface detail remaining. A copper-alloy dupondius or as of 1st- to 3rd-century date was recovered unstratified. A further three asses or dupondii came from the fills of Phase 3b pit [791] (G42). A 4th-century nummus was also recovered, from the upper fill of Period 6 quarry pit [897] (G59) in which it was clearly residual.

Fired Clay by Elke Raemen

A medium-sized assemblage comprising 334 pieces of fired clay weighing 2,064g was recovered from 56 different contexts. The majority derives from deposits provisionally dated to the Early Roman period, followed by Late Iron Age contexts. Most contexts contained ten or less fragments. Notable exceptions are the eighty-two pieces (304g) from pit fill [321] (G78) and sixty-three fragments (347g) from ditch fill [771] (G9). Both assemblages are likely to represent structural daub.

Fabrics

A total of ten different fabrics were established with the aid of a x10 binocular microscope (Table 6). The majority comprises variations on silty fabrics, either calcareous themselves or with

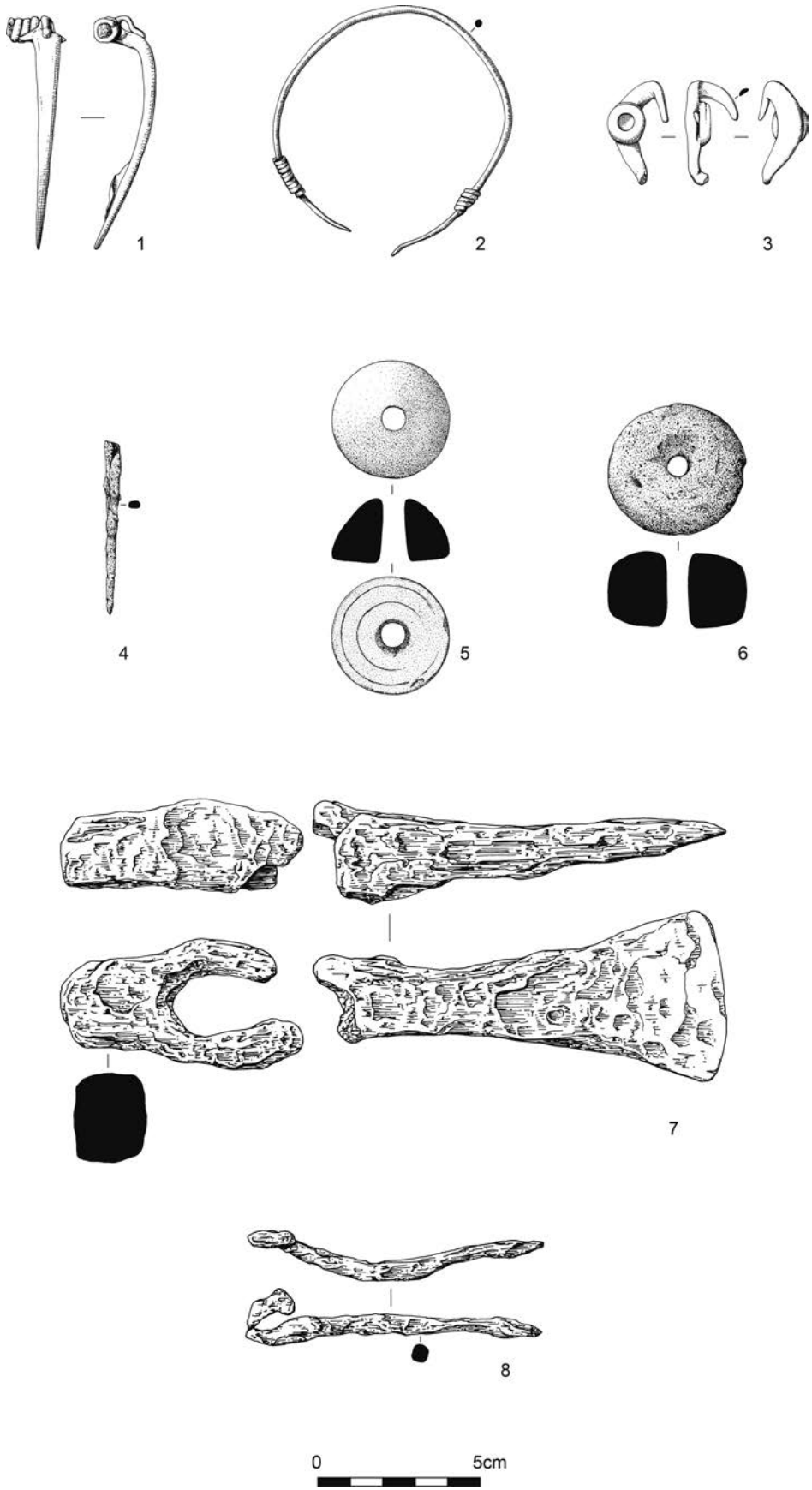

FIGURE 15: Registered finds, Nos 1–8

Code	Fabric description
F1a	Orange fabric with sparse fine quartz inclusions
F1b	As F1a, with calcareous swirls (marbled)
F1c	As F1a, with rare to common chalk to 2mm; some with rare angular flint to 11mm
F2a	Orange fabric with pink patches and calcareous streaks, voids (some burnt out chalk) and chalk inclusions to 3mm. Rare iron oxides to 1mm
F2b	As F2a, with moderate coarse quartz
F3a	Silty pale pink clay with moderate chalk to 5mm
F3b	As F3a, with common medium quartz
F4	Calcareous very pale pink to red fabric with cream steaks/marbling. Common very coarse chalk inclusions and moderate chalk to 4mm
F5	Orange fabric with common medium to coarse quartz and rare ?crushed flint
F6	Silty orange fabric with common organic temper

TABLE 6: Fired clay fabric descriptions

calcareous inclusions. These are most consistent with Poole's fabric E recorded within the fired clay assemblage from the adjacent Belrope Meadow excavation (Poole 2007). Raw materials are likely to have been locally sourced. F2a was the most commonly encountered fabric (154 pieces), followed by fabric 4 (eighty-eight fragments).

Forms

The majority of fragments (235 fragments) are amorphous, with a further eighty pieces retaining a single flat or slightly rounded surface. Wattle impressions (diam 11–15mm) were noted on a further nine pieces and a fragment from pit [317] (Early Roman fill [321], G78) contains a possible, partial rounded stake imprint. All of these are likely to represent structural daub, such as for oven superstructures or small buildings. Corner fragments could represent daub wall corners; however, some may be crude slab or 'block' fragments. A well-finished example from pond [769] (Late Iron Age fill [771], G9) almost certainly represents a block of a type found increasingly often and similar to those found at Hill Farm in Tendring (Raemen 2016), the Orsett 'Cock' Enclosure (Major 1998, 107) and Elms Farm, Heybridge (Tyrrell 2015). Their function is as yet unclear. The example from Thaxted consists of a corner fragment only (not illustrated). A few pieces display two parallel flat sides. All are undiagnostic and could represent clay lining or slab fragments, for example.

Animal bone by Hayley Forsyth-Magee

A moderately-sized animal bone assemblage was collected from the site, comprising 5,250 fragments of faunal remains, of which 1,848 were identifiable to species. The majority of this assemblage derives from Late Iron Age and Early Roman pit and ditch fills. The faunal bone was retrieved through hand-collection and from bulk soil samples. Analysis has aimed to identify animal husbandry practices, focusing on the main domesticates from the Iron Age and Roman periods. The post-medieval Period 6 produced an insignificant quantity of animal bone and is not considered further.

The faunal assemblage has been recorded according to the part and proportion of the bone remaining, with reference to Serjeantson (1996). Mammalian metrical data has been taken in accordance with von den Driesch (1976). The total number of unidentifiable fragments from each context has been noted, as well as evidence of butchery, burning, pathology and gnawing.

Assemblage

The assemblage is in a poor state of preservation, with signs of surface weathering. The majority of bones are fragmented, although a small number of complete specimens have been recovered. Of the 5,250 fragments recovered, 1,848 are identifiable to taxa (Table 7), with the largest assemblage deriving from the Early Roman Period 3.

Species representation

A limited range of taxa were identified, with cattle and sheep/goat dominating the assemblage; no definite goat bones were recovered (Table 8).

The majority of the faunal assemblage was recovered from the forty-three environmental samples, which produced 3,429 bone fragments, of which only 621 were identified to taxa. There is an underrepresentation of smaller species including mammals, birds and anurans, most likely due to poor levels of preservation and taphonomic processes. There is also a complete absence of fish, despite the fact that the upper reaches of the River Chelmer lie *c*.0.7km west of the site and could have been exploited for freshwater species.

The NISP (Number of Identifiable Specimen) counts show that of the three main domesticate species, cattle and sheep/

Period	Fragment count	NISP	Preservation		
			Good	Moderate	Poor
1. Middle Iron Age	2	2	-	100%	-
2. Late Iron Age	579	298	5%	30%	65%
3. Early Roman	4668	1547	1%	19%	80%
4. Late Roman	1	1	-	-	100%
Total	**5250**	**1848**			

TABLE 7: Animal bone quantification, NISP (Number of Identifiable Specimens) counts and percentage preservation based on NISP, by period

Taxa	Period 1	Period 2	Period 3	Period 4
Cattle	1	30	67	
Sheep/goat		22	29	
Sheep			2	
Pig		4	5	
Horse			29	
Red Deer		2	1	
Deer Red?		2		
Deer Roe?			1	
Deer			2	
Dog			17	
Large Mammal	1	83	1002	1
Medium Mammal		145	349	
Small Mammal		5	13	
Bird			6	
Anuran		5	24	
Total	**2**	**298**	**1547**	**1**

TABLE 8: Animal bone NISP (Number of Identified Specimens), by Period

goat are the most abundant in the Late Iron Age and Early Roman periods (Table 8). It is common for the Late Iron Age and Early Roman periods to be dominated by cattle and sheep/goat (Maltby 1996), with the numbers of cattle increasing in the Roman period (Luff 1993). This species representation is similar to that of the Rayne Bypass (Smoothy 1989, 23) with cattle and sheep/goat being the most abundant species in the Roman periods, along with the presence of horse, dog and deer. The presence of horse and dog remains in the Early Roman period suggests a change in animal husbandry practices and possibly the function of the site. Wild taxa are equally represented in low numbers and the increase in small mammal, bird and anuran remains in the Early Roman period is most likely related to the number of bulk soil samples that were collected.

The MNI (Minimum Number of Individuals) counts, calculated according to the frequency of elements and taking sides into consideration, show that cattle and sheep/goat were more abundant in the Early Roman period whilst pig numbers remained the same (Table 9). These figures support the NISP (Number of Identified Specimens) counts in Table 8 that show an increase in the cattle and sheep/goat remains in the Early Roman period.

Taxa	MNI	
	Period 2	Period 3
Cattle	1	3
Sheep/Goat	1	2
Pig	1	1

TABLE 9: MNI (Minimum Number of Individual) counts

Element representation

Cattle from the Iron Age periods are represented by non-meat bearing bones suggesting that these animals were slaughtered on-site. Conversely, an absence of meat-bearing bones suggests that consumption was taking place elsewhere. An increase of non-meat bearing bones is evident in the cattle remains from the Roman periods, also seen at Great Dunmow and Kelvedon (Luff 1988a; Luff 1988b) (Table 10) but there is also an increase in meat-bearing bones. This suggests that both primary butchery and consumption was taking place on site during the Roman periods, with associated refuse deposited indiscriminately on-site. Sheep/goat remains comprised of both meat and non-meat bearing bones in the Iron Age and Roman periods, suggesting waste from both butchery and consumption were also discarded on site. Pig remains are represented in the Iron Age and Early Roman periods by non-meat bearing bones which suggests that although primary butchery occurred on site, dressed carcasses and processed joints were consumed elsewhere.

Age at death

The age-at-death of the three main domesticates has been calculated with reference to epiphyseal fusion. Tooth eruption and wear was recorded where possible with reference to Grant (1982). For ease of comparison the broad age categories of O'Connor (1989) have been used, in line with the methods applied for Elms Farm, Heybridge (Johnstone and Albarella 2015). The epiphyseal fusion age categories are based on data presented by Silver (1969).

The number of recordable mandibles recovered were limited, and have been listed (Table 11). Although the data is minimal the cattle mandibles present in the Early Roman period could suggest a mixed economy of traction and beef. The presence of a mature-aged sheep mandible implies that some of the flock were exploited for secondary products. Younger animals may well have been present on site but poor preservation levels and taphonomic processes will have affected the survivability and retention of these remains.

A minimal amount of epiphyseal fusion data was available for analysis (Table 12). Poor preservation levels and the fragility of epiphyseal plates has significantly reduced the number of bones in which fusion rates could be recorded, which can cause discrepancies in results (Maltby 1979). The faunal assemblages retrieved from the Middle Iron Age and Late Roman periods have not been included due to the limited data-set; for this same reason the pig remains from the Late Iron Age and Early Roman periods have also been excluded. Although the data is limited, cattle epiphyseal fusion suggests that an adult population (Table 7) was exploited in the Early Roman period, indicating that these animal may have been utilised for traction, with beef being a secondary product, similar to the faunal remains at Elms Farm, Heybridge (Johnstone and Albarella 2015). The lack of young animals could suggest that cattle were not bred on site, and nor were they exploited for dairy or that preservation levels were too poor for these remains to survive. Epiphyseal fusion data for the sheep/goat assemblage also supports the suggestion

Element	Iron Age (Middle & Late)			Roman (Early & Late)		
	Cattle	Sheep/Goat	Pig	Cattle	Sheep/Goat	Pig
Mandible	4	1	1	3	3	
Horn Core	1			2		
Atlas				1		
Axis						
Scapula						
Humerus		1		2	1	
Radius		1		4	1	
Ulna				2		
Metacarpal				1	1	
Pelvis		1			1	
Femur						
Tibia		1		1	2	
Metatarsal	2			3	1	
Astragalus				1		
Calcaneum				4		
1st Phalanx	1	2		4	1	
2nd Phalanx				2		1
3rd Phalanx		1		1		

TABLE 10: MNE (Minimum Number of Elements) counts for the three main domesticates

Period	Taxa	MWS
Middle Iron Age	Cattle	26
Early Roman	Cattle	26
	Cattle	45
	Sheep	51

TABLE 11: MWS (Mandibular Wear Stage) score of cattle and sheep, recorded according to Grant (1982)

that an adult population was exploited, particularly in the Early Roman period, for secondary products such as wool, breeding and diary, with meat being a secondary concern. Young animals were also utilised as shown by the presence of an unfused bone in the middle fusing bracket, suggesting that some sheep/goat were exploited for meat. Two neonatal sheep/goat-sized medium mammal fragments suggests that the flock may also have been exploited for valuable breeding and dairy resources. Although the pig remains were limited in number they would have primarily been raised for meat and culled when they reached their optimum weight.

Cattle		Early Fusing	Middle Fusing	Late Fusing
Late Iron Age	Fused	1		
	Unfused			
	% Fused	100%		
Early Roman	Fused	11	1	1
	Unfused			2
	% Fused	100%	100%	33%
Sheep/goat		**Early Fusing**	**Middle Fusing**	**Late Fusing**
Late Iron Age	Fused	4		
	Unfused		1	
	% Fused	100%	100%	
Early Roman	Fused		2	1
	Unfused		1	
	% Fused		66%	100%

TABLE 12: Epiphyseal fusion data for Cattle and Sheep/goat from Late Iron Age and Early Roman periods

Gnawing
Only four bones from the Late Iron Age displayed evidence of canid gnawing consisting of cattle, large and medium mammal bones. Canine gnawing was also recorded on four bones from the Early Roman period and included horse, as well as cattle and large mammal bones. From these remains three large mammal bones also exhibited signs of butchery. Rodent gnawing was also observed in one bone from the Early Roman period, suggesting that burial disposal of waste may not have occurred rapidly on site. The presence of canine-gnawed bones suggests that dogs may have scavenged domestic waste scraps from rubbish deposits, or were fed directly (Johnstone and Albarella 2015).

Butchery
The presence of butchery marks were relatively low, affecting just 1–1.5% of the Late Iron Age assemblage and 1% of the Early Roman assemblage. The data is too limited to analyse changes over time, though general observations can be made. For Late Iron Age cattle the butchery marks observed included chop marks around the mandibular hinge associated with primary butchery and carcass dismemberment. There was also evidence of smashing across the shafts of metatarsals suggestive of marrow extraction. The Early Roman period produced chop marks across the shafts of a cattle radius and ulna; these marks are associated with carcass dressing and portioning. Smashing for possible marrow extraction was observed in several cattle bones including radii, tibia and metatarsal. A single horse radius exhibited a possible chop mark to the distal aspect; obscured by gnawing, it is possible that the animal was dismembered for ease of disposal, with the meat fed to dogs.

Pathology
Of the four specimens which displayed signs of pathology, two have been identified as cattle 1st phalanges with evidence of joint disease from a Late Iron Age and an Early Roman context. This suggests that the animals may have been over-exploited for traction. Periosteal reactions were observed in two dog tibias from the Early Roman period; the cause is unknown.

Conclusions
This assemblage provides further evidence with regard to existing knowledge of Late Iron Age and Early Roman diet and animal husbandry practices. Of the three main domesticates cattle and sheep/goat were favoured for secondary resources as well as meat, with minimal diet supplementation from wild taxa.

The dominance of the Iron Age cattle assemblage by non-meat bearing elements suggests that although primary butchery was undertaken on site, consumption of beef occurred elsewhere. In the Roman period, meat and non-meat bearing bones are present, which suggests that the importance of cattle increased during this time (Luff 1988a; Luff 1988b). Age at death data implies that an older cattle population was exploited for secondary resources such as traction, with meat being a secondary product as seen on a larger scale at Elms Farm, Heybridge (Johnstone and Albarella 2015), supported by the presence of butchery marks. The small sheep/goat assemblage suggests that young animals were exploited in the Iron Age period for meat and secondary products such as wool, breeding and dairy. Older animals present in the Roman periods suggests that meat became more of a secondary concern.

Charred Plant Remains by Mariangela Vitolo

Fifty-three bulk soil samples were collected during the evaluation and excavation phases of fieldwork from features including ditches, gullies and pits throughout the occupation of the site. The soil samples, ranging in volume between ten and forty litres, were processed by flotation and the retained flots microscopically scanned to record their contents. Identifications of macrobotanical remains have been made through comparison with published reference atlases (Cappers *et al*. 2006; Jacomet 2006; NIAB 2004) and nomenclature used follows Stace (1997). Contents of the thirty-five samples that yielded plant remains are recorded in Table 13. A full quantification of the residue and flot data is available in the archive report.

Results
Most samples produced small flots, dominated by uncharred vegetative material, such as rootlets, twigs and seeds of goosefoots (*Chenopodium* sp.) and vetch/tare (*Vicia/Lathyrus* sp.). This material is sign of bioturbation across the site. Charred plant remains were in general scarce and poorly preserved. Pitting and signs of sediment encrustations due to fluctuations in the ground water level were commonly noted.

Period 2 (Late Iron Age)
Most of the sampled Period 2 deposits contained no or scarce charred plant macrofossils. Caryopses of emmer/spelt (*Triticum dicoccum/spelta*) and barley (*Hordeum* sp.) were recorded in the samples from this period, as well as a fairly large amount of indeterminate cereal grains. No chaff was present, therefore it was not possible to identify the wheat or barley down to species. A small number of oat (*Avena* sp.) caryopses were recorded; the absence of diagnostic floret bases hindered the identification to either a weed or a cultivated species. Other possible crop weeds were mostly large headed and belonged to taxa typical of grassland or waste ground, such as grasses (Poaceae), nettle (*Urtica* sp.), docks (*Rumex* sp.), black bindweed (*Fallopia convolvulus*) and stinking chamomile (*Anthemis cotula*). These taxa are fairly common arable weeds and it is likely that they ended up in the assemblage after failure to remove them from the crops through sieving. Roundhouse gullies G3 and G4 yielded sporadic remains of crops, probably representing a background scatter of waste from small-scale cooking or cereal-cleaning activities. A single acorn (*Quercus* sp.) cupule fragment from B1 gully segment [489] <61> could be remnant of wild plant destined to be fodder or, more likely, part of the woody material used for fuel, since oak charcoal was identified from the same feature.

Period 3a
The fill of G14 ditch [446] <56> in OA5 contained two cereal caryopses, one of barley and one of indeterminate cereal. The flot also contained a large amount of very small charcoal flecks. Samples from three ditches in FS1 produced rather small flots, dominated by uncharred rootlets, twigs and seeds. G35 ditch segment [763] yielded a small amount of cereal

caryopses, including wheat, barley and indeterminate, whilst seeds of wild plants included campions (*Silene* sp.), oat/brome, sedges and buttercups. Period 2 pond G9 was infilled during period 3a with charred caryopses of wheat, barley and oat, originating from a small scale burning accident.

Period 3b

The vast majority of the features from ENC1 yielded less than ten crop remains. Grains of emmer/spelt, barley, indeterminate wheat and cereals occurred sporadically in some features. Oat grains also occurred occasionally. Detached cereal coleoptiles were recorded in ditch [255] and are a sign of germination. A similar array of weeds as recorded in the earlier features were present, alongside others, indicative of similar habitats, such as bedstraws/woodruffs (*Galium/Asperula* sp.), ryegrass/fescue (*Lolium/Festuca* sp.), goosefoots, buttercups (*Ranunculus* sp.) and daisy family (Asteraceae).

Pit [292] <36> in ENC2 produced a small flot, dominated by uncharred contaminants. Charred plant remains consisted of a single indeterminate cereal, the seed of a goosefoot and a sedge (*Carex* sp.).

All features from OA7 produced no or scarce charred plant remains. When recorded, less than ten charred crop seeds were present in the features and they were poorly preserved. They included caryopses of wheat, barley and indeterminate cereal. Seeds of wild plants were also only occasionally present and belonged to the same taxa range as above, such as stinking chamomile, sedge and goosefoot. One single oat was recorded from this area, and again it could not be identified as a crop or a weed.

FS2 features produced indeterminate cereal caryopses, two small grasses and a clover (*Trifolium* sp.) seed.

Discussion

Charred crop remains from Sampford Road were generally scarce both in Period 2 and Period 3. As a result, no discernible differences in crop husbandry and land use were visible throughout the difference phases and within the two excavation areas. In general, they probably represent a background noise from crop processing or food preparation carried out in the vicinity of the features. Poor preservation of the remains was common and included both abrasion and pitting as well as sediment encrustations. The latter suggest that ground water levels kept fluctuating throughout the Iron Age/Roman occupations of the site.

Glume wheats and barley were the main cereals cultivated; although given the high percentage of unidentifiable cereal caryopses, their relative importance in the diet and economy is not clear. The absence of chaff remains hinders the identification of the glume wheats as either emmer or spelt. It is not clear if the barley in use at the site was two or six rowed, as no rachis fragments were recorded, nor were there clearly twisted caryopses, which would indicate the presence of six row barley. Oats occurred in some contexts and the lack of diagnostic floret bases hindered their identification as belonging to a crop or a weed. However, it is likely that at this time oat was not cultivated at the site.

The importance of wild plant material in the human or domestic animal diet is uncertain. The charcoal evidence showed that oak was dominant in the local woodland and, whilst acorns could have been fed to pigs, there was no evidence of deliberate collection or storage of acorns or other nuts in this particular assemblage.

The absence of glume bases and the presence of mostly large headed seeds in most features suggest that products of a later stage of crop processing were generally represented in these samples. It is generally thought that in regions with damp climates glume wheats were stored in spikelets (Hillman 1981), as this would have helped to protect the grains from fungal spoilage or insect attack. The absence of chaff from these samples, as well as the relatively small amount of caryopses recovered, might indicate that these assemblages do not derive from large scale deflagrations of stored crops, but are likely derived either from the last cleaning stages or cooking/food preparation, once the chaff had been partly or entirely removed. Chaff does however tend to burn away to ashes before grains do (Boardman and Jones 1990) and this factor might have contributed to the lack of such remains.

Given that the assemblages derive from a late crop processing stage, it is likely that part of the weed seeds assemblage has been lost. The smaller seeds tend to be removed at earlier stages, whilst the seeds of the same size as the cereals are harder to remove and tend to be picked out at the end of the cereal processing (Hillman 1981). Therefore, the weeds in this assemblage can provide only a partial picture of the vegetation environment and crop husbandry. Most of the weed taxa recovered from the Sampford Road samples are typical of open grassland or waste ground. There is a small indication of damp soils or wet environments, provided by the few sedges and possibly, depending on the species, the buttercups. This suggests that well drained or dry soils were used for agricultural purposes. The presence of stinking chamomile is very interesting. This weed was long thought to be a Roman introduction, but it is instead native (Stace 1997). Its introduction in archaeological contexts from the Late Iron Age onwards is considered indicative of an expansion of cultivation onto previously untilled land, as this weed is tolerant of heavy clay soils. It is a common weed in Romano-British and later deposits and its appearance coincides with developments in tool technology (Jones 1981).

The charred archaeobotanical assemblage from Sampford Road is fairly typical of the Iron Age and Roman periods in the south-east, with the predominance of glume wheats and barley. A very similar assemblage was recorded from the adjacent cemetery site of Bellrope Meadow, with scarce glume wheat and barley grains and very small amounts of indeterminate glume bases (Challinor 2007a). Emmer and spelt occur frequently at other contemporary sites and generally spelt is the dominant wheat species (*e.g.* Carruthers 2007 and 2008; Murphy 1999).

Wood Charcoal by Mariangela Vitolo

Following initial assessment (Archaeology South-East 2014) three bulk soil samples from the fills of Phase 3b features were found suitable for charcoal analysis. The features consisted of G30 pits [252] <25> and [275] <31> and G27 ditch segment [448] <57>, all in OA7.

One hundred charcoal fragments were selected from each sample and fractured along three planes (transverse, radial

Sample Number			26	27	28	29	30	33	34	36	37	38	40	41	43	45	46	47	48
Context			256	257	258	261	262	287	283	293	295	298	316	313	339	331	321	335	351
Feature			255	255	255	260	260	286	282	292	294	297	315	310	338	329	317	317	350
Feature type / Group			Ditch G24	Ditch G24	Ditch G24	Ditch G2	Ditch G2	Pit G29	Gully G4	Pit G29	Pit G30	Gully G4	Gully G4	Ditch G24	Pit G30	Ditch G26	Pit G29	Pit G29	Gully G4
Period			3b	3b	3b	2	2	3b	2	3b	3b	2	2	3b	3b	3b	3b	3b	2
Land use			ENC1	ENC1	ENC1	OA2	OA2	ENC1	B2	ENC2	OA7	B2	B2	ENC1	OA7	OA7	ENC1	ENC1	B2
Weight g			6	4	6	16	46	6	4	4	24	12	10	24	6	6	8	4	<2
Flot volume ml			25	30	30	25	45	35	20	25	70	30	25	35	20	10	20	10	5
Taxonomic Identification	**Common Name**	**Habitat Codes**																	
Triticum dicoccum/ spelta	emmer/spelt wheat caryopses	C*	10									20						1	
Triticum sp.	wheat caryopses	C*	1	2									1						
Hordeum sp.	barley caryopses	C*	4								2	20					1		
Avena sp.	oat caryopses	AC*	4													1			
Cerealia indet.	indeterminate cereal coleoptile	C*	1											1					
Cerealia indet.	indeterminate cereal caryopses	C*	13	9	7	1	1	1	2	1		29		2			7	1	
Urtica sp.	nettles	AD							1										
Chenopodium sp.	goosefoot	AD								1	1			1					
Fallopia convolvulus (L.) Á Löve	black bindweed	AD															1		
cf *Fallopia convolvulus* (L.) Á Löve	black bindweed	AD						1											
Galium/Asperula sp.	bedstraws/woodruffs													1					
Asteraceae	daisy family													1					
Anthemis cotula L.	stinking chamomile	ADh							1										
Carex sp.	sedges	EGMRw								1					1				
Poaceae	large caryopses	AHG	2																
Poaceae	small caryopses	AHG												3					
Avena/Bromus sp.	oat/brome	AHG																1	
Indeterminate weed seed									1						1				

TABLE 13: Charred Plant Remains

Key: Habitat characteristics:
A - Weeds of arable land, **C** - Cultivated plants,
D — Ruderals, weeds of waste and disturbed places,
E — Heath/Moorland, **G** — Grassland,
H — Hedgerows, **M** — Marsh/bog/fen,
R — Rivers/ditches/ponds, * - plants of economic value

Soils/ground conditions:
o — open ground, **w** — wet/damp soils, **h** — heavy soils

Sample Number			49	50	51	52	53	56	57	59	61	63	65	66	67	68	69	71	72	73
Context			367	411	419	424	400	444	447	484	490	522	653	659	676	681	694	765	771	833
Feature			365	412	417	422	399	446	448	486	489	520	652	658	675	681	693	763	769	832
Feature type / Group			Pit G30	Pit G28	Gully G3	Pit G29	Pit G30	Ditch G14	Pit G27	Ditch G26	Gully G3	Ditch G24	Ditch G31	Ditch G35	Ditch G39	Ditch G33	Ditch G34	Ditch G35	Pond G9	Pond G9
Period			3b	3b	2	3b	3b	3a	3b	3b	2	3b	3a	3a	3b	3b	3b	3a	3a	3a
Land use			OA7	ENC1	B1	ENC1	OA7	OA5	OA7	OA7	B1	ENC1	FS1	FS1	FS2	FS2	FS2	FS1	OA4	OA4
Weight g			4	8	6	6	14	<2	12	72	2	12	14	26	2	<2	4	12	40	56
Flot volume ml			35	25	15	20	40	5	30	80	10	35	45	50	15	40	35	40	75	75
Taxonomic Identification	**Common Name**	**Habitat Codes**																		
Triticum dicoccum/ spelta	emmer/spelt wheat caryopses	C*																	25	13
Triticum sp.	wheat caryopses	C*							1									4		
Hordeum sp.	barley caryopses	C*			1	1	4	1	15	1								3	26	10
Avena sp.	oat caryopses	AC*																	5	
Cerealia indet.	indeterminate cereal caryopses	C*		3		5		1	3						3	1		8	42	44
Ranunculus sp.	buttercups											1					1			
Quercus sp.	acorn cupule fragment										1									
Chenopodium sp.	goosefoot	AD																		1
Silene sp.	campions												1							
Fallopia convolvulus (L.) Á Löve	black bindweed	AD																		2
Rumex sp.	docks	AD							2										1	
cf. *Trifolium* sp.	clover	ACDGo														1				
Galium/Asperula sp.	bedstraws/woodruffs						1													
Anthemis cotula L.	stinking chamomile	ADh	1																	
Tripleurospermum inodorum (L.) Sch. Bip.	scentless mayweed	CD	1																	
Carex sp.	sedges	EGMRw	1											1						
Poaceae	large caryopses	AHG																		1
Poaceae	small caryopses	AHG														2			1	
Avena/Bromus sp.	oat/brome	AHG																1		
Indeterminate weed seed			1																	2

TABLE 13: continued

and tangential) according to standardised procedures (Gale and Cutler 2000; Leney and Casteel 1975). Specimens were viewed under a stereozoom microscope for initial grouping and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Reference atlases (Hather 2000; Schoch *et al.* 2004; Schweingruber 1990) were consulted for identification. Nomenclature used follows Stace (1997) and taxonomic identifications of charcoal are recorded in Table 14.

Results

Observed anatomical characteristics on the fragments submitted for analysis were consistent with three taxa or group of taxa, as listed below:

Fagaceae: *Quercus* sp. (oak)
Rosaceae: Maloideae subfamily, which includes taxa that are generally not identifiable on grounds of wood anatomy, such as *Malus* sp. (apple), *Pyrus* sp. (pear), *Crataegus* sp. (hawthorn) and *Sorbus* sp. (rowan/service/whitebeam)
Oleaceae: *Fraxinus excelsior* (ash)

Alongside those listed above, a number of other taxa were identified during initial assessment and are included in the discussion that follows, as they shed light on other aspects of the local vegetation environment and fuel selection strategies. These taxa included hazel/alder (*Corylus avellana/Alnus* sp.), alder buckthorn (*Frangula alnus*), cherry/blackthorn (*Prunus* sp.), field maple (*Acer campestre*), beech (*Fagus sylvatica*), elm (*Ulmus* sp.) and holly (*Ilex aquifolium*).

State of preservation was generally poor, which hindered the identification of a large proportion of fragments, particularly from the two pit fills. In both pit features, the fragments were generally small, whilst the ditch yielded larger fragments. Vitrification occurred on a number of oak fragments from pit [252]; this happens when the wood anatomy fuses, displaying a glossy glass like appearance. It is generally linked to high temperatures; however, experimental evidence has shown that high temperatures alone are not a sufficient cause for charcoal to become vitrified and that a precise cause is still unknown (McParland *et al.* 2010).

Discussion

Vegetation environment and fuel selection

During assessment (ASE 2014) a wider range of woody taxa were recorded than during detailed selective analysis, suggesting a variety of vegetation environments being present near the site and exploited for fuel procurement. Most of the taxa recorded at the site, such as oak, ash, beech, elm, holly, alder buckthorn and cherry/blackthorn, make good fuel woods (Taylor 1981) and might therefore have been preferentially selected. Others, such as maple for example, do not burn very well and might have been chosen because they were readily available in the local landscape. The analysed assemblages, however, were dominated by oak and contained a small amount of ash. G27 ditch segment [448] also contained three fragments of the Maloideae sub-family. Given that none of these three sample contexts represent *in situ* burning and are therefore likely to contain an amalgam of waste coming from different sources, such a uniformity in the assemblage is surprising. It is even more so for the ditch, because this feature

	Sample No	**<25>**	**<31>**	**<57>**
	Context	254	276	447
	Feature No	252	275	448
	Landuse	OA7	OA7	OA7
	Period	3.2	3.2	3.2
	Deposit type	Pit fill	Pit fill	Ditch fill
	Comment	quite fragmentary. Oak:rc, v, 6 rw	extremely fragmentary, some radial cracks in indet and in oak	generally large fragments. Oak: rc, rw: 15 (4 fragments 3 gr); Ash:4 rw, Maloideae: all rw
Taxonomic ID	**English Name**			
Quercus sp.	oak	69	63	65
cf *Quercus* sp.		9	16	5
Fraxinus excelsior	ash	3	2	19
cf *Fraxinus excelsior*				1
Maloideae group	hawthorn, whitebeam, rowan, apple, pear			3
Indet. Distorted	-	19	19	8
Indet. knot wood	-	1		
Totals		**101**	**100**	**101**

TABLE 14: Charcoal identifications

Key: gr – growth rings; rw - roundwood,; rc – radial cracks; indet – indeterminate, v - vitrified

type tends to fill more slowly over time and a wider spectrum of taxa tend to be represented in this kind of context.

The ubiquity of oak and the presence of other large trees, such as beech, in the assemblage from this site indicates that, although the fuel acquisition strategy was fairly varied, large trees were probably dominant in the landscape and not much pressure was put on woodland resources. Apart from deciduous and mixed woodland, also woodland margins, hedgerows and scrub seem to have been exploited for fuel, although some members of the Maloideae subfamily could also have grown as garden trees. There is no indication of wetland taxa, although alder buckthorn can grow on damp peaty soils (Stace 1997).

Comparisons with other sites

The adjacent cemetery site at Bellrope Meadow (Challinor 2007a) produced a fairly similar charcoal assemblage, deriving both from cremation burials and from ditch and pit features. Oak, ash and maple were dominant, with a smaller amount of other taxa, including Maloideae, cherry/blackthorn and alder/hazel. However, the dominance of oak and ash in the cremation burials could be related to the feature type. These two taxa also dominated Romano-British burials at Strood Hall, on the A120, with occasional wood from other trees, such as cherry/blackthorn, Maloideae and pine, perhaps used for kindling (Challinor 2007b). The species composition in contemporary contexts from Stansted Airport showed little differences with those from the earlier periods at the same site (Gale 2008). Here, oak was dominant in the mostly industrial related Roman contexts, although narrow round wood from a wider range of taxa was also represented.

The evidence suggests that, despite a varied fuel selection strategy, which made the most of any tree that was available, large woodland trees were dominant in the area and exploited for fuel. This seems to have been a region-wide phenomenon and it might indicate a lack of pressure on woodland resources in the earlier Romano-British period.

DISCUSSION

The recorded remains at this Sampford Road site define several phases of substantive, and apparently rapid, landscape change, particularly during the Late Iron Age and Early Roman periods. The nature and significance of these different episodes of land use is explored and considered, in relation to discoveries made at the adjacent Bellrope Meadow and elsewhere within north-west Essex, by means of a number of broad thematic discussions (landscape development and use, economy, place in the wider settlement hierarchy, *etc*.) within a roughly chronological framework. Places, sites and landscape features within the wider vicinity, mentioned in the following discussion, are located in relation to the site on Figure 16.

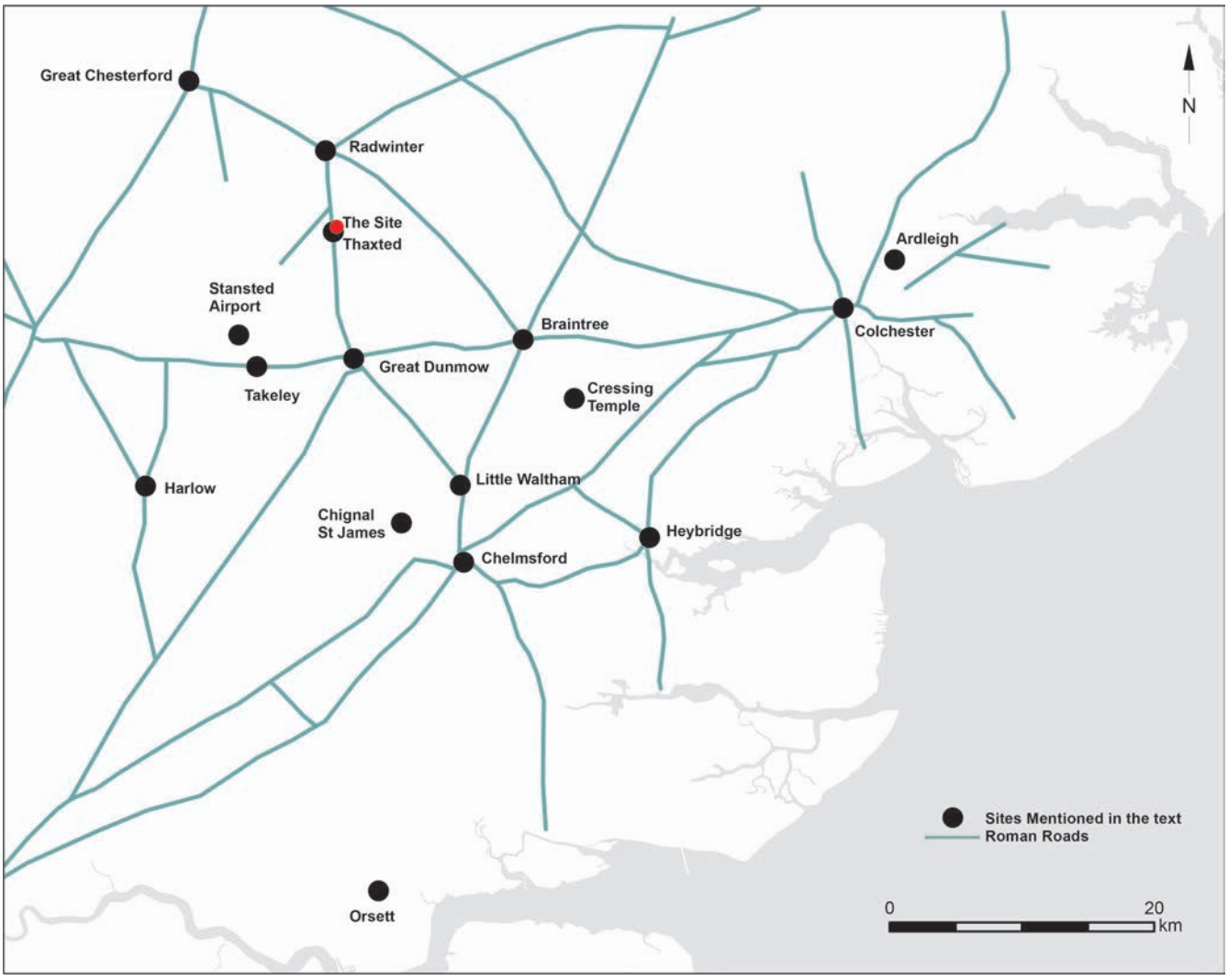

FIGURE 16: Location of places and sites mentioned in discussion

Iron Age land use—Periods 1 and 2

Although earlier prehistoric remains are known within the wider Thaxted vicinity and a small quantity of residual worked flint debitage of probable Neolithic to Bronze Age date was recovered during fieldwork at Sampford Road (Le Hégarat, pers. comm.), the Period 1 Middle Iron Age ditch in excavation Area 1 constitutes the first tangible evidence of human presence on the site. The nature of the land-use activity associated with it is not known, but the ditch was fairly substantial, implying an enclosure or land division of some description. It is likely that further Middle Iron Age features are present in the area of the site set aside for preservation *in situ* to the north-east.

Occupation of this vicinity in the landscape evidently continued and expanded during the Late Iron Age (site period 2), seemingly in direct continuity from that of the Middle Iron Age. The Period 1 ditch was maintained, indicating its importance as a landscape feature, although whether it defined an settlement enclosure or simply marked a division in the landscape is not clear. It is tempting to interpret this curving recut ditch as forming part of an oval or sub-square enclosure, though the limited insights afforded by the recorded remains in the evaluation trenches within its postulated interior (Trenches 7 and 8) are insufficient to confidently identify the remains of dwellings, storage and/or rubbish pits and other features indicative of a domestic occupation site, such as an enclosed farmstead.

While occupation within the posited enclosure is elusive, the two Period 2 roundhouses B1 and B2 constructed externally, to the south of the ditch, clearly relate to associated settlement. These are, however, the only buildings of any date found during the excavations. Indicated solely by the presence of their circular gullies, and lacking obvious internal structural features, the form of their construction is not clear. An internal partition was apparent in B1, along with other features that may or may not have related to its occupation. Few associated artefacts were recovered that help interpret these structures. However, in terms of general form and size, these are comparable to roundhouses elsewhere in Essex (*e.g.* Little Waltham, Drury 1978, 118–24; Stansted Airport ACS site, Havis and Brooks 2004, 79–115; Timby *et al*. 2007, 73–6). While the roundhouses were not obviously within an enclosure, their presence indicates that settlement was concentrated on higher ground in the northern part of the site and it is again probable that this activity extended to the north, in the area designated for preservation *in situ*. The date of the roundhouses is not entirely clear, but the scant evidence points to a 1st-century AD date, presumably earlier in that century given the fact that they pre-dated Open Area 6 and Enclosure 1.

Whether any of the features excavated to the west at Bellrope Meadow are contemporary with the roundhouses is debateable. In any case, it seems likely that this location was peripheral to the main occupied area at this time. Indeed, Pre-Roman Late Iron Age land use activity appears to have been relatively sparse across the wider landscape. No rectilinear field systems are in evidence; instead, irregular ditched boundaries (G8/G14 and G10/G11/G13) suggest a more organic landscape development, defining large land entities that were most probably livestock pasture.

However, the recent discovery of another settlement of a similar date 300m to the south of Area 1 at Wedow Road B (Webster 2016) indicates that the landscape was well settled at the time. Here, a roundhouse within a large enclosure was dated to the mid–late 1st century BC, slightly earlier than the Sampford Road examples. It was 8.5m in diameter, marginally larger than Sampford Road B1 (8m) and its ring ditch was similar in morphology. The site has been interpreted as a small farmstead. It is interesting to note that Wedow Road B also featured a possible Early Iron Age ditch which was apparently isolated in the landscape (although its date is tentative, being based on a single fragment of pottery), not dissimilar to the occurrence of the Middle Iron Age ditch at Sampford Road.

The presence of the Wedow Road B settlement in the 1st century BC raises two possibilities. Either it was established first and then abandoned, possibly in favour of the Sampford Road site, or it continued in use and the two agricultural communities operated contemporaneously. Both possibilities are postulated by Webster (2016, 21–23). Either way, it appears that the Wedow Road B enclosure, but not the roundhouse, was redefined and used in the Early Roman period at the same time that the Sampford Road field systems were expanding southwards. Potentially the two farmsteads had grown and either merged or shared a common border at that stage.

Latest Iron Age and Early Roman land use—Period 3

As previously mentioned, direct correspondence of the multiphase Early Roman landscape remains between excavation Areas 1 and 2 is uncertain. However, given the apparent short timespan involved (mid to late 1st century AD), this is perhaps likely. In essence, the two broad land use episodes identified (Phases 3a and 3b) demonstrate a degree of continuity but also rapid change and expansion.

Phase 3a

While the organic Late Iron Age boundaries were infilled around the time of the Conquest, perhaps deliberately so to make way for more regular enclosures, settlement appears to have remained focused on the northern higher ground. The somewhat irregular and undefined plots in Open Area 6 are tentatively interpreted as the edge of an occupation zone the major part of which lay to the north. Whether the gullies delineated yards outside dwellings or represent working areas associated with settlement is not certain, but they were not of a suitable size for an agricultural function.

It is probable that Open Areas 5 and 6 were broadly contemporary with the FS1 field system remains recorded to its south. Extending west into Bellrope Meadow, this field system may have been associated with the settlement enclosure, constituting agricultural management and exploitation of its surrounding vicinity. Comprising rectangular fields of differing sizes, its mixed arable and pastoral use is supposed. The east-to-west extents of this system have seemingly been established by excavation, a distance of *c*.120m across both Sampford Road and Bellrope Meadow excavations (Fig. 7), though the full northern extent toward Open Area 6 is not established.

FS1 land use also included that of burial activity, with an area given over in the postulated south-west corner of FS1 to cemetery use within the Bellrope Meadow excavation site (Fig. 7; Stansbie *et al*. 2009, 69). It is conjectured that this cemetery most probably serviced the perceived occupation focus at OA6. However, comprising the remains of five cremation and six

inhumation graves that span the mid-1st to mid-3rd centuries or later, it is evident that it also accommodated the dead from subsequent phases of settlement.

Such forms and development of rural settlement can be found elsewhere in Essex. An example is the enclosed settlement of roundhouses, adjacent to rectangular fields (albeit larger than those at Sampford Road) and an enclosed cemetery, found on the west side of Stansted Airport, on the 'LTCP' site (Cooke *et al.* 2008, 96–103), originating in the Late Iron Age and developing into the Romano-British periods. The cemetery area was more formal than that evident at Bellrope Meadow, with three distinct parts. There was noticeable expansion of the field system in the 1st century and a stock enclosure was added in the late 1st/early 2nd centuries.

Phase 3b

It is probable that the double-ditched Enclosure 1, occupying slightly higher ground within the north of the site, was the location of a settlement, cutting through the previous, potentially unenclosed, roundhouses and superseding the Open Area 6 plots.

Only a small part of the Phase 3b Enclosure 1 was exposed within excavation Area 1 and adjacent Trench 8. With only parts of its south and east sides defined, the overall form and extent of this apparent double-ditched rectangular enclosure are not certain. A similar, but more regular and complete, example may be found in the Orsett Cock Enclosure, where a pair of double-ditched enclosures was surrounded by a further all-encompassing ditch, within which were a series of buildings (Carter 1998, 18–32). The dimensions of the Orsett Cock ditches were very similar to those of the Sampford Road enclosure, though they exhibited a more V-shaped profile. The Orsett Cock Enclosure was dated to the early 1st century AD, with mid 1st-century modifications, the latter interpreted as a defensive structure created in response to the Roman invasion (Carter 1998, 168). Whether the Sampford Road example contained buildings or not is unknown; although its peripheries were occupied by scattered pits, the evaluation trenches across its interior contained no demonstratively contemporary features. However, its construction over Open Area 6, a postulated unenclosed occupation area, demonstrates a clear and substantive change in land use, possibly as a result of a desire to create a defensive work surrounding a settlement in the mid-1st century AD.

The FS2 and FS3 systems, of long, thin, shallow, regularly-spaced ditches in Area 2, are clearly different from FS1 which they replaced and surely demonstrate a change in, and perhaps expansion of, agricultural practice. Similar evidence has been observed on a number of other sites in Essex, and beyond, where they have been variously interpreted as strip fields, ridge-and-furrow divisions, bedding trenches or raised cultivation beds with side ditches. The dating of this kind of field system in Essex has also been extensively debated and examples have been identified as being potentially as early as the Late Iron Age (*e.g.* Harlow, Archaeology South-East 2015a), Roman (*e.g.* Takeley, Roberts 2007) and medieval (*e.g.* Chignal St James, Clarke 1998) periods, through to post-medieval (Harlow, Robertson 2004). Indeed, the majority of such field systems have been interpreted as medieval (Takeley, Germany *et al*. 2017 and Archaeology South-East 2015b; M25, Biddulph and Brady 2015; various A120 sites, Timby *et al*. 2007; MTCP site Stansted Airport, Cooke *et al*. 2008). The A120 site at Blatches, near Little Dunmow (Timby *et al.* 2007, 160–1 and fig 5.2), bears a striking resemblance to FS3. However, at Blatches, the gullies were interpreted as medieval drainage channels dividing raised cultivation beds.

Other close parallells to the Sampford Road examples are those south of Dunmow Road at Takeley (Roberts 2007) which were found close to, and aligned upon, the Roman road of Stane Street. A large area of ditches was excavated, showing a greater degree of regularity than at Sampford Road though with spacing of *c*.6m apart and very similar feature dimensions. These were dated as Late Iron Age to Early Roman and interpreted as ditches draining the land for basic arable agriculture (Roberts 2007, 63). Three phases were discerned, showing expansion of the fields, and they were apparently associated with pits, cooking pits and hearths of a similar date.

At Ardleigh, north-east of Colchester, a series of linear cropmarks defines strip fields between 12m and 30m in width and 75m to 100m in length, both wider and longer than the Sampford Road examples, divided by trackways (Martin and Satchell 2008, 8). Where limited excavation has occurred, these have been determined to be of Early Roman date.

The crucial factors to take into account when considering the date of the Sampford Road strip fields are threefold. Firstly, all of the pottery recovered from the ditches is dated to the 1st century AD. The only finds of a later date were medieval tile fragments, two recovered from G32 ditch segment [661] in the north-west of Area 2, and a small collection from segment [3] in evaluation Trench 29, part of the same ditch. Both fragments from [661] were very small and are considered to be potentially intrusive from animal action or rooting from the topsoil. Those from slot [3] came from a part of the ditch cut by a much later feature [4], described by the excavator as 'possible feature, mole drain?', and again the presence of the tile may be the result of contamination from this. It is worth mentioning that the ditches in Field System 1 also yielded some medieval or post-medieval material, but again the fragments were very small and few, and from the top fills of two ditch segments, [729] and [763], where contamination is more likely. On its own, the artefact dating is weighted heavily in favour of a Roman, rather than a medieval, date, but it is not perhaps entirely conclusive.

Secondly, the orientation of the field systems is important. The ditches run generally west-north-west to east-south-east, on the same alignment as the earlier Roman Field System 1, but at odds with the known Late Roman boundary ditch G54, which is aligned east-north-east to west-south-west, and with post-medieval features (FS4), which are aligned directly east-to-west and north-to-south. It may be noted that the field system ditch alignments of FS1 to FS4 accord better with the orientation of the Enclosure 1 ditches to the north, although these are admittedly over 100m away. FS2, in particular, seems to reference the eastern extents of the preceding FS1 layout, perhaps incorporating the remains of ditch G35 and possibly G31 as FS2 was not traced beyond this into Bellrope Meadow.

Thirdly, the stratigraphic relationships of the field system ditches with features from other periods, where they occur, are indicative of a pre-medieval date. The most significant relationship is that with ditch G54, interpreted from the pottery recovered from it as Late Roman, which clearly cuts across the G47 and G52 strip field ditches.

While drainage may have been a secondary function, the narrow ditches of FS2/FS3 do not generally connect and many terminate or have gaps in their lengths. It is perhaps more likely that they were either bedding trenches for a specific vegetable or fruit crop, or that they define narrow strips farmed in the manner of ridge and furrow, with a raised and ploughed area between the ditches. Given that they did not accumulate significant quantities of cultural material in their generally homogenous single fills, it may be postulated that they were not open for a prolonged period of time and that they did not function as open features. Elsewhere, where larger cohesive areas of these ditch systems have been investigated, it is apparent that they often define distinct blocks of parallel ditches/gullies that are seemingly bounded by slightly more substantial ditches. Multiple blocks form complexes, generally arranged in a 'patch-work' of roughly perpendicular alignments to one another, associated with occasional trackways that may mark their outer extents. A prime example of this has been recorded at the North Enterprise Zone site, Harlow (Archaeology South-East 2015a). Although clearly medieval, the strip ditch system at Brewer's End, Takeley has been demonstrated to have been subsequently enclosed within a significantly more substantial boundary ditch of early post-medieval date (Archaeology South-East 2015b). While the strip ditches were clearly defunct or infilled before the boundary was imposed, they had presumably formed/defined a tangible and recognised medieval land use entity that was perpetuated and formalised by the later boundary. Although not entirely analogous with FS2/FS3, these two examples provide some insights into what the overall nature and layout of the Sampford Road complex may have been—*i.e.* blocks of parallel trenches possibly functioning as land drainage between narrow cultivated strips, each block effectively constituting a rectangular field, whether formally bounded or not, within a wider complex or system of similar fields.

The progression from FS1, a smaller group of rectangular fields with deeper ditches, to the strip fields of FS2/FS3, likely denotes a major change in the type of agriculture being practised. The change, possibly from predominantly pastoral to arable, may be related to the introduction of Roman farming techniques in the 1st century AD and/or possibly an increasing demand for arable products as more substantial village- and town-like settlements began to grow in the surrounding vicinity (*e.g.* Great Dunmow, Great Chesterford, ?Radwinter).

Middle/Late Roman land use—Period 4

The sparse nature of the evidence from Period 4 is taken to be an indication of the decline and/or contraction of the settlement focus just to the north of the site, which may have occurred as early as the end of the 1st century AD. However, it is noted that the Bellrope Meadow cemetery activity includes burials of apparent 3rd-century or later date. It appears that the type and scale of farming changed; the only definite indicator of land use activity being the single G54 ditch that ran across Area 2 on a distinctly differing alignment to the preceding field systems it cut. Other than this, only the copper alloy armlet, seemingly intrusive in a Period 3 pit, suggests any Late Roman presence within this landscape.

The early date, scale and apparent rapidity of the abandonment (or relocation?) of the settlement and its associated agricultural infrastructure, particularly given the intensity of its development and change in the 1st century AD, is unusual for Essex. While 1st–century foundation is common, gradual decline and/or contraction through the late 2nd/3rd century onwards is more the perceived norm across Roman rural occupation sites of varying size and status (*e.g.* Dovehouse Field at Cressing Temple, Ennis and Atkinson forthcoming; Strood Hall, Timby *et al.* 2007; Heybridge, Atkinson and Preston 2015).

The character of the Late Iron Age and Roman farmstead

Given that it appears the Late Iron Age and earlier Roman land use can be characterised as comprising occupation in excavation Area 1 and agricultural activity in Area 2, together presumably constituting parts of a farm, it is apposite to consider the indicators of their economy, status and social practices in order to better understand the nature of land use evidenced.

Clearly a rural settlement, the nature of the use of the land surrounding the perceived occupation focus is not easily discerned. While it is speculated that the relatively open Late Iron Age (Period 2) landscape was perhaps primarily pastoral, on the basis of the splayed entrance between OA3 and OA4 and pond/wallow G9, the increasingly elaborate ditched field systems of Period 3 must surely constitute the introduction of far more formal and managed agricultural regimes that may have been of mixed arable and pastoral nature. It has been argued that the small square enclosures and sub-enclosures of the Phase 3a field system (FS1) would have been better suited to the holding of animals rather than cultivation of crops. However, the strip-like ditch complexes of FS2 and FS3 of Phase 3b suggest a subsequent switch to, or concentration upon, a more intensive arable production. Whether this is short-lived or that this production continues in a less-defined landscape beyond the 1st century is unclear, though some sort of reorganisation had clearly occurred by the Late Roman period (Period 4). The environmental evidence for arable crops is uniform across Periods 2 and 3 and demonstrates a reliance on wheat and barley, oat perhaps occurring as a weed rather than a crop. Burnt cereals and associated waste attest to crop processing though do not show scale of production. As is the case across many Essex sites cattle and sheep/goat increase from the Late Iron Age to Early Roman period. While an emphasis on the incidence of older animals indicates the primary function of cattle as animals of traction and the exploitation of sheep for secondary products such as wool, they retained a place in the subsistence economy as a source of meat. The few tools recovered provide little further insight into the nature of the agricultural economy; a mixed regime, of unestablished balance between arable and pastoral, is assumed.

Only a low level of craft production, presumably practised at a subsistence/self-sufficiency level, is evidenced in the recovered artefactual assemblages. As is typical for such rural settlement sites, artefacts indicative of textile manufacture and debris deriving from ironworking are present in small quantity, the latter notably recovered from the OA7 activity area just outside the Phase 3b ENC 1 settlement enclosure. The nature of the land use in OA7 is intriguing but obscure, comprising the massive, broadly linear cuts G26/G27 and a cluster of pits

and post-holes surrounding it, with no obvious structural form. The only potential clue lies in the discovery of iron-working slag in the fill of pit [294], adjacent to G27, and this is by no means conclusive evidence that metal-working was carried out in OA7. Nevertheless, it is possible that this open area between the enclosure and the fields to the south was a working space for artisans and craftsmen. Alternatively, it may have been employed for storage of crops between harvest and consumption; G26/G27 was large enough for storage capacity, although unusual in form for such a use.

Phase 3b 'pit' [791], in excavation Area 2, appears to have underlain a structure of some sort and, particularly significantly, is the only feature to show clear signs of ritual behaviour. The deliberate placement of coins within the niches that likely housed cross-timbers over the rectangular pit, possibly supporting a floor, is regarded as a propitiatory offering intended to ensure the integrity and/or successful functioning of the structure. While it could be postulated that the pit and its overlying structure itself had a ritual function—such as that of a small shrine located amongst agricultural fields —roughly similar pit [803] nearby displays no traits of structured deposition. It is more likely that [791] was therefore a secular rather than sacred structure; albeit a valued and protected one. Although the deposition of disarticulated and part-articulated human bones is a well-known phenomenon in features on Iron Age and Early Roman sites across Essex (*e.g.* Stansted Airport MTCP site, Cooke *et al*. 2008, 120; Dovehouse Field, Ennis and Atkinson forthcoming), the circumstance and significance of the occurrence of the fragments of two ?adult skulls in Phase 3a ditch G20 and in Phase 3b ditch G11 is unclear. The former was located in the settlement area of the site, while the latter came from FS2.

The pottery is fairly typical of assemblages from lower status Early Roman rural sites in Essex, being dominated by jars and coarse ware fabrics, with a limited range of regionally-traded or imported table wares. The recovery of only four Roman brick and tile fragments (and only two from Bellrope Meadow) at the very least indicates that there were no high-status buildings or substantial fire-proof structures such as ovens/kilns or corn-dryers in the vicinity. This is presumably a reflection of the low status and relatively simple fabrication of whatever structures comprised the inferred farmstead. Despite being located close to the Dunmow–Radwinter road, it appears that the settlement may not have attracted, or had the wealth to acquire, more expensive traded commodities. The Bellrope Meadow cemetery did, however, contain at least one imported vessel amongst its grave goods, a Central Gaulish samian ware dish or bowl, as well as a sherd of North Gaulish white ware beaker. Of course, acquisition and use of such goods for 'special' funerary purposes is a very different matter to that for mundane domestic consumption and it is entirely likely that low-status settlements such as this used local coarsewares in daily life but were willing and able to acquire more exotic items when the occasion demanded. While there is indication that a modest range of traded goods were accessible to this settlement, this does not appear to include commodities from the coast. The absence of salt briquetage and very low incidence of oyster shell is perhaps a further indication of low status and restricted Romanisation, though equally may more simply be a function of distance and indirect communication routes.

The wider landscape in the Late Iron Age/ Roman period

The settlement at Sampford Road was seemingly at its height in the mid to late 1st century AD but rapidly declined thereafter, though occupation continued in some reduced form into the 3rd century, and possibly beyond, as shown by the continuance of the cemetery at Bellrope Meadow. The site is close to a mooted Roman road running north out of Great Dunmow and heading for an until recently entirely postulated roadside settlement at Radwinter, assumed to be located at a crossing point of three Roman roads. The previously-conjectured Radwinter settlement was discovered by geophysical survey and subsequent excavation in 2015 (Moan 2017). Its excavated remains comprised Early and Middle Roman field systems with peripheral occupation activity and a cemetery, though the geophysical survey plot suggests an adjacent settlement core that is more developed and possibly semi-urban in nature, perhaps even being resonant of the layout of the Late Iron Age and Roman settlement at Heybridge (M. Atkinson, pers. comm.).

The field remains recorded at Radwinter are of a comparable size to those of FS1 at Sampford Road, at 22m across or 42.9m in the case of a double-sized plot (Moan 2017, 22–24), and their defining ditches are also of similar general dimensions. However, a far larger area of fields and occupation has been revealed by geophysical survey at Radwinter and it is clearly a more substantial agricultural settlement (Moan 2017, fig. 13). It lies 5.9km (3.6 miles) north of the settlement enclosure at Sampford Road, while Dunmow is 9.7km (6 miles) to its south. Therefore, Sampford Road may be viewed as a rural settlement, probably a farm, located alongside the road between the two larger ?market settlements and presumably easily within a day's return journey from both. Thus, it would have had ready access to local distribution centres for its produce. The precise location of the road is not known, but is likely to be located only a short distance to the west of the Sampford Road and Bellrope Meadow sites. Indeed, it is possible that the perceived west end of FS1 coincides with the roadside, the Bellrope Meadow cemetery activity being deliberately sited alongside it.

Medieval and Post-medieval land use

No tangible evidence for medieval land use is apparent. Presumably, and not unexpectedly, the Roman settlement and its enclosure systems had no lasting influence on the landscape, and resumption of agricultural land use is not demonstrable until the 16th century. The few post-medieval remains, mostly linear ditched boundaries, recorded within the site are aligned directly east-to-west, on a substantially different alignment to all earlier features. The ditches were all in the south of Area 2 closest to the town of Thaxted and perhaps implying an expansion of its agricultural hinterland into this vicinity around this time. However, the recovery of a small quantity of medieval pottery sherds residual in post-medieval features suggests at least some degree of land use activity prior to this.

The northernmost recorded boundary ditch can be clearly traced into Bellrope Meadow, where it was observed to corner southwards. This may hint at the continued presence of the Roman road a short distance to its west.

CONCLUSIONS

Prior to the excavations at Bellrope Meadow in 2007, Sampford Road in 2014 and Wedow Road B in 2015, the material evidence for Iron Age and Romano-British activity in the environs of Thaxted was confined to stray finds, both in the town and in the surrounding fields. The recorded remains at Sampford Road are interpreted to be those of successive settlements, probably farmsteads, and their adjacent agricultural lands that appear to have undergone extensive and repeated remodelling through the 1st century AD, a process mirrored to an extent at Wedow Road B, though whether this was a direct consequence of Roman conquest and acculturation is uncertain. Seemingly either abandoned or shifting elsewhere in the vicinity by the 2nd century, it is evident from the adjacent cemetery at Bellrope Meadow that some form of occupation persisted into the 3rd century and perhaps beyond.

As the first substantive evidence of Roman occupation at Thaxted, this site is of some importance to the understanding of land use and settlement density and distribution across north-west Essex, particularly alongside the recent confirmation of the presence of a possibly town-like settlement at Radwinter to its north. The Sampford Road farmstead was likely one of a number of such rural settlements located close to the Great Dunmow–Radwinter road, the western extent of its lands potentially marked by the roadside itself. The settlement remains at Wedow Road B demonstrate that this was not an isolated farm and it is possible that other such small agricultural enterprises existed further to the south, perhaps beneath the medieval and later town of Thaxted itself, as well as to the north. The road would have provided the transport links required to distribute the produce to markets at Great Dunmow or Radwinter and beyond. Such farms, small as they may have been, likely played a vital role in the Late Iron Age economy, later becoming equally important to the Early Roman supply network.

The decline of the settlement during the later Roman period is not surprising in itself, indeed this occurs across Essex at similar sites as a gradual process in the Late Roman period. However, the apparent rapidity of its disuse after its 1st–century AD expansion is unusual. Without the evidence of burial activity into the 3rd century at Bellrope Meadow it could have seemed that the site was completely abandoned in the 2nd century, but a more likely explanation is that the focus of occupation simply migrated, either to the north or perhaps to the west of the road.

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A Roman Building in West Essex

Peter D.R. Sharp

This article discusses an area of Roman tile exposed following the harvesting of a root-based crop. The defined area revealed one of the largest Roman buildings to be found in Essex. The size of the building and the high status of many finds including Roman military metal objects indicate the building was probably occupied by a ruling class of people.

INTRODUCTION

In October 1999, the author's attention was drawn to a previously unknown site in High Laver parish adjoining its border with Matching, centred on NGR TL 5215 1054 (51.46.23N 0.12.14E). A large quantity of Roman brick, but mainly fragments of tile, had been exposed following the harvesting of a potato crop. A number of metal artefacts had earlier been located in the area, suggesting the site had been continuously occupied from the Bronze Age to the Saxon periods and possibly later (see Finds Reports). A detailed metal detector survey was undertaken on the site between 1998 and 2012. This report outlines the field investigation that was undertaken by the author, and discusses the development and wider context what was a substantial Roman building.

GEOGRAPHICAL AND LANDSCAPE SETTING

The site is located in a rural area, 1km south-east of Matching Tye and about 1km west of Matching Green (Fig. 1). The nearest large-scale Roman settlement is at Harlow, 7km to the west. It sits on a northern spur of the Epping Forest ridge that separates the Rivers Lee/Stort and the River Roding, on relatively level ground with a shallow south facing slope. It is

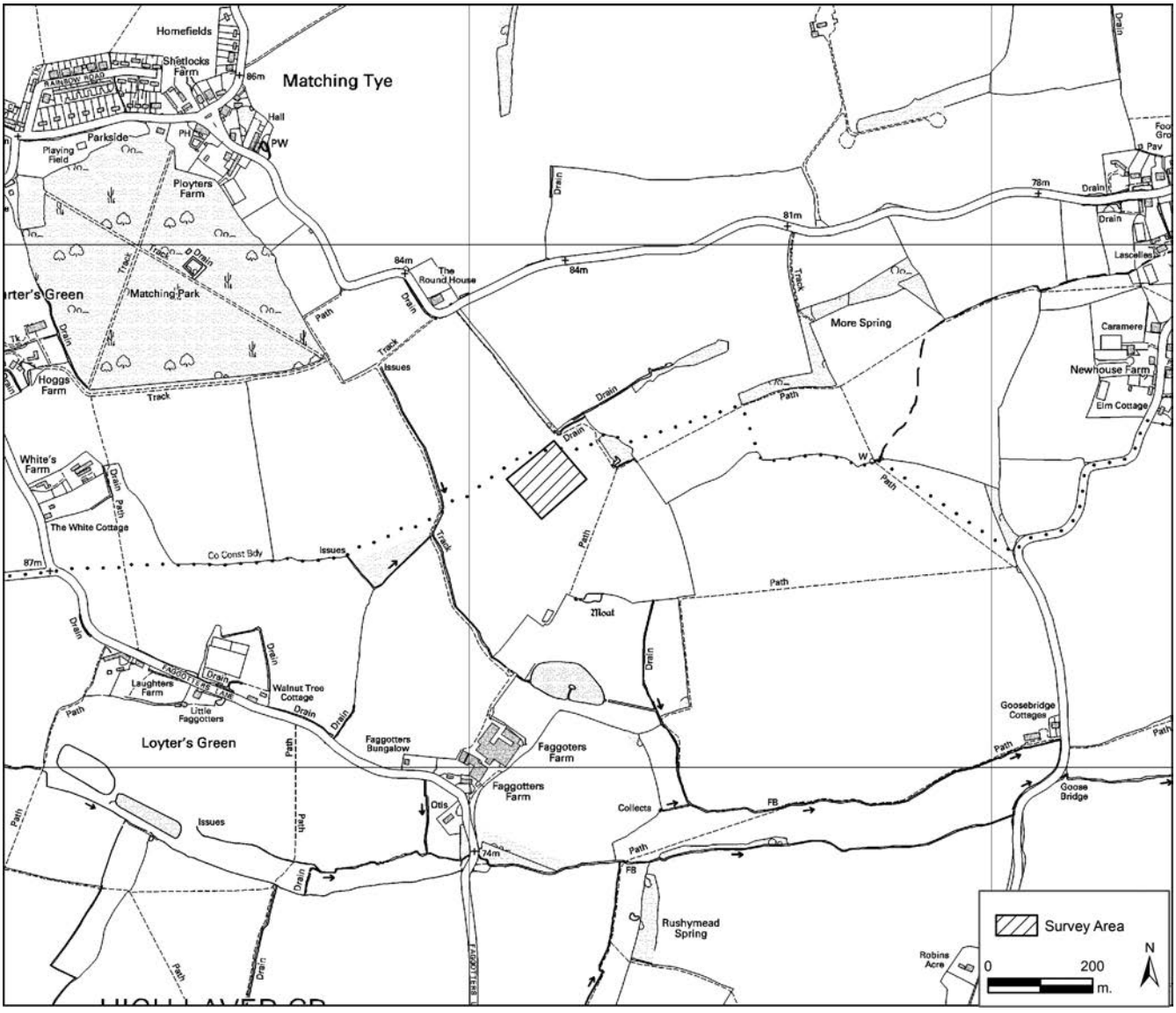

FIGURE 1: Location of the site (shaded area).

1km east of the watershed at 91m (OD) between the River Stort to the west and the River Roding to the east. To the west of the site, the head of a shallow valley from the watershed eastwards is formed by a fan-shaped shallow bowl. There are three main water-carrying ditches that flow eastwards into a single ditch. The site, on relatively high ground at 82m OD, provides views southwards over the River Roding valley to Kelvedon Hatch 12.5 km, and Ongar Park Wood, North Weald 9.5 km distant. The view to the north and north-west is to the watershed. To the east is slightly undulating ground, bisected by small steams and brooks until it reaches the south-flowing River Roding, a tributary of the Thames. The site when viewed from the valley bottom appears to be on a slight knoll, exaggerating the prominence of the location (Fig.1).

GEOLOGY AND CURRENT LAND USE

The surface soils in the area are made up of Boulder Clay with a wide scatter of small flint stones. There are no natural building materials, other than glacial erratics that have been gathered and deposited near local churches and around farm buildings. Occasional pockets of gravel are also found. About 100m south of the site towards the valley bottom, a distinct line of a darker alluvial soil is clearly seen following a natural contour level from west to east, forming a strip about 75m wide. The shallow valley bottom hosts a narrow water-filled ditch. The farmer Mr Richard Morgan has monitored the ditch for more than 50 years and has never seen it dry. The alluvial soil is very fertile and easily worked and as such proved productive for early cultivators. Its presence may well have determined the location and extent of early arable cultivation. The area has long been recognised for its high-yielding crops. Cropmarks found north-west of the site suggest a pre-medieval field system existed.

Current land use is dominated by arable cultivation mainly for cereals. The last recorded root crop was in 1999 when ploughing up to 30–35cm deep was required for the production of potatoes.

ARCHAEOLOGY AND HISTORICAL BACKGROUND (Fig. 2)

The important temple site at Harlow (NGR TL 468123; Essex Historic Environment Record (EHER) 17, 107, 108, 109, 122, 3531, 3581 and 169650) is located 5.7km to the west. The temple occupied a site that was used from Neolithic to

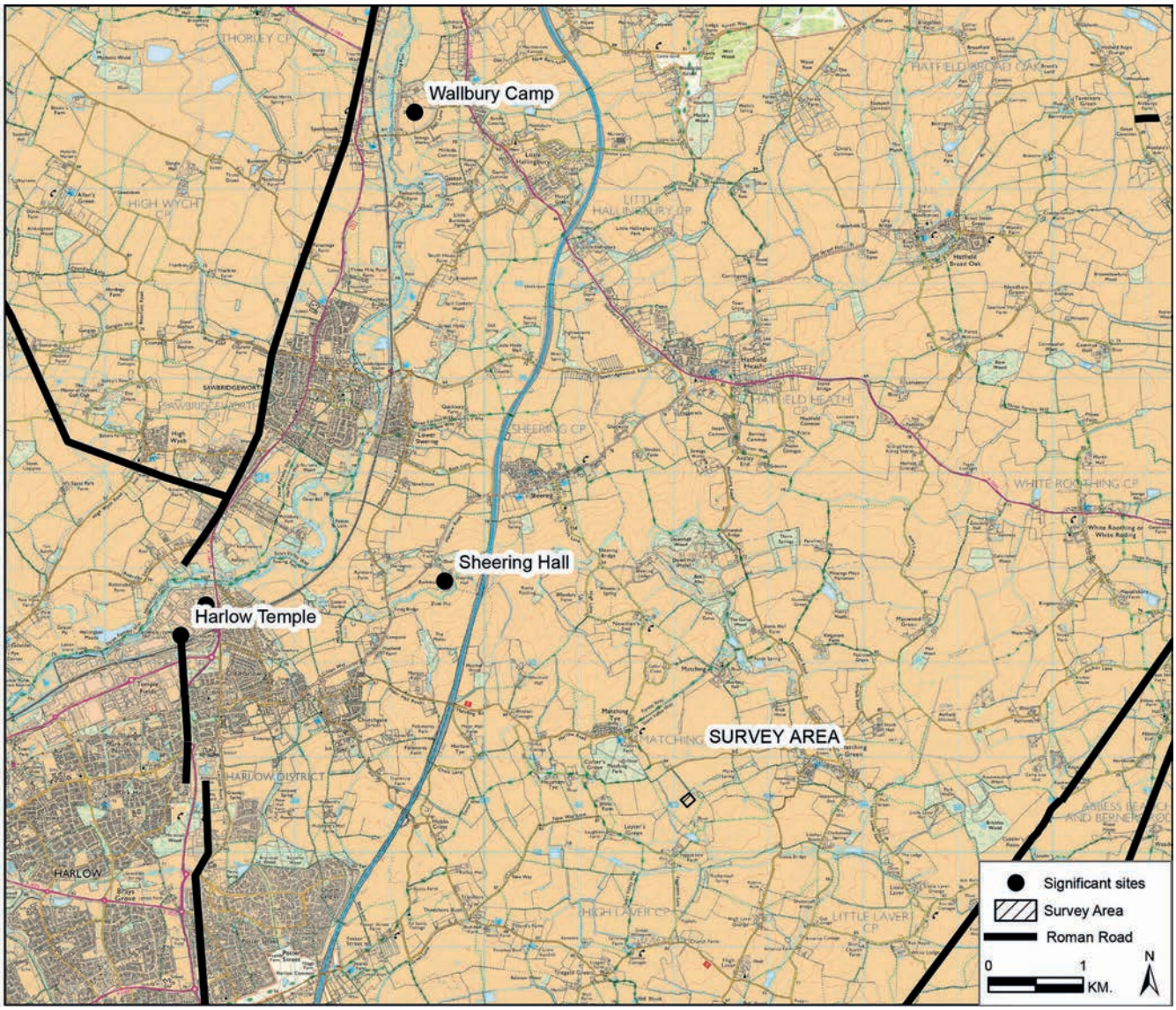

FIGURE 2: Iron Age and Roman sites near the survey area

Saxon times (France and Gobel 1985, 1–125; Priddy 1982, 140; Bartlett 1988; Rippon 2016). An industrial-type Roman settlement is located to the east of the temple (NGR TL 460 125; EHER 3609). The Iron Age earthworks at Sheering Hall (NGR TL497128) are located 3.5km to the north west (EHER 373314; Robertson 1978, 86). The Wallbury Iron Age Hill Fort (NGR TL 493178; Scheduled Monument 1002190; EHER 16) is 7.5km to the north (RCHME 1921, 93).

The site does not appear to have had a direct link to a known system of Roman roads, but it may be that it used a more local, long established network. The nearest Roman Road, the London to Great Dunmow road (Margary 1973, 253) is situated 1.7km to the east at Little Laver.

THE SURVEY

Following the harvesting of a crop of potatoes in October 1999 at the High Laver site, the ground was left clear of any vegetation. The clearance revealed a dense concentration of what was clearly Roman building debris, nearly all tile, with some brick, that extended over a large area. The brick and tile was clearly visible when viewed from 50–75m distant, the edge of the deposit being very distinct. Its edge was so well defined that it was possible to step into, and out of, the brick and tile scatter in less than one footstep. The tile sherds varied in size from up to a quarter of a complete tile to very small fragments. The outer edge of the deposit appeared to indicate the footprint of a building. The concentration of tile with the same heavy scatter pattern was noted inwards towards the centre of the presumed former building. In addition, a small quantity of hypocaust bricks/tiles were found as was a large scatter of neatly cut tesserae: these were the same colour as the tiles, no other coloured tesserae were noted. Typically for a Roman period site, an erratic scatter of oyster shells was found. The tile and brick showed no signs of smoke staining.

Survey of the tile concentration revealed that the debris spread had straight lines and sharp right-angled corners, forming a rectangular outline with projecting wings at either end, on a north-east to south-west orientation. In plan it clearly represents the outline of a Roman building (Fig. 3). No break was found throughout the length and width of the building's footprint. The tile scatter was consistent throughout, except in the east section of the northern length, where it was found to be ragged in outline. The brick and tile scatter suggested the building may have been an elongated 'U' shape. The outline of the brick and tile scatter was defined using surveying poles/pegs and measured. The south-west length of the building measured 71m, the width of the building 23m. The north-west section had a 13 x 17.25m north-east facing wing. This was mirrored at the eastern end by a wing of similar dimensions. However, the tile scatter here was less well defined. The total ground floor area is about 2080sq m. A limited scatter of tile fragments extended westward from the main section of the building for about 10m. It is not known if this was an extension of the building or fallen debris from the main building. An oval shaped (maximum 20 x 15m) concentration of fragments of brick and tile was also found about 30m to the west of the site (Fig. 2). In November 2006 the site was visited by Dr David McOmish, English Heritage landscape archaeologist, who considered that the tile spread represented a winged corridor villa of Roman date.

On 4 September 2012 a magnetic survey of a 100m square area of the site of the building was made by Dr Peter Morris using a Bartington type 601 gradiometer. The survey clearly showed former ditch lines found on the 25inch to one mile 1896 Ordnance Survey map, but failed to reveal any anomalies consistent with the presence of a significant building. This suggests that any former structure would have been of surface/semi-surface construction with shallow foundations.

FINDS REPORTS

Pottery, Comments by Scott Martin

Selected pottery rims and bases were submitted to the Essex County Field Archaeology Unit for identification. Scott Martin reported as follows on pottery submitted in 1999: 'A small amount of Roman pottery was present mostly consisting of undiagnostic body sherds. Very little of this material is closely datable. The range of fabrics comprises Hadham grey ware, miscellaneous buff and grey wares and Hadham oxidised red ware. The Hadham oxidised red ware sherd is from a small pedestal base and may be 4th century in date'.

In 2000, he reported on a further group as follows: 'A total of thirteen Roman sherds are present from this site, all of which fall within the period *c*.AD 80–400+. There are seven grey ware sherds, including two plain-rimmed dishes (dated

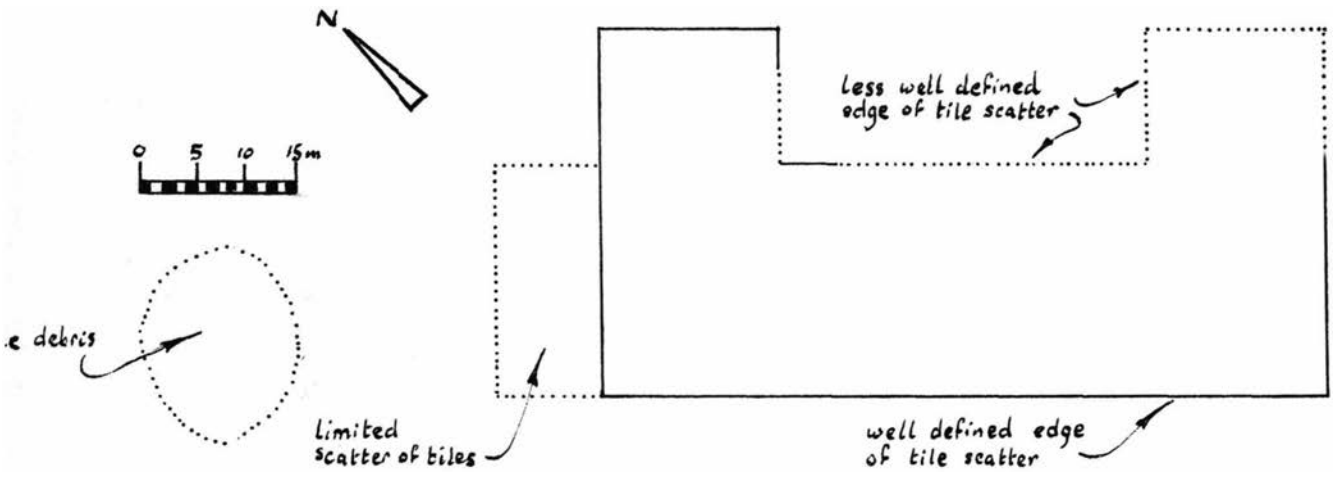

FIGURE 3: Survey plan of the brick and tile scatter

*c.*AD 120–250) and four bead and flanged dishes (dated *c.*AD 260–400+). In the Chelmsford typology (Going 1987) these vessels correspond to forms B2 or B4 and B6 respectively. The three samian sherds belong to the base of a dish which is also burnt (the form is probably of Drag. 18/31), a body sherd belonging to a cup (Drag. 27), and a body sherd where the form is not identifiable. These sherds are all probably late 1st to early/mid 2nd century in date. There is also one Verulamium region white ware rim sherd, perhaps from a jar or 'honey pot'. Lastly there are two Hadham red ware sherds, including the top of a flanged bowl that imitates samian form Drag. 38. This piece is probably 3rd to 4th century in date'.

Metal Finds

The metal artefacts found at the site by detectorist Gerald Springham between 1998 and 2012 have been submitted via the author for formal identification. The span of dates of the finds suggests the site was occupied from the Bronze Age to the Saxon period and later. A number of the finds indicate that the owners were of relatively high status, well travelled and associated with other communities and groups over a wide area of the British Isles.

The finds were predominantly found within the building area and nearby. The earlier dated artefacts were found towards the valley bottom and the later finds to the north of the building. The precise location of the finds was not recorded. Mr Springham noted that lower quality artefacts were found in the area between the building and the valley bottom.

Initially the metal finds were identified by Hilary Major, and the coins by Philip McMichael, of Essex County Council; later finds were sent to the Portable Antiquities team at Colchester Museum who provided summary identifications. Additional comments were made on a bust by Professor Martin Henig of the Oxford Institute of Archaeology. The finds are presented in their groups as found (see Schedules 1–5 below). The finder has retained some finds, though many have been sold, including the bust.

Schedule 1

Copper Alloy

Identifications by Hilary Major, April 1998

1. Roman brooch in the shape of a swimming duck. In poor condition, with the head and catch-gear missing. It is similar to Hattatt 1987, 230, no.1166, but with lozenges rather than circles at the tail end. Traces of enamel survive, but the original colour is not determinable. The type is 2nd century; an example from St Albans comes from a context dated *c.*AD 150–160 (Waugh and Goodburn 1972, 118 no.21). L 29mm.
2. Miniature handled tripod vessel. This is a late medieval/early post-medieval toy. The type is widespread, although not a particularly common find and the majority are dated to the 16th century (Egan 1996, fig. 14). This particular type of toy is unusual in that while most late medieval toys in metal are made of lead alloy, the majority of tripod vessels are copper alloy.

Schedule 2

Copper Alloy

Identification by Hilary Major December 1999

1. Hod Hill brooch, head hinged pin missing (Fig. 4.1). Traces of tinning survive. The bow head narrows to a single, sharply defined transverse moulding. There is a parallel from Canterbury with two transverse mouldings (Mackreth 1995, 975, no.96).
2. Pendant. The object comprises an oval ring with openwork details inside, with a square sectioned tube at the top with a vertical divider. The front and back have almost identical mouldings. The inner edge of the ring is outlined by two raised lines, and the openwork elements have lipped edges and internal lines dividing the areas into cells, as if to take enamel. There is, however, no sign that the object was ever enamelled. The tube has six ribs on one side and seven on the other. The motifs are clearly Late Iron Age, and the object may be similar in date to the Arras terret from the same site (see below). The object was probably used as a pendant on horse harness, although no close parallels have been located.
3. Fragment of an open bell in good condition, Roman but not datable. The form is flattened hemispherical with a lozenge-shaped cast-in loop. There is no trace of the clapper, which may have been iron. Ht. 40mm, 42x33mm. The oval section is unusual, although hemispherical bells are common. The loop is similar to an example from Corbridge (Allason-Jones 1988, 170, no.88).

Schedule 3

Coin of Cunobelin identified by R. Hobbs, British Museum. AE Unit, early 1st century AD. BMC 1998 VA 2105. Wt. 2.49g.

Copper Alloy

Identifications by Hilary Major, May 2000

1. Colchester B brooch in good condition, spring and pin missing. There are two transverse lines at either end of the wings and a small circular hole in the foot. The bow has a D-shaped section and a plain bar transverse line on the foot. L. 44mm. *c.*AD 50–70.
2. Colchester B; head and upper part of the bow, with one wing, half of the spring and the pin missing. There is a copper alloy axis bar. The D-sectioned bow has a low crest with lines either side and probably knurling. This would have been a small brooch, with a complete length of *c.*35mm. *c.*AD 50–70.
3. Head and part of the spring of a strip bow brooch with Colchester type spring gear and small rectangular wings, probably with transverse lines. The spring is incomplete. Probably early 1st century AD. (Fig. 6.3).
4. Nauheim derivative with a narrow strip bow, tapering to the foot. Most of the spring is missing, and the foot was damaged in antiquity. The brooch is bent, possibly deliberately. Late Iron Age–Early Roman. (Fig. 5.6).
5. Hod Hill brooch, head, hinged pin missing. Traces of tinning survive. The bow head narrows to a single, sharply defined transverse moulding. There is a parallel from Canterbury with two transverse mouldings (Mackreth 1995, 975, no. 96). Post-conquest, to about AD 70.
6. Unclassified brooch. The lower bow and foot of a bow brooch. The very narrow foot has a slight knob at the end. The bow has two prominent longitudinal mouldings. This can be seen as a Hod Hill variant, but lacks the transverse moulding at the point where the foot finishes which seems to be an invariable feature of Hod Hill brooches, though sometimes understated, as on Crummy 1983, fig. 5, nos 23 and 30. Probably later 1st century AD. (Fig. 5.4).
7. Enamelled flat bow fragment with a lozenge pattern. Two of the central lozenges contain decayed blue enamel; the other cells have no visible enamel surviving. There was one small lug either side. This is part of a T-shaped brooch such as Hull 1967, 34, no.26, one of a group of brooches from Nor'nour in the Isles of Scilly, which has a similar lozenge pattern. The presence of lugs is unusual (none of the Nor'nour brooches are lugged), and probably the legacy of a Hod Hill ancestry, such as demonstrated by a brooch from Avenches, Switzerland (Ettlinger 1973, Taf. 11, no.17). 2nd century AD. (Fig. 6.7).
8. Two joining fragments of an 'Arras' type terret, well finished and in very good condition. The metal has a dark grey patina and seems relatively

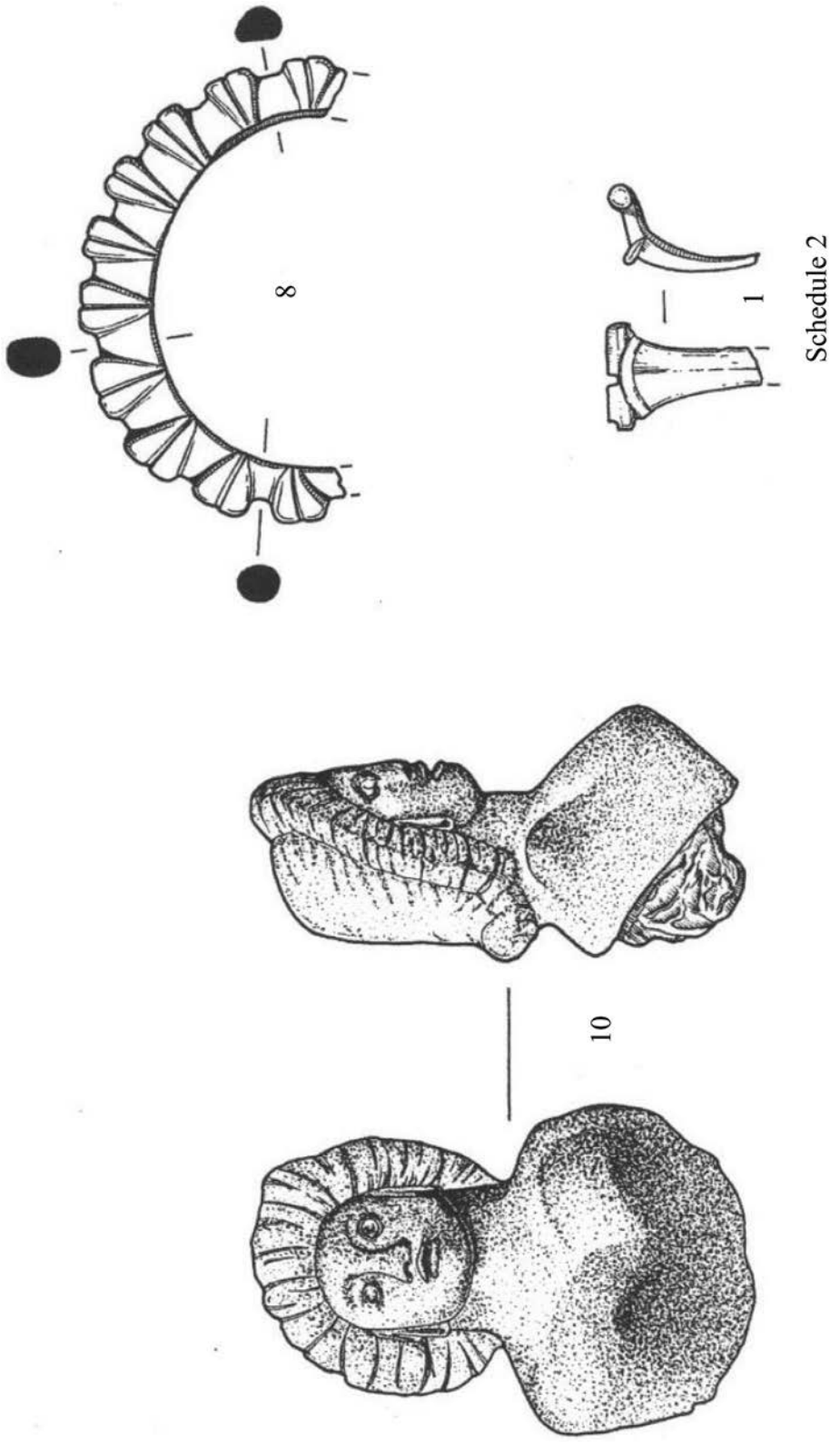

FIGURE 4: Copper alloy objects.

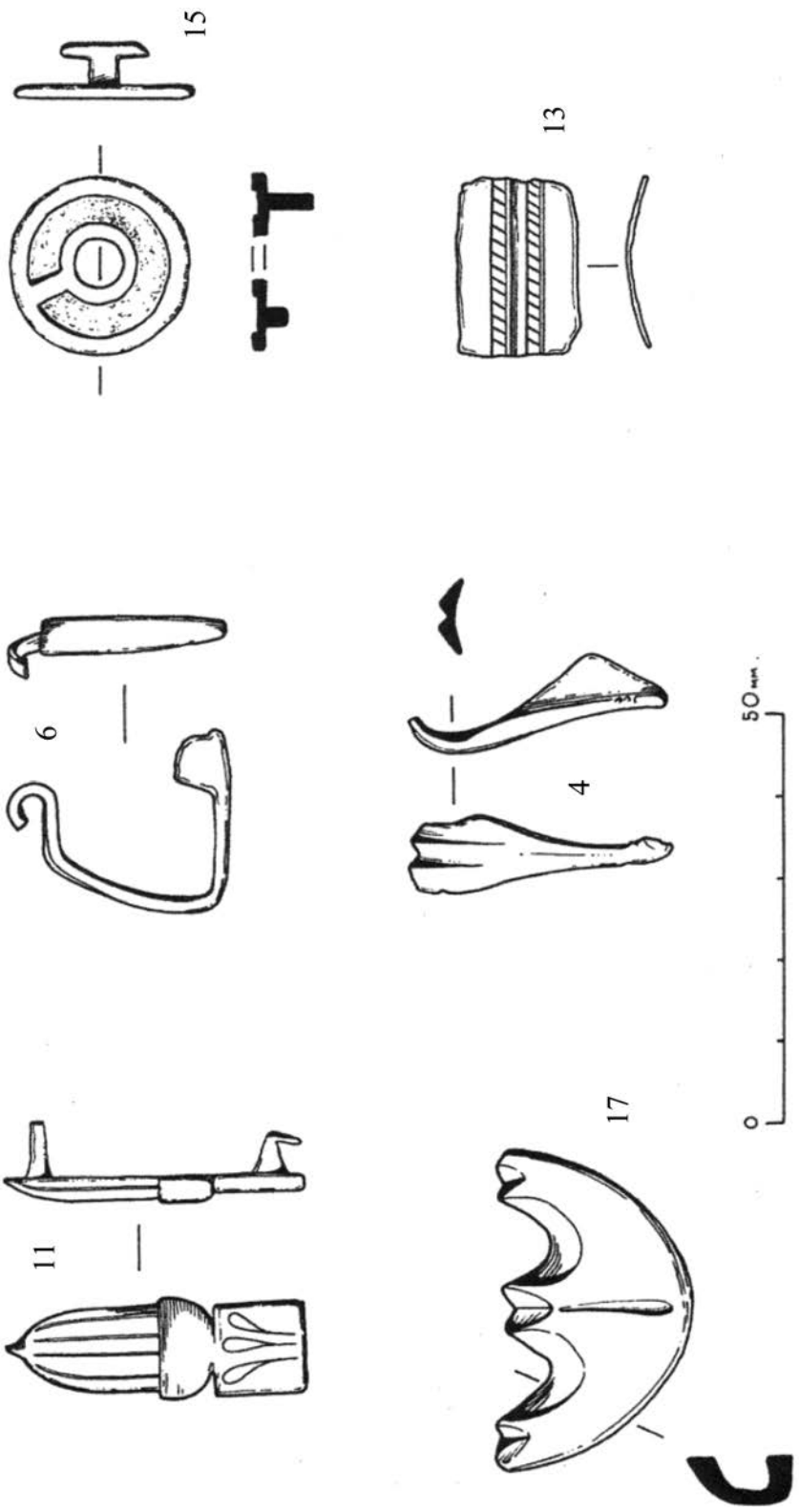

FIGURE 5. Copper alloy finds from schedule 3

heavy, suggesting that it was made from a high lead copper alloy. The terret is on the small side for the type and the thickness of the ring is variable, possibly due to wear. The cross bar could have been made from either iron or copper alloy, but is missing on this example. Terrets are guide rings for reins on carts and at this period seem to have been normally used in sets of five, attached to the yoke. This particular type is named for the finds from the King's and Lady's Barrows of Arras, Yorkshire (Stead 1979, 50), and other examples include a set of five from a cart-burial at Kirkburn, Yorkshire (Stead 1991, 47). The distribution is not confined to Northern Britain. Moulds for the production of similar terrets were found at Gussage All Saints, Dorset (Spratling 1979, 133, fig. 100), from a context dated to the first century BC, and there is also an example from Hod Hill. They are, however, rare finds in the south-east. Davies (1996) does not include 'Arras' terrets among the main types of terret recorded in Norfolk, and the current writer knows of no previous examples from Essex. Sealey (1996) notes that, in general, Iron Age decorated metalwork is not common in Essex, and this fragment is therefore an important addition to the known material. (Fig. 4.8).

9. Pendant. The object comprises an oval ring with openwork details inside, with a square sectioned tube at the top with a vertical divider. The front and back have almost identical mouldings. The inner edge of the ring is outlined by two raised lines and the openwork elements have lipped edges and internal lines dividing the areas into cells, as if to take enamel. There is, however, no sign that the object was ever enamelled. The tube has six ribs on one side and seven on the other. 30x28mm.This object is clearly Late Iron Age in date, but its purpose is obscure. No good parallels have been found. It is most likely that it is a harness pendant. (Fig. 6.9).
10. Female bust, showing the head and upper part of the chest. The surface is in poor condition, with only small areas of the original patina surviving. The base is poorly finished, with the remains of an iron fitting on it, probably a square sectioned rod about 14mm across. This is possibly set in a lead core, as the object seems rather heavy for its size, although no lead is visible. The bust is in the classical tradition, but with a fairly flat and rather coarsely modelled face (the condition of the surface has contributed somewhat to this appearance) and a thick neck. The ears are rather crudely modelled, and may have pendant earrings. The hair has curls framing the face, with a small bun at the back. There is no detail surviving on the crown. Ht. 62mm.This was probably an attachment from a piece of furniture, as has been suggested for a bust of Bacchus from Littlecote Park (Henig 1995, 70). It may be from a couch; Richter (1966, pl. 531–2) illustrates similar fittings on the headboards of couches from Pompeii and elsewhere. The rather flat features and broad neck of the Laver bust are quite closely paralleled on a head of Minerva from Felmingham, Norfolk (Toynbee 1964, 81 and pl. XVII), and they may have a common origin. The Littlecote Park bust is of continental origin, and although the Lavers bust is less finely modelled, it too may be imported. Professor Martin Henig of the Institute of Archaeology, Oxford, commented in a letter to the author 6/5/2000: 'This is indeed a rather attractive object and not unlike the applique of a satyr from Tarant Hinton, Dorset (Henig 1995, 71). A bronze bust from Cirencester is said by Toynbee (1964) to be a Celtic goddess, but Henig and Paddocock identify it as Venus. The problem with the bronze is despite the prominent chest, its sex is not certain, nor is its identity—Satyr or Maenad, most probably despite lack of nebris. The attractive linear modelling of the hair and mask like face, proclaim Romano-British workmanship. It was almost certainly a mount from a chest or other item of furniture. It is perhaps of the late second or third century date'. (Fig. 4.10).

11. Military mount, in poor condition; the details are difficult to see. Most of the surface is covered by a bluish-green patina, possibly decayed niello. It has an acorn-shaped terminal with a square element above. There are traces of white metal plating (probably tin) on the acorn, with four longitudinal stripes of dark blue enamel. The square terminal has three tear-drop shaped panels, two still containing enamel of indeterminate colour (now the same colour as the rest of the surface). The panels were probably outlined in white metal. There are two integral rivets on the back, one now broken. L. 36mm, W. 11m. The form is paralleled on a strap end from Vindonissa, which also has three tear-drop elements (Unz and Deschler-Erb 1997, Taf.63, no. 1764). This decorative motif and the use of niello, is common on military fittings of the earlier Roman period, occurring, for example, on a buckle plate from Corbridge (Allason-Jones 1988, 182, no, 196). (Fig. 5.11).
12. Buckle tongue. A short tongue made from a strip with the end rolled over. The latter end has a single transverse line, and at the point where the loop ends there are a further two transverse lines and notches out of each edge. The decoration is allied to that found on 3rd–4th century strip bracelets, suggesting a similar date for this piece. It could even have been cut down from a bracelet, although there is no definite sign of this now. Bracelets of this type were often cut down and formed into finger-rings; examples from Essex include rings from Great Holts Farm, Boreham, and Colchester (Crummy 1983, 49, no. 1774). (Fig. 6.12).
13. Bracelet. Fragment from an Early Roman strip bracelet, with two bands of rope-effect decoration. L. 22mm, W. 14mm. (See Fig. 5.13).
14. Steelyard fragment with a flat, rectangular section. The end loop and one side loop are present, and it is broken across the third loop. There is no sign of any markings. L. 55mm.
15. Circular enamelled mount with two lugs on the back, one T-shaped, the other broken. There is a central hole. There is no surviving enamel in the single cell with one cross bar. Probably 2nd century. Diam. 22mm. (Fig. 5.15).
16. Circular mount with a hollow back, three lugs and a central boss. A second element, probably a ring, has broken off. W.19mm, L. 22mm. (Fig. 6.16).
17. Pelta-shaped mount with a hollow back, probably military. There are parallels from Gorhambury, Herts. (Wardle 1990, 126, no. 171), from a 4th-century context, and Richborough (Cunliffe 1968, 105, no. 223). W. 39mm, L. 13mm. (Fig. 5.17).
18. Fragment of an open bell in good condition. The form is flattened hemispherical with a lozenge-shaped cast-in loop. There is no trace of the clapper which may have been iron. Ht. 40mm, 42x33mm. The oval section is unusual, although hemispherical bells are common. The loop is similar to an example from Corbridge (Allason-Jones 1988, 170, no. 88).

Lead

Weight, rather battered. An inverted truncated conical weight, with an iron loop. Diam. 16-39mm, ht. 28mm. Probably Roman.

Stone

Fragment of millstone grit, with no full thickness surviving. One surface is worn smooth. Probably part of a Roman quern for grinding corn.

Schedule 4

Coins identified by Philip McMichael, October 2000

Silver

Denarius Date: AD 69–79. Obverse: Laureate head, Right. Legend: (IMP C.) VESPESIANVS. Reverse: Figure seated Left. Legend: (---) TR POT (-) COS. (---)

1. Denarius Date: 201 AD. Obverse: Head, Right. Legend: IVLIA AGVSTA. Reverse: Isis suckling Horus. Legend: SAECVLI (FELICI) TAS
2. Antoninianus (Double Denarius) Date: AD 250–251. Obverse: Draped bust, Right. Legend: (HER) ETRVSCIIA AVG = (Herennia Etruculla wife of Emperor Herennius Etrucillus). Reverse: Figure seated left. Legend: (PVDICITIA AVG)
3. Siliqua (''Urbs Roma''). Obverse: Laureate draped bust, Right. Legend: DN GRATIANVS PF AVG. Reverse: Roma armoured seated Left holding sceptre. Legend: None. Mintmark: TRPS (Trier). Date AD 370–375.
4. Siliqua. Obverse: Diademed draped and armoured bust, Right. Legend: (DNCL IULIANVS (PP) AVG). Reverse: Wreath with VOT X MVLT XX. Mintmark: CONS T (probably Arles) Date AD 360–363.

Bronze

Obverse: Encrusted with corrosion. Legend: (CONSTANTINVS). Reverse: Wolf and Twins. Legend: None visible. Mintmark: Trier, date AD 330 (Urbs Roma)

5. Obverse: Diademed head, Right. Legend: DN GRA ( ). Reverse: Figure Standing facing Left. Legend: None visible. Mintmark: None visible. Date: latter half of 4th century AD

8–13. Barbarous Radiates (six coins) of which Two have: Obverse: Head with radiate crown, Right. Legend: TETRICVS. Reverse: Figure Left. Legend: None visible. Date AD 270–290

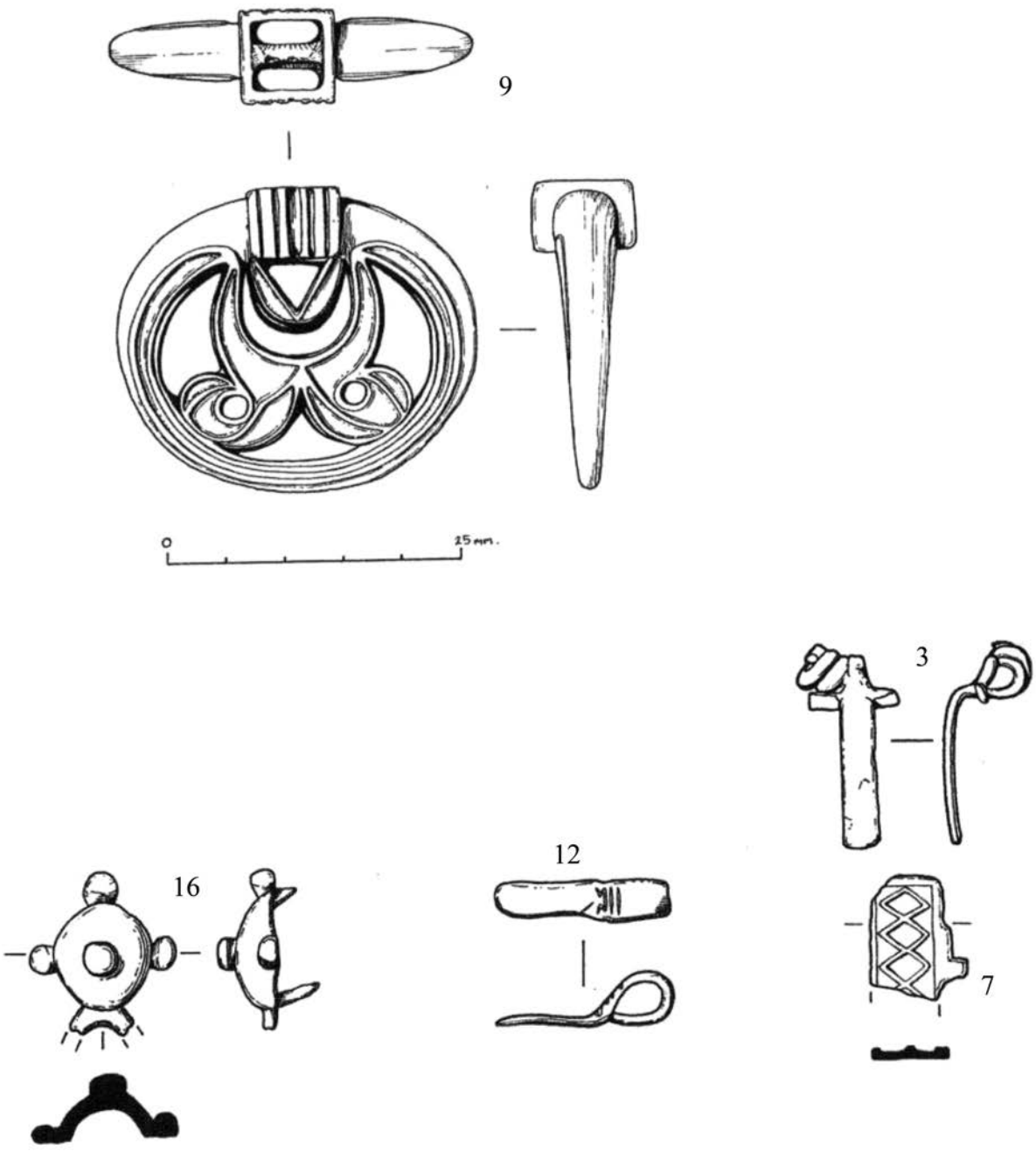

FIGURE 6: Copper alloy finds from Schedule 3

14–16 Three worn coins of late Constantina to Valentinian period. Date AD 360s.
17. One bent coin, 20mm diameter. Date: 3rd century AD
18. One large coin, 29mm diameter. Date: 2nd century AD
19. One large coin, 28mm diameter. Obverse: Hadrian's profile. Date: 2nd century AD
20–24. Five small coins 10-13mm diameter. Date: probably copies of mid-4th century AD
25. Fragment of a coin, on one side. Legend: XX TPIII and on the other side Legend: P II AV

Schedule 5 January 2007

Objects identified on 5 January 2007 by Caroline McDonald of the Portable Antiquities Unit, Colchester, consisted mainly of ten Roman coins, mostly of the 3rd–4th centuries AD.

DISCUSSION

The site is situated in a dominant location within 250m of a fast-flowing year round spring fed watercourse. The metal finds indicate that there was pre-Roman occupation in the area (Finds reports). The tile debris is of Roman date, and its extent indicates a large building, which at the most could have been a winged corridor villa. However, the construction materials were clearly modest: the absence of building stone indicates that it must have been timber framed, with a tiled, or partially tiled roof. Wooden framed buildings supported on horizontal timber sleeper beams often leave little in the way of substantial structural footprints, as is so often the case with medieval houses. The presence of hypocaust tile hints at the presence of a degree of luxury in the form of under-floor heating or possibly a bath house on the site. The negative result of the magnetometer survey is compatible with the

fact that no cropmarks representing the building have been found on aerial photographs. The site parallels the 18ha Late Iron Age and Romano British settlement at Leaden Roding. Geophysical survey carried out at this site showed a Roman road, droveways and ditches, a putative Roman marching camp, but few definitive buildings, although surface brick and tile were found throughout the whole area. This again suggests surface or semi-surface-built buildings (Sharp 2008, 124–135). The structure would have needed to be substantial to support what would seem to have been an extensive and very heavy roof, to judge from the tile spread. A search for the clay pit that supplied the kiln has, so far, been unsuccessful. The finds on and around the site indicate the building was occupied for a long period of time, from the 1st to at least the 4th century. A number of the finds suggest high status.

Relatively few of over sixty Roman villa sites known to date from Essex have provided accurate measurements. However, those obtained at High Laver indicate a very substantial building of approximately 71 x 23m, and apparently one of the largest in Essex. Chignall Villa measures approximately 60 x 50m (Clarke 1998), Finchingfield 21 x 15m (EHER 1588), and Gestingthorpe is 36 x18.4m (EHER 13859, Draper 1985), whereas Little Oakley is 33.7 x 12.7m (EHER 3313), and Rivenhall 60 x 25m (EHER 19117, Rodwell and Rodwell 1986). Timber-framed buildings have also been investigated, for example at Great Holts, Boreham where the main, aisled villa building measured 27 x 15m (EHER 14127, Germany 105).

Until the last thirty years, West Essex was regarded as having few notable archaeological sites. However, research carried out prior to the extension of Stansted Airport (Havis and Brooks 2004; Cooke 2008), the discovery of the settlement at Leaden Roding (Sharp 2008, 124–135), and ongoing excavations around Harlow (Maria Medlycott, pers. comm.) have revealed an increasingly rich and diverse landscape in the Roman period with extensive exploitation of the area (Medlycott and Atkinson 2011).

ACKNOWLEDGEMENTS

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The waste of *Caesaromagus*. Romano-British refuse pits and later features at Moulsham Street, Chelmsford

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In May 2018 Archaeological Solutions (AS) carried out an archaeological excavation on land at 181 Moulsham Street, Chelmsford, Essex (NGR TL 7074 0629). The excavation was carried out to provide for the requirements of a planning condition. The Essex Historic Environment Record (EHER) notes the site lies in the heart of the Roman town of Caesaromagus *and the medieval settlement of Chelmsford. The site itself lies adjacent to Moulsham Street, a major Roman road between London and Colchester, in an area where Roman structures and occupation evidence are common. The excavation revealed a number of post-medieval/early modern features. It also revealed four pits of Romano-British date. These contained significant finds assemblages. The overwhelming character of the activity is suggestive of refuse deposition but this provides interesting information about the character of the surrounding area.*

INTRODUCTION

Modern Chelmsford developed from two historic centres, a Roman town, *Caesaromagus*, to the south of, and a medieval market town to the north of the river Can. The Roman town (EHER 5831) dates from the aftermath of the Boudiccan revolt in the mid-1st century AD, and was established around a fort on the main London to Colchester Road. The fort was abandoned in *c*.AD 70, and a civilian settlement developed along the road that included enclosures interpreted as a 'road station' which, following extensive re-planning of the town between *c*.AD 120–150, developed into a *mansio* (government posting station) within a large official precinct. The town grew to its maximum extent in the mid-2nd century, with defences constructed in *c*.AD 160–175, but the urban centre gradually declined in the mid-3rd to 4th centuries AD. It is generally considered that the Moulsham suburb of modern Chelmsford, south of the rivers Chelmer and Can, is the most likely location for the Roman settlement of *Caesaromagus* (Wacher 1975, 195). Moulsham Street itself developed along the line of the main London to Colchester Roman Road (Wickenden 1992, 49; Cunningham and Drury 1985, 19). Stratigraphic evidence indicates that Moulsham Street developed as a medieval hollow way (Drury 1988, 50). Evidence for activity associated with the Roman precursor to Moulsham Street has been recorded at several locations. This includes a 'military' ditch, a road ditch which was replaced by a series of timber buildings and which, in turn, were replaced with a further ditch and rampart, followed by civilian development of the street frontage at 59 to 63 Moulsham Street and 1st-century timber-framed buildings, early 2nd-century pits and evidence for iron smithing, and mid to late 2nd-century pits at 179 to 180 Moulsham Street (Drury 1988, 51–73).

In May 2018, Archaeological Solutions (AS) carried out an archaeological excavation on land at 181 Moulsham Street (Fig. 1), adjacent to the site which yielded the evidence for 1st-century timber-framed buildings and iron smithing and which also contained pits of 2nd-century date. It was undertaken to provide for the requirements of a planning condition attached to planning approval for an extension and alterations and was required based on the advice of the Historic Environment Advisor of Essex County Council. The excavation had been preceded by a trial-trench evaluation (Fig. 2), the specific aims of which were to identify evidence of Roman structures and settlement activity and/or medieval settlement activity. During the evaluation two pits containing very small quantities of potentially *in situ* Roman pottery were identified, including a fine reduced ware beaker and coarse grey ware jar that suggest that the features may not post-date the 2nd century AD. However, the majority of features identified were post-medieval pits (McDonald 2018).

THE EXCAVATION

Based on the results of the Trial Trench Evaluation (McDonald 2018; Fig 2), further investigation in the vicinity of Trial Trench 1, where archaeological features were recorded in greatest density, was required by Essex County Council. The northern end of Trench 1 was enlarged to cover an area of 8m x 6m. The area opened up for excavation contained Ditches F2002 and F2033; Posthole F2008; and Pits F2004, F2006, F2010, F2012, F2014, F2016, F2018, F2020, F2022, F2026, F2028, F2033 and F2035 (Fig. 3). Based on artefactual evidence and stratigraphic relationships it was possible to identify four distinct phases of activity (Table 1, Fig. 3). This archaeological activity ranged in date from Roman to 19th/20th century and occurred in addition to more recent 'modern' activity.

The Romano-British Archaeology

Four of the recorded features were assigned a Romano-British date. Three of these formed an intercutting cluster towards the north-north-eastern edge of the excavated area (Fig. 3). The earliest of these was F2028. This contained a charcoal-rich basal fill, possibly suggesting that hearth or oven waste was dumped into it, and a firm sandy silt upper fill, similar to the fills of several other features recorded here. Finds from this basal fill were limited in comparison to the upper fill of F2028 and the fills of the other features in this group. F2028 was cut to the south-east by F2026. This contained only a single firm sandy silt fill but a considerable quantity of artefactual material, including two pieces of worked bone and a copper pin (SFs 2-4). Subsequently, the north-western edge of F2026 was cut by F2006, which served to completely obscure F2028 other than in section. This too contained a notable artefactual assemblage, particularly pottery (in excess of 3kg) and slag. To the west of these features was the much smaller Pit F2018

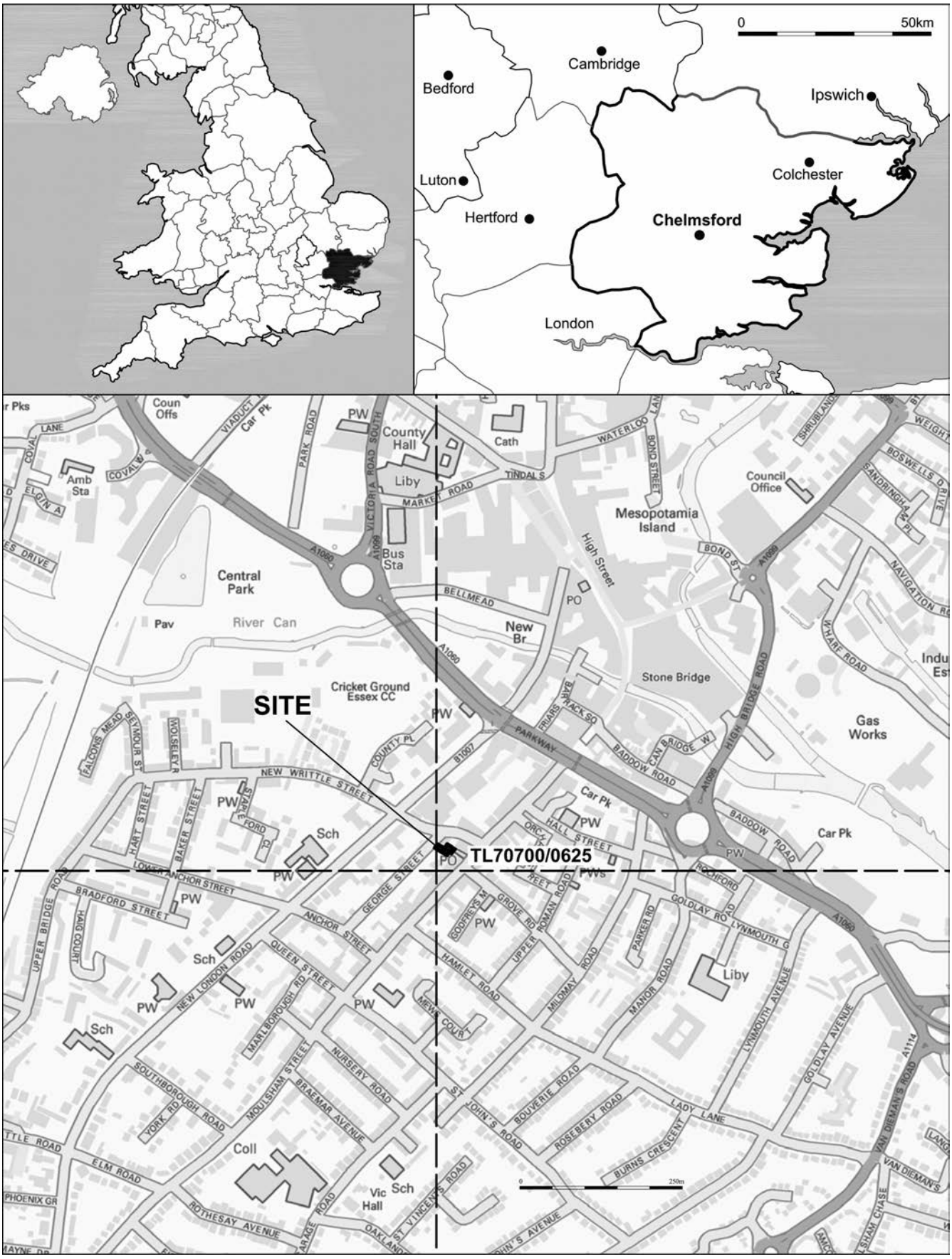

FIGURE 1: Site Location.

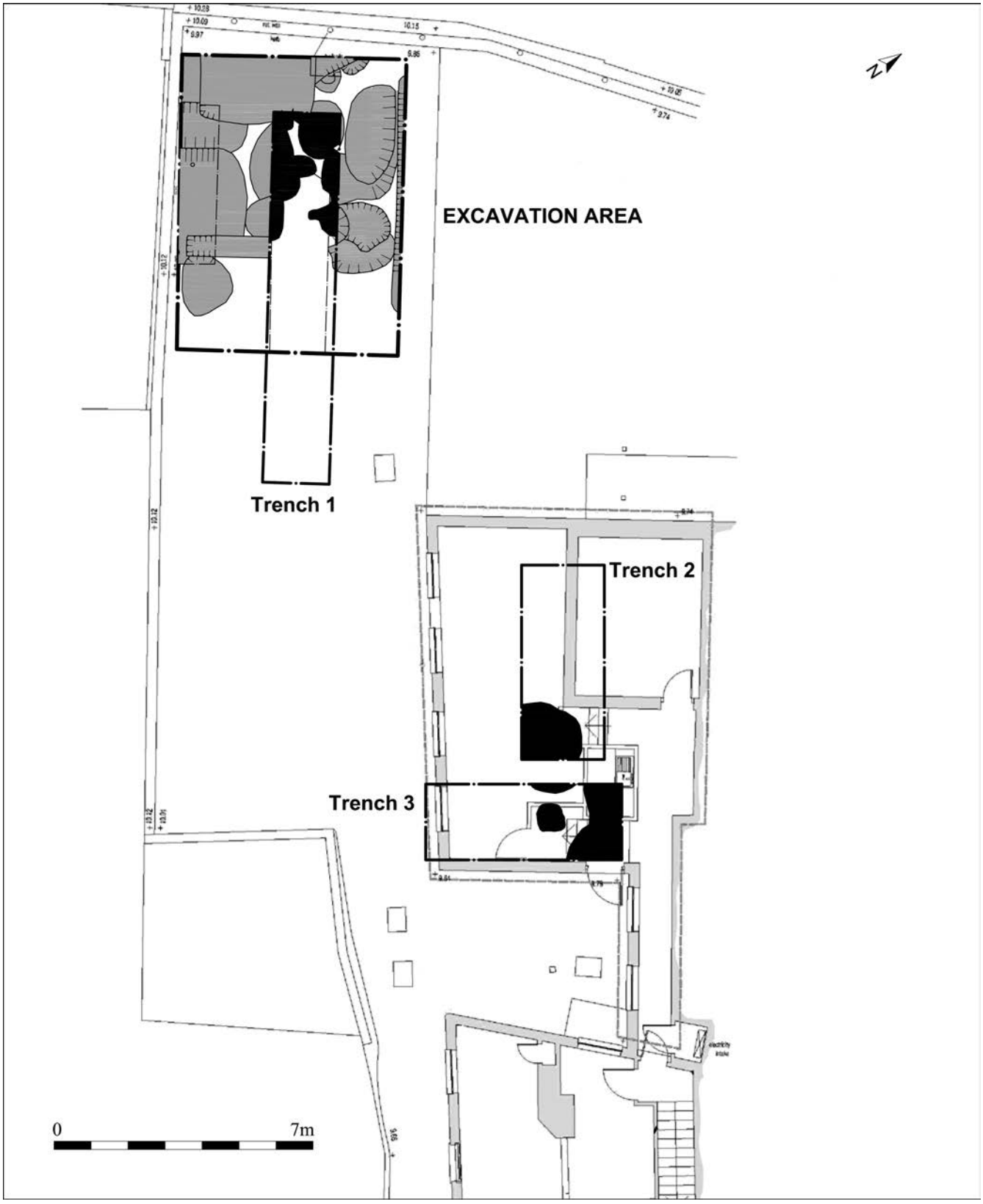

FIGURE 2: Detailed trench location plan

(Fig. 3). This feature was dated as Roman on the basis of two sherds of pottery. It also contained a small quantity of animal bone. It cut the slightly larger F2014, indicating that this feature must have been of Roman date or earlier, and was, in turn, cut by F2016, a feature dated as 19th to 20th century.

The archaeological work (both evaluation and excavation) recovered a total of 496 sherds (9,082g) of Roman pottery in a well-preserved, moderately fragmented but un-abraded condition. The bulk of the Roman pottery, 88.5% by sherd count (91.1% by weight), was recovered from the three intercutting

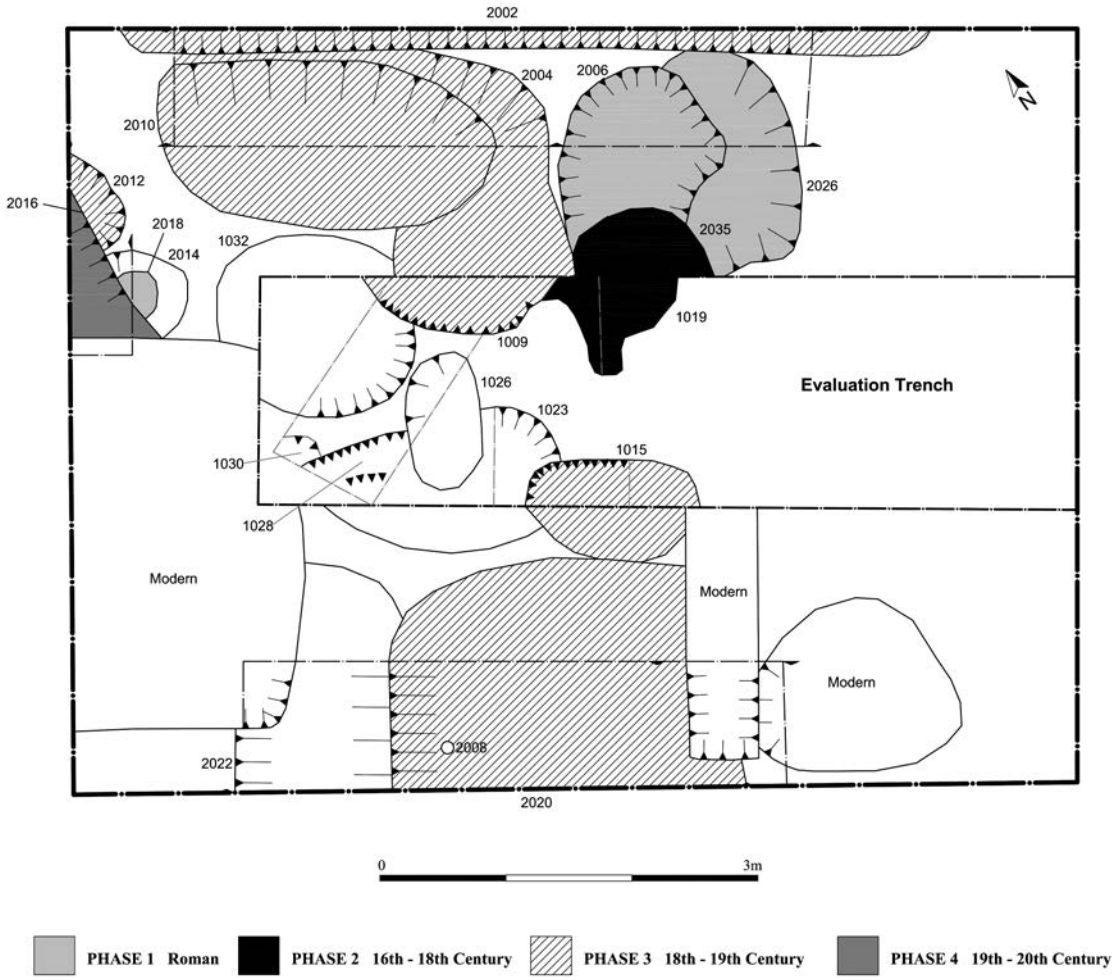

FIGURE 3: Phase plan

Phase	Period	Date
1	Romano-British	Late 1st/early 2nd century AD
2	Post-medieval	16th to 18th centuries
3	Post-medieval to early modern	18th to 19th centuries
4	Early modern	19th to 20th centuries

TABLE 1: Summary of phasing

pits F2028, F2026, and F2006. The pottery from these pits includes samian ware from south and central Gaul (including a mould-decorated bowl), a range of fine ware beakers, coarse ware jars and dishes, storage jars and amphorae, and white mortarium from Colchester. Collectively, these vessels are consistent with deposition in the early 2nd century AD, with some vessels potentially manufactured in the final decades of the 1st century AD, notably the mould-decorated samian ware bowl from southern Gaul, which shows evidence of repair, suggesting that it was a long-lived vessel. The pit group is located 40m north-west of the line of Moulsham Street, the main Roman London to Colchester Road, as it passes through *Caesaromagus*. This assemblage would appear to derive from 'domestic' occupation and focussed rubbish disposal probably related to the roadside enclosures, post-dating the fort, pre-dating the *mansio*, and commensurate with Ceramic Phase 2 within the supply and consumption pattern interpreted following analysis of pottery from the settlement (Going 1987, 108). Elsewhere on the site, *in situ* Roman pottery was limited to isolated sherds, with the bulk of the remainder present as re-deposited sherds of comparable (and probably contemporary) character in post-medieval contexts.

Samian ware accounts for 5.6% of the assemblage by sherd count (3.2% by weight) with the most common source for this material being La Graufesenque in southern Gaul. This includes a mould-decorated Dragendorff 37 bowl, probably from the workshop of *Mercator* or *M.Crestio* and dated *c.*AD 75–90 (Plate 1). Cross-joining fragments of this bowl were recovered from Pits F2026 and F2028. It is of particular interest as it displays two pieces of evidence relating directly to its manufacture and to its subsequent use. The former is that the upper area of the decorative scheme, including the ovolo, is relatively poorly-defined, where the design failed to take from the mould, a somewhat unusual occurrence on the normally highly finished La Graufesenque products. However, the bowl retains a high gloss suggesting that its marketability was not entirely compromised. Evidence relating to its use consisted of two narrow (4mm wide) circular holes drilled through the body of the vessel after firing (*post cocturum*). One was located in the plain zone above the decorated panels, and the other towards the base of a decorative panel (beneath Pan),

PLATE 1: La Graufesenque samian ware mould-decorated Dragendorff 37 bowl with evidence of drilled holes that may represent repair

suggesting that the vessel may have been riveted and repaired. This suggests that the vessel was highly valued by its owners, possibly due to their socio-economic status, and despite the potentially perceived inferiority or flaws of the decorative scheme. This also supports the theory that the bowl may have had a long currency, most likely into the early 2nd century AD, contemporary with the other fine and coarse ware vessels in the pit group.

The bulk of the Roman ceramic building material (CBM) appears to consist of *tegula* roof tile although, with the exception of two flanged fragments, it is limited to small fragments of 25mm thick flat tile. The flanged fragments are associated with small flat fragments contained in early 2nd century AD Pit F2026, with further fragments in associated intercutting Pit F2028, and residual small fragments in post-medieval Pits F2004 and F2010. The flanges are relatively robust with slightly rounded edges and a near square profile, and a height/width of 30mm, which is thicker than the body of the tile. In addition to the *tegula* fragments, Pit F2026 also contained fragments from a single Roman brick with a thickness of 40mm, which suggests it was a *bessalis*-type brick. The primary use of *tegula* is for roofing, whereas *bessalis* were used to construct *pilae* to support the floor of a hypocaust heating system. It is feasible that a structure of such stature was present in the near vicinity. A complete *tegula* roof tile would weigh in excess of 5kg, thus the entire assemblage is equivalent to less than a single complete *tegula*. Several hundred of these would be required for even a modest urban building. Therefore, it is highly likely that these building materials were utilised for alternative functions, if they do not simply represent re-distributed detritus. Hearths, ovens and even small chimney breasts in or associated with less substantial timber-built structures may have incorporated low quantities of CBM, while such brick and tile may have been used for flooring or bonding courses in structures with earthfast, daub or rubble-built walls, such as the early Roman timber building and possible iron-smithing activity recorded adjacent at 179–180 Moulsham Street (Drury 1988, 71).

In excess of 5kg of slag or metalworking debris was recovered from intercutting pits F2028, F2026, and F2006. The material recovered from these three Roman contexts appears, with the exception of a small number of heavily corroded and concreted small iron objects, to be iron-working slag. Some of this material, particularly that from F2006 but also some elements from the assemblages recovered from F2026 and F2028, is reminiscent of furnace slag material which accumulates within the furnace during the smelting process. However, evidence from the surrounding area and some aspects of the assemblage itself cast doubt upon this. In an urban location such as this, it is highly likely that there was some degree of metalworking being carried out. In such a location smithing, perhaps associated with the Roman road station and/or *mansio*, would appear more likely than smelting activity. Evidence for smithing has previously been

recorded at the adjacent 179–180 Moulsham Street (Drury 1988, 71). This material included hearth lining (Bayley and Biek 1988) which is also evident in the material recovered from Pits F2006, F2026 and F2028 at the current site. The presence of two fragments representing possible smithing hearth cakes supports the premise that the majority, if not all, of the material recovered from the current site represents smithing waste. Nonetheless, the production of iron from prepared ore may well have occurred in Roman Chelmsford, perhaps to supply small quantities to the road station or *mansio*. A small quantity of possible smelting waste has been recovered from other locations in Chelmsford (Bayley and Biek 1988). No clear evidence for smithing apparatus was recorded either at this site or the adjacent 179–180 Moulsham Street (Drury 1988, 71). However, this is not unusual as few such features have been recognised (Crew 1996). The quantity of slag present in these Roman features is fairly small and is probably insufficient to suggest that this was the location of a smithing workshop. Even the *c*.17kg recovered from 179–180 Moulsham Street may be small in comparison to what the output of an established smithy might be considered to produce. The material present in Pits F2006, F2026, and F2028 is, therefore, likely to have made its way into these features as refuse material along with much of the rest of the artefactual material recovered from them.

The Roman features contained 166 pieces of bone that weighed a total of 2,209g, amounting to 28% of the overall faunal assemblage. Sheep/goat were the most frequent, with smaller numbers of cattle and pig/boar. A larger group of sheep/goat bones was recovered from Pit F2026, fill L2027, with remains of four individuals, including adults, but mostly from juveniles. The ovicaprid bones in fill L2027 included seventeen metapodials along with limbs and mandibles, most of which showed a range of skinning and meat use. Butchery evidence from these individuals suggests that they represent a dump of skinning waste.

The mixed nature of the finds assemblages, therefore, suggest that these features had been receiving waste or refuse material from a variety of locations, perhaps in the surrounding area. Their composition suggests that domestic occupation occurred in the vicinity but that there was also activity associated with workshops and small-scale industry (*e.g.* blacksmiths and butchers or potentially tanners) in the same area. Some elements of the archaeobotanical assemblage recovered from the Roman features are suggestive of disturbed ground or waste ground. It is conceivable that such species of plants grew in an area that was set aside for refuse disposal. The identification of nitrophilous species, such as nettle, common mallow, dock, goosefoot and henbane, might be attributed to good soil fertility brought about by the deposition of organic refuse at this location. Elements of the plant macrofossil assemblage which suggest crop processing or the presence of thatching materials are also likely to have arrived at this location as refuse material. The evidence of fine-sieving, late stage crop processing remains indicates that de-husking and final sieving of spelt wheat, to prepare it for consumption, appears to have taken place on a domestic scale in the vicinity. More generally, the archaeobotanical evidence indicates the use of barley and spelt wheat, both common components of the Roman arable economy in England (*e.g.* Carruthers 2008, 34.9–34.15; Murphy 2003). However, it is likely that this is an incomplete representation of the plant-based economy, which is likely to have incorporated other field and garden crops, as well as potentially imported plant foods (Gascoyne and Radford 2013, 140–142; Murphy 2003).

At the adjacent 179–180 Moulsham Street site, the first of the early 2nd-century pits was suggested as having possibly been initially excavated in order to provide brickearth for daub (Drury 1988, 71). It is conceivable that the stratigraphically earliest of the features at the current site (F2028) was excavated for similar reasons and that it later became used for refuse disposal. The same cannot be said for the stratigraphically later pits in the sequence (F2006 and F2026) as it would have become quite apparent early in the process that those carrying out this excavation were digging into earlier refuse material. The pit at the adjacent site also contained five complete pottery vessels, perhaps arranged in a deliberate pattern (Drury 1988, 71). Nothing to suggest deposition of this kind was recorded at 181 Moulsham Street. However, as many societies view rubbish and refuse as being a source of symbolic fertility and regeneration, at least in part due to its potential for use as manure (Brück 1995, 255), and as its deliberate curation for use in acts of symbolic deposition is known from other periods (Garrow 2006) it cannot be conclusively ruled out that there was not symbolism and meaning in the way that refuse material was handled and disposed of in the Romano-British period. Clarke (2000, 24), for example, asserts that the character of finds assemblages recovered from pits at the Newstead Roman military complex is redolent of prehistoric structured deposition.

One of the later 2nd-century pits at the adjacent site was considered to have originally had a timber lining and displayed a fairly complex history of infill. Another appeared to contain a fill consisting mostly of burnt daub (Drury 1988, 73). Complex stratification of fills was not observed at the current site. The only feature to contain more than one fill was the stratigraphically early F2028, the basal fill of which, L2030, was charcoal-rich indicating that a significant quantity of burnt material had been deposited into the pit along with other material. The adjacent site appeared to contain pits that were more complex in their construction and their patterns of infill and which had identifiable primary functions other than as refuse pits. The overall homogeneity of fills in each of the three pits at the current site and the lack of evidence for any other function than as receptacles for rubbish suggests that there is a clear difference in the types of activity represented at each site with 181 Moulsham Street simply containing evidence for the disposal of waste material. However, to echo what Dicus (2014, 75) has said about refuse deposits at Pompeii, while the refuse material present in Pits F2006, F2026 and F2028 represents secondary deposits composed of material originally accumulated at perhaps a number of locations in the surrounding area and therefore offers little information about activity at the current site (other than its use for refuse disposal) it does provide information about activity in the immediately surrounding area. The overall impression is that this site was receiving refuse from both domestic and workshop/small-scale industrial contexts and that there were not significant levels of wealth present. The surrounding area appears to have been one in which working people, involved in trades such as blacksmithing, butchery, and tanning lived and worked during the 2nd century AD. In combination

with evidence from the surrounding area, it would appear that buildings in this area were of wooden construction with thatched roofs although some smaller structures in this area may have been constructed of (potentially reused) brick and tile. This accords with what the Chelmsford Borough Historic Environment Characterisation Project (Bennett *et al.* n.d., 8) says about this area, stating that there are indications of iron smithing and that a large area east of Moulsham was given over to cattle processing, butchery, tanning and manufacture of horn and bone objects.

Later activity

Cutting the south-western edge of the cluster of intercutting Roman pits was F2035 (Fig. 3), a feature recorded as F1019 and dated as Roman during the preceding trial trench evaluation. F2035 contained glazed and unglazed late post-medieval red earthenware (which is current from the 16th century onwards) and English stoneware (current from the 17th century onwards), while the absence of factory-made white earthenware might suggest an earlier date within this possible range. The artefactual evidence therefore suggests a date of 16th to 18th century possibly focussed on the 17th century. This evidence was, however, only present in very small quantities. Although fairly regular in form to the north-east, that part of the feature recorded within the trial trench was amorphous in form. No finds were recovered from the basal or secondary fills.

In 1591, the frontage of the adjacent site was occupied by a house with a single-storied hall flanked by a jettied cross-wing on the north-east, with an apparently identical building adjacent to the south-west. These could well have originated early in the 16th century (Cunningham and Drury 1985, 36). The date of these buildings is broadly consistent with that of F2035 and this suggests that this small feature might have been related to these buildings.

Excavation revealed six features which have been dated to the 18th to 19th centuries (Phase 3). Two of these, F2002 and F2033, were recorded as ditches but they extended beyond the north-eastern limit of excavation and could equally have been square-sided pits (Fig. 3). Immediately adjacent to these were the intercutting, sub-oval features F2004 and F2010 (Fig. 3). F2004, with its long axis aligned broadly north-east to south-west cut the north-western edge of the Phase 2 Pit F2035 and was in turn cut by the broadly north-west to south-east aligned F2010. F2004 was recorded during the preceding evaluation as F1009. Less than a metre to the west of F2010 lay Phase 3 Pit F2012, a notably smaller feature than the majority of the other features assigned to this phase. It was cut by the 19th- to 20th-century (Phase 4) F2016 and lay adjacent to the small Roman Pit F2018. At the south-western edge of the excavated area was the large and notably deep (in excess of 2m) Pit F2020, which extended beyond the limits of excavation and which cut the south-western edge of the Phase 3 Pit F1015 which was initially identified during the preceding evaluation.

Ditch F2002 contained Staffordshire-type slip ware and Staffordshire type stoneware, which together with Transfer Printed ware and Creamware suggests a late 18th- to 19th-century date. The presence of post-medieval black earthenware in F2020 suggests that the date of this feature may extend into the 19th century but other material suggests that 18th century may be a more likely date. F2004, F2010, F2020, Ditches F1011, F2002 and modern Soakaway F1007 contained red brick with dimensions of ?x110x55mm with a slightly rough base and regular, slightly rounded arrises. The bricks in Pit F2010 and modern Soakaway F1007 also include two fragments with a blue-grey glaze on their header and upper faces, suggesting that they were 'place' bricks. Both types of brick are characteristic of types recorded in Chelmsford and Essex associated with buildings of late 17th- to early 18th-century date (Ryan 1996, 95).

The excavation of service trenches in the footpath outside 179–80 Moulsham Street revealed a well-built structure of large red bricks, probably of *c.*1784–1850 (Cunningham and Drury 1985, 36). This date is broadly consistent with the Phase 3 features recorded during excavation at 181 Moulsham Street. The features of this date do not appear to represent the remains of buildings although the regular form of some of them, particularly F2002 and F2020, suggests that these features may have functions other than simple refuse disposal. Historical maps (not reproduced here) indicate that the area was residential in character by the 19th century and it appears most likely that the features representing both Phases 3 and 4 are associated with the development of housing in this area or activity during its occupation.

CONCLUSION

The Roman town of *Caesaromagus* dates from the aftermath of the Boudiccan revolt in the mid-1st century AD, and was established around a fort on the main London to Colchester Road. The civilian settlement developed along this road (now Moulsham Street) and a side road off to Heybridge and Wickford, with a *mansio* and bath house and temple precinct. The mansio and its bath house were rebuilt and enlarged in the mid-2nd century, with substantial earthen defences built around 160–175AD. Excavation at 181 Moulsham Street revealed four pits (F2006, F2018, F2026, F2028 and F2035) of probable 2nd-century date, therefore representing activity broadly contemporary with the renovations carried out to the *mansio* and its appurtenances. These pits contained significant finds assemblages. The overwhelming character of the activity is suggestive of refuse deposition. The character of this material is, however, of some interest, suggesting that this site was perhaps receiving refuse material from both domestic and craft/industrial contexts. This provides interesting information regarding the character of the surrounding area and the organisation of the Roman settlement.

The later activity recorded during the excavation would appear to relate to the development of this part of Chelmsford in the late post-medieval and early modern periods. Although a small number of sherds of residual medieval pottery were recovered, no evidence of this period was recorded despite the potential of the site to contain such evidence based on the understanding that Moulsham Street developed along the line of the main London to Colchester Roman Road as a medieval hollow way (Wickenden 1992, 49; Cunningham and Drury 1985, 19; Drury 1988, 50).

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The Monasteries of Ely and Barking and their Essex Estates compared

James Kemble

The great Saxon monasteries of Barking and Ely share considerable similarities, but significantly different destinies. The two bear comparison by their similar foundation dates, royal connections, disruptions and consequential interactions with the national state. This paper traces the early medieval foundations, history, archaeological investigations and vicissitudes of the two monasteries and their Essex estates. These are discussed in the light of wider national events and of their internal practices which contributed to their respective prosperities.

INTRODUCTION

The great lantern of the cathedral of Ely rises imposingly above the Fens of Cambridgeshire. It is the third such church since the building of a monastery for monks in the reign of Æthelberht, King of Kent, in the early 7th century. Before the draining of the fens in the 17th century, the Isle of Ely was surrounded by marsh, reed-beds, slow-running rivers and meres making it inaccessible except by shallow-draught boat and causeways unknown to would-be raiders. The Isle, intended as a place of solitude, retreat and remoteness, became embroiled in national upheavals. The Essex monastery of Barking, by contrast, nearer to London, though built at the edge of marshland, seems to have been less isolated physically but nevertheless more remote from national affairs. Its visible remains above-ground now consist of stone foundations of the abbey church, part of the reconstructed boundary wall, St Margaret's Church, once a chapel for local people within the grounds of the monastery, and one of the three entrance gates to the abbey precincts known as the Curfew Tower (Plate 1).

ARCHAEOLOGY

Both Ely and Barking share a common character in that, in each case a small, Early Saxon church was replaced by a larger and more opulent later medieval abbey. The church on the Isle of Ely is reported to have been at *Cratendune* some 2.8km southwest of the 12th-century Ely cathedral, north of Bedwell Hey Farm (Hall 1996, 71). During levelling of a hillock or dun above the fen at Witchford Aerodrome, a pagan cemetery of about thirty inhumations with grave goods, dating from the 5th to 7th centuries, was uncovered at a depth of one metre (Fowler 1948, 70; Hall 1996, 36). Nearby was found a jewelled Saxon pendant of the 8th century. The name Bedwellhaye, 'enclosure of the spring by the chapel', documented in 1548, may retain a memory of a small prayer-house remaining here after the monastery had been moved to Ely (Lethbridge 1952, 2).

The remains of Barking monastery lie to the east of the River Roding, but a rectangular building which was probably the former Saxon church has been excavated 15m to the west of the 12th-century abbey, right on the edge of the floodplain of the river. Bede's description (HE, iv, 10) of it being built in 'a narrow place liable to floods' suggests a site between the River Roding and a tributary, tentatively called the 'Old Hawkins River', which may have been a diversion from the Roding north of the London Road for a mill leat or the garderobe drain of the monastery. A wooden pile at the edge of this 'river' was dendro-dated AD 660–880. While the Saxon church at *Cratendune* has not yet been identified, that at Barking was a rectangular two-celled timber building on sleeper beams measuring 5 x 30m, aligned east-to-west (Reaney 1935, 94; Hull 2002, 185).

The site of this presumptive Early Saxon church at Barking contained a 1st-century cremation urn and may have been chosen because of a pre-Christian focus. Documentary evidence for the burial in the Saxon church at *Cratendune* of the founder abbess St Æthelthryth is paralleled at Barking for the burial of its first abbess, St Æthelburga. Lockwood (1986, 14) has suggested that the north-to-south aligned timber building at Barking with early 8th-century coins scattered in the floor immediately adjacent to the south of the church may have been the founder's shrine. Both at Ely and at Barking the founders were reburied, no doubt with due ceremony and devotion, in places of prominence in the later medieval churches.

The objective of providing a more prestigious and devotional place for the founders' resting places was the same in both monasteries but the methods differed. At Ely, Æthelthryth's shrine was placed at the extreme eastern end of the church when the Norman apses were replaced by a six-bay presbytery extension eastwards in 1252. At Barking, however, St Æthelburga was reburied in the 13th century to the east of the apsed 12th-century presbytery in the more narrow Saint's Chapel; this was built in three equal aisles with three bays of which the founder probably occupied the middle one which extended to a lady chapel two bays further east. The length of the nave at Barking was 50.5m whilst that at Ely is 62m, while the overall length of the church at Barking was 103m and at Ely is 163m (Bentham 1812, 287–8; Clapham 1913, 81–2).

The buildings around the two medieval churches served similar functions but their arrangement was different. The monks' cloister at Barking was on the north of the abbey together with the Refectory, Warming House, and Infirmary. The Chapter House was on the north of the north transept. The Dorter (or dormitory) lay to the northwest and the Reredorter (latrine) further west discharging into the 'Old Hawkins River' (Clapham 1913, 82–3; Hull 2002, 185).

At Ely the cloister lies to the south of the church. The large Lady Chapel, 30.5m long, was built *c.*1322, perhaps causing the Norman central tower to collapse. It is unusually sited northeast of the north transept, connected to the north aisle by a corridor. Off the south transept are the Chapter House, Vestry and the Library. Alan of Walsingham constructed a new central tower over an enlarged crossing which was topped by an octagon and lantern. The Infirmary has been dendro-dated to 1328 and the Prior's complex to 1187 (Arnold *et al.* 2004; Carey 1973, 11). Also, to the south was the Bishop's palace,

PLATE 1 St Margaret's Church and Barking Abbey foundations

Priest's House, Refectory, Guests' Halls and stables. William the Conqueror built a motte and bailey castle 250m south of the abbey after his suppression of the rebellion by Earl Morcar and Thegn Hereward. The castle overlooked the abbey and surrounding settlement but, because of the king's favourable relationship with Barking, he felt no need to build a similar fortification there.

Barking Abbey Gardens are now at the middle of a busy London suburb, though once a quieter place close to the meandering River Roding. Much of its estate lay in the marshland which suffered inundation, disastrously in the floods of 1375–7. Repeated flooding, in spite of attempted repairs of dykes, led to loss of meadow, pasture and fields. The losses were so great that financial relief was given from certain taxes and obligations, and allowance made for access to woods for rebuilding (Galloway 2012, 68).

Documentary evidence at Barking is of an entrance from the river in the southwest, and excavations suggest a jetty (Hull 2002, 164). In the 13th century a mill lay close to the precinct. It had mills also at Hockley, Bulphan, Ingatestone in Essex and at Slapton in Buckinghamshire (Loftus and Chettle 1954, 63). Both Ely and Barking have evidence of industrial activity within and beyond the precincts. At West Fen Road, west of Ely cathedral, a settlement active from 8th to 15th century when it became deserted, may have supplied the abbey builders with material and services during its main construction phases (Mortimer 2005, 130). A radar survey at the King's School close to the castle mound suggests a possible former quarry which may relate to the abbey building works (Appleby *et al*. 2010).

At Barking to the east of the River Roding floodplain lead and glass works and parts of the probable hospital have been excavated. In 1985, the medieval boundary wall, a garderobe and its drain were found to cut the Saxon buildings (MacGowan 1987, 35; 1991, 150; 1992, 110). Three Saxon wells contained Ipswich Ware and their timbers, which contained tenon and mortice joints, were dendro-dated to AD 675–800.

It seems likely that both abbeys relied on supplies brought by boat, to Ely along the Old Croft River and to Barking by the Rivers Thames and Roding. A Roman road has been traced from Cambridge north-east to Ely though to what extent it was usable in the Saxon period is unclear. The Roman road from London to Colchester passed about 2km north of Barking Abbey; it was clearly in use in the early 12th century when Matilda, wife of Henry I, diverted the road and had a bridge built over the river Lea at Stratford replacing the old ford, and one over the Channelsea river. She gave manors to the abbess of Barking to maintain and repair the bridge and highway, for which Gilbert de Montfichet (died *c.*1187) transferred responsibility to Stratford Langthorne abbey with obligations (Lysons 1795, iii, 489).

FOUNDATION AND VIKING DESTRUCTION

Liber Eliensis, a book written in stages up to *c.*1170 by a monk at Ely, contains much of the early history of Ely monastery. Bede (HE iv, 10) refers to a similar book relating to Barking from which he obtained much of his information; if it still exists, it has not yet been identified. It is possible that it is still undiscovered at Hatfield House, where the Old Palace was built by John Morton, Bishop of Ely, in the 15th century.

The sending by Pope Gregory of a mission to Britain in AD 597 under the reluctant Benedictine monk Augustine was probably prompted by Bertha, the wife of King Æthelberht of Kent, himself a pagan but open to his wife's Christianity. Augustine's monks built small churches at Rochester (dedicated to Andrew the Apostle) and in London (dedicated to St. Paul) which was part of Æthelberht's nephew Saebert's East Saxon kingdom.

The death of King Æthelberht and with it his overlordship of southern England in 616 seems to have created a reverse to the spread of Christianity, but the accession in 631 of Sigebert to the East Anglian throne offered a challenge to pagan resurgence. Sigebert's successor, the Christian king Anna, was in conflict with the pagan Mercian king Penda over control of the territory of the Middle Angles and Gyrwe which lay between them, and Anna was killed in battle *c.*653.

In the fens of what was to become Cambridgeshire, it was no doubt Augustine's and his successors' initiative which prompted the building of the 7th century church at *Cratendune* (Chronicon 1691, 594). During this conflict, the first church at *Cratendune* was attacked and destroyed by Penda. Though the foundation charters of Ely monastery have not survived, Bede (HE iv, 19) records that Tondberht, Prince of the South Gyrwas, granted Æthelthryth, his wife and the daughter of Anna, the Isle of Ely. *c.*673 Æthelthryth built a church and convent on a more commodious site on the Isle, to which a holy community of men and women was attracted; she was consecrated abbess by Bishop Wilfred (LE, i, 15). The uncle of Æthelthryth, Æthelwald, having succeeded Anna to the kingship of the East Angles, impinges on East Saxon history. He sponsored the king of the East Saxons as godfather through baptism by St. Cedd whose mid-7th-century church is extant at Othona, Bradwell-on-Sea (HE iii, 22).

Extant charters (S: 1171, 1246, 1248) show that almost contemporary with Æthelthryth's convent at Ely, Barking monastery had been founded less than a decade earlier, also as a joint community for men and women, *c.*666, by Erkenwald, later Bishop of London, probably a member of the household of Swithfrith, King of Essex. It was endowed by Swithfrith with forty hides (a unit of land tax, usually about 120 acres) of land and by Œdilred, possibly a sub-king of Surrey, with seventy-five manentes (hides) of Rainham, Beddanhaam and Bercingas (Barking), Dagenham, Angenlabeshaam (unidentified) and wood at Wyfields in Great Ilford, plus 10 hides of Celta by the Mardyke stream, which may have included Warley, Bulphan and Stifford (Yorke 1990, 53; Hart 1971, 9). Fifty-three hides at Isleworth were given by King Æthelred of Mercia, seventy hides at Battersea by the Wandle river in Surrey were granted by King Ceadwalla of Wessex, a hide in London with forty hides in Swanscombe and Erith in Kent were granted by King Wulfhere of Mercia. A lady Quoengyth gave a settlement above London (S:1171, 1246). Its first abbess was Erkenwald's sister Æthelburga. Thus, both *Cratendune* and Barking were royally endowed communities of men and women headed by an abbess, both of whom were of royal kindred.

The Barking Charter that Erkenwald obtained in 687 makes it clear that the monastery and its monks were free to make their own decisions about election of abbesses, ordnance and decrees without external interference. Æthelthryth's charter for Ely had the same freedoms, as was the custom (HE iv, 18). This was to become a source of frustration in the 12th century to the bishop of Lincoln in whose diocese Ely convent lay, and the freedoms were frequently disregarded by the sovereign and his magnates.

When Abbess Æthelthryth died at Ely from a swelling of her jaw in 697, a spring began to flow from her burial-place, which became a site of veneration and miracles (LE i, 31). Her sister Seaxburgh was installed abbess. She instructed a few of her community to find a suitable tomb for her dead sister; rowing upstream along the river Cam they came across a Roman stone coffin at *Grantecester* (not modern Granchester but probably near Castle Hill by Magdalene Bridge, Cambridge); it was brought back to the Isle and Æthelthryth's undecayed body was reburied in the church (LE i, 26). The repeated medieval reports of miraculously preserved corpses of the saints many years after burial suggests that some kind of preservative would have been applied to bodies.

Abbess Æthelburga died at Barking soon after her brother Erkenwald had died in 693 during a visit to her. She was succeeded by the nun Hildelith who may have been a daughter of Æscwin, king of Wessex, and who had come from Normandy as a tutor for Æthelburga. She died *c.*720 (Loftus and Chettle 1954, 13).

The fate of the Isle of Ely during the reign of Æthelred I (866–871) is vividly described in *Liber Eliensis* (LE i, 39–41). The monastery was looted by Vikings then torched; nuns and monks were put to death. It is less clear to what extent the community at Barking was affected though London was also attacked at this time, and it is unlikely that Barking was immune. Lysons (1798, iv, 795) writes that, at the time of St. Edmund's martyrdom in 869, Barking monastery was burnt by the Danes, though no archaeological evidence has been found for extensive fires.

We do not know with any certainty the names of Barking's abbesses between *c.*720 and *c.*963, although, from charter evidence, Æthelgifu and Eawynn are possible candidates, for these two 'religious women' were granted land by King Eadred in 946 (Kemble 2014a, 207). A break in the pottery sequence from mid-8th century until the 10th century is suggestive of a hiatus of activity if not of desertion. The recovery of southern England from the Danes by King Alfred (871–899), his son Edward the Elder (899–924), Æthelstan (924–939) and Edmund I (939–946) was a period during which a few of the survivors of the Ely massacres returned and patched up the chapels to their best ability, though they must have been very old by that time. There was a community at Ely during King Edmund's brother Eadred's reign (946–955) as he and his mother Eadgifu gave land at Stapleford near Cambridge to Ely in 955/6 (S: 572; LE ii, 28, 43).

THE REVIVAL AND GRANTS

Edmund's younger son Edgar coming to the throne in 959 at a time of relative peace produced a revival of the churches under the guidance of competent ealdormen like Æflhere of Mercia,

Byrhtnoth of Essex, Æthelwold of East Anglia, Archbishops Dunstan of Canterbury, Oswald of York and Æthelwold, Bishop of Winchester. This was a period of great monastery building and reform when benefactors granted land and possessions for their souls. Æthelflæd, second wife of King Edmund, granted the reversion of one of the Woodhams to Barking and Fen Ditton to Ely (S:1494).

The implication by Lethieullier (1759, 28) that Barking was restored by King Edgar and Archbishop Dunstan *c.*963 requires modification. 'New' charters found at Hatfield House record grants to the abbey and its nuns in 932 (of ?Bowers Gifford), in 946 (of Hockley, Shopland and Tollesbury) and in 950 (of estates in Stifford and Chingford) (Kemble 2014a, 205; S: 1793). A bequest by ealdorman Ælfgar left an estate at Baythorne *c.*950 (Whitelock 1930, 7). These were unlikely donations if the abbey had been deserted until 963. It seems likely that some revival had occurred before Edgar's 'restoration', or that Danish destruction had been incomplete.

During Edgar's reign new lands were granted to many monasteries of which Ely was one. Bishop Æthelwold bought from King Edgar twenty hides of land in the Isle of Ely and a soke (a jurisdiction with the right to collect dues and settle disputes) of five and a half hundreds in East Anglia. He was commissioned to rebuild the monastery anew. He installed Benedictine monks consecrating Byrthnoth, his provost, as the first abbot in 970, and granted several estates, some of which he purchased, some by gifts, some by exchange, for their maintenance (LE ii, 3). Byrhtnoth, Ealdorman of Essex, was urged by the abbot to make good the promise of King Edgar just before his death to issue a charter confirming that Newton and Hawxton in the Isle of Ely should belong to the abbey for which they had paid with 200 mancuses (about sixty pounds) of gold by the exchange of Sproughton and Ramsey. After much dispute, the exchange was eventually completed (LE ii, 27).

Among these early estates which came to Ely monastery was land at Holland on the Essex coast. Holland had been bequeathed by the grandmother of King Edgar to the noble lady Ælftred who married King Edgar in 964 (Hart 1971, 12). We know that Ælftred was a benefactress to Ely as she is recorded as giving other estates to the monastery (LE ii, 37). In 971x984 the Ely monks found it more convenient to possess property closer to the abbey than Holland. The canons of the Cathedral Church of St Paul's, London had gained an estate at Milton from Thurcytel the Abbot of Bedford which he gave to St. Paul's to allow him to enter their community. The Ely monks exchanged with St. Paul's five hides at Holland for 4½ hides at Milton which was more accessible to Ely along the river Cam or via the Roman road to Cambridge, together with the livestock of sheep and swine. This exchange also suited the brethren of St. Paul's who were accumulating estates in Essex accessible to London by sea (LE ii, 31).

From the will of King Edgar's faithful minister Ælfhelm, Ely gained an estate at Wratting (Cambridgeshire) *c.*989 (S:794). To Leofsige, his relative, he left land at Littlebury (S:1487).

Less information concerning Barking's new estates at this time is available, but it is clear that during this and the following century before 1086 it acquired Mucking, Fanton in Benfleet, Parndon, Wigborough, Ingatestone and Fristling in Margaretting. Stifford, probably one of the foundation grants, was still being held by the abbey tenanted by Gielbeard, a man of the bishop of Bayeux, *c.*1090. It had lost Rainham, Ilford, Ham (possibly a manor exchanged with Westminster), Woodham, Isleworth (Middlesex), Swanscombe and Erith (in Kent), though why is unclear. Terling had been willed to Ely by Godiva, widow of an ealdorman, but was in the king's hands in 1086 though still claimed by Ely (Fig. 1) (Hart 1971, 22). Battersea had been lost before 1066 when it was held by Earl Harold from whom King William took it and exchanged it with Westminster monastery for Windsor (Kemble 2008a, 159). But in 1225 the Abbot of Barking had obtained an agreement with Westminster that Battersea should provide food-rents to its monks, so there had probably been some prior dispute about its earlier possession (VCH Surrey 1912, 8).

RENEWED DANISH INCURSIONS

Conflict with the Danes resumed during Edgar's son Æthelred II's reign (978–1016). Æthelred's policy of attempting to buy peace with the Danes with gold and silver merely encouraged further Viking raids. The Chronicle is scathing about the policy which resulted in the invaders overrunning Essex, East Anglia, Cambridgeshire, Oxfordshire, Hertfordshire, Kent, Surrey and Sussex into Wiltshire (ASC sub anno 946).

In 991 the English army under Ealdorman Byrhtnoth had marched from Mercia to confront the Vikings at Maldon and sought provisions as they passed Ramsey Abbey. Here he was refused, but he was welcomed at Ely. On his departure he promised to grant the abbot gold, silver and several estates including Rettendon on condition that, should he be killed, the monks would bring his body back to the monastery. So it was that Byrhtnoth was decapitated during the battle and the monks returned his body to Ely and buried him in the church with a wax ball in place of his head (LE ii, 62; Campbell 1993, 2).

Ely benefitted significantly from its act of hospitality to Byrhtnoth's march to Maldon. His widow Ælfflaed gave the church a rich tapestry depicting her late husband's life. Also, she bequeathed Soham, Fen Ditton (Cambs) and confirmed Rettendon (in Essex) which she had received from Byrhtnoth on her marriage. His daughter Leofflaed's son, Ælfwine, became a monk at Ely bringing with him the estate of Stetchworth, near Newmarket (Cambs), and other properties (LE ii, 67). In *c.*1036 his grandson Lustwine made lavish bequests of a tunic of valuable orphrey and of property at Pentlow, Wimbish, Yardley Hall in Thaxted, South Hanningfield and Ashdon (Essex) (LE ii, 89). His great-grandson Thurston bequeathed *c.*1043 Wetheringsett (Suffolk) and Knapwell (Cambs) (Whitelock 1930, 81; Stafford 1993, 231–2). His grand-daughter entered a religious teaching life at an Ely estate at Coveney, 4.8km from the monastery; after her death Weston Colville (Cambs) came to Ely.

In 996x1019 a pious lady Ætheliva, who seems to be have been associated with St. Albans, gave Ely her land at Thaxted. A grant to Ely by King Æthelred secured twenty hides at Littlebury for the monks in 1004. Four years later, purchases were made by Abbot Ælfsige from Æthelred of two hides at Hadstock for £9 of gold, and 10 hides at Stretley Green in Littlebury for £10 (Hart 1971 21; LE ii, 77). His queen Emma gave the monastery a pall decorated with gold and jewels to cover the foundress St. Æthelthryth's tomb, silk coverings and altar-hangings. She

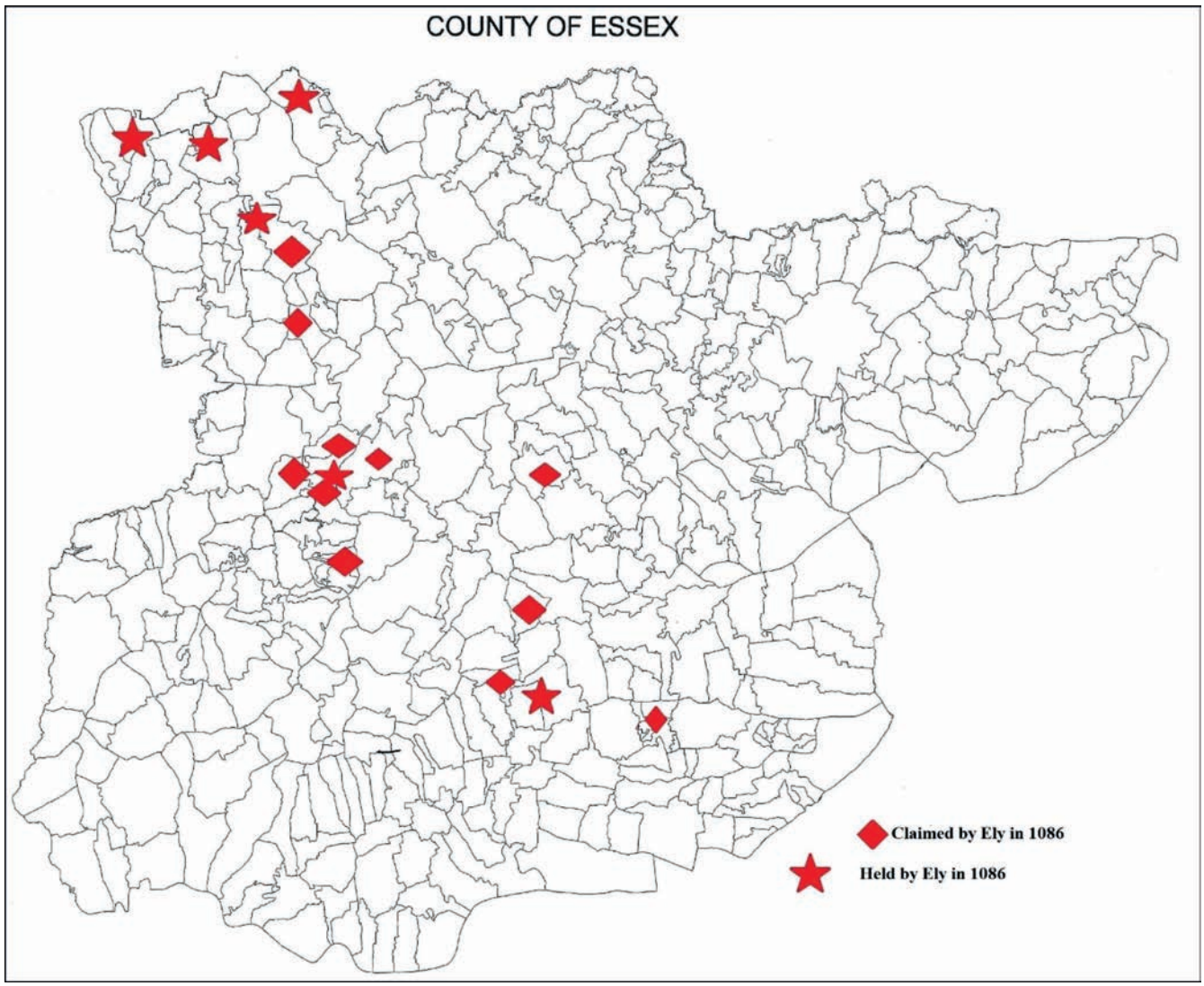

FIGURE 1: Ely Monastery's estates in Essex

and her second husband Cnut gave a gold and silver shrine recording that it cost 210 mancuses of gold (LE ii, 79, iii, 122).

Some remarkable details have been preserved concerning Ely's acquisition of Aythorpe Roding *c.* 1002x1016. The wealthy son of Æthulf, Leofwine, known for his charity and hospitality but with a short temper, killed his mother in a fit of rage. Travelling to Rome, he sought from the Pope how he might atone for his sin and was instructed that he should give his first-born son to a poor church, and give extensively of his possessions. His son Æthelmaer became a monk. To Ely he gave several estates in Suffolk, Cambridgeshire, Holborn in London and the Rodings (identified as High and Aythorpe) in Essex, and enlarged the monastery church. Reaching an old age he was buried at Ely (LE ii, 60; Hart 1971, 20). The Holborn estate, now including Hatton Garden, became the London palace of the bishops of Ely in the 13th century, and St Ethelreda's church there was their private chapel.

Less is known about Barking in the early 11th century. King Æthelred's death in 1016 and the accession of his son Edmund Ironside did not bring an end to the invasions. The Danes under their leader Cnut besieged London by digging a channel at Southwark on the south bank of the Thames and dragging their ships through to the west bypassing London bridge. Failing to take London, Cnut then sailed north to the Orwell which enters the sea at the confluence with the river Stour at Harwich. He was confronted by Edmund's army at *Assandun*, perhaps at Ashdon, on the route to Mercia (Rodwell 1993, 156; Kemble 2014b, 4). Here the Ely monks owned what was to become an important and profitable estate at neighbouring Hadstock some 48km from their monastery, which their abbot Ælfsige had purchased eight years previously. When Earldorman Eadric Streona betrayed Edmund Ironside at the height of the battle, Bishop Eadnoth and the Abbot of Ramsey, Wulfsige, were killed along with many of the flower of England. Eadnoth's body was brought to Ely where it was buried (LE ii, 71; ASC sub 1016). After Edmund's death a few months later, Cnut was proclaimed king.

Cnut's reign in England maintained and updated the rule and law code of his Saxon predecessor Edgar. Putting aside his first wife Ælfgifu of Northampton, he married Æthelred's widow Emma. He sought advice from his Saxon council, the Witan. Keeping Wessex for himself, he divided the remainder of England between the Danish earls Thorkel (for East Anglia), Eric son of Haakon (for Northumbria) and the nefarious Saxon Eadric Streona (who had deserted Edmund at Assandun) (for

Mercia). Within a few months Cnut had Eadric murdered in London (ASC, sub anno 1017). Wulfstan, Archbishop of York, drafted many of the king's laws. From his writings it seems that Wulfstan was conversant with the Scandinavian languages as well as Old English and Latin, so may have been able to speak to the Norsemen who inhabited Northumbria. In 1020 Cnut had a stone church built at *Assandun* which Wulfstan dedicated. Some three years later, Wulfstan's body was brought from York and buried at Ely as he had wished.

As William I was later to be to Barking, Cnut was supportive of the Ely monastery and attended the Mass of the Purification of St. Mary. He was greatly impressed by the devotion and chanting of the monks, and made confirmation in 1029x1035 of its previous grants and Abbot Leofsige's food-rents due to the church from Hadstock and Littlebury. Godgifu, the widow of an ealdorman, bequeathed to Ely South Fambridge, Terling and Æstre which is identified as High Easter. Good Easter takes its name from this widow (LE ii, 81; Hart 1971, 22).

The peace that England had enjoyed during much of Cnut's reign came to an end with his death in 1035 when Cnut's son by his first marriage to Ælfgifu, Harold Harefoot, succeeded to the throne. Godwine, Earl of Wessex, at Harefoot's bidding is credited with responsibility for the seizing of Æthelred's son, the Ætheling Alfred. Alfred was taken to Ely but as the boat approached the Isle his eyes were gouged out and he was handed over to the monks for his care. He did not live for long and was buried in the south aisle of the church (LE ii, 90). On Harefoot's death in 1040, his unpopular half-brother Harthacnut became king for less than two years before dying during a drinking feast.

Edward the Confessor, crowned king in 1042, was no stranger to Ely. He had been brought up by the monks as a young lad having been taken there in his cradle by his parents. Here he had learnt the psalms and received his early education. When aged about ten, his mother Emma had sent him to escape the Danes to Normandy where he was put into the guardianship of his uncle Duke Richard (996–1026). Aged about 40, he had come back to an England which was threatened by invasion by the Danish king Magnus who was encouraged by Emma and by the intrigues of Earl Godwine who had ambitions to become the foremost power in the land (Stafford 1997, 222).

POLITICAL INTERFERENCE

It was during King Edward's reign that Ely experienced threats from certain noblemen about ownership of their property. *Liber Eliensis* (LE ii, 96) records how Æsgar, constable of Edward's household, forcibly took possession of that part of Easter called Pleshey. Abbot Wulfric repeatedly asked for its return without effect. Eventually the king imprisoned Æsgar so that, coming to his senses, he made a bid to obtain the estate as a tenant for his lifetime. The monks, wishing to keep the peace, acceded to his request when he swore that it would return to them after his death. King Edward witnessed the charter dated 1045x65 (Hart 1971, 29). But after 1066, Pleshey was seized by the Norman Geoffrey de Mandeville who procured many of Æsgar's estates, and Ely was still disputing its ownership at Domesday (Finn 1964, 191; Morris 1970).

Further loss of independence occurred after Abbot Wulfstan died and Edward's archbishop, Stigand, took control of all their possessions as if they were his own. He persisted in doing so even when Thurstan, who had been educated from boyhood in the monastery, was appointed as the new abbot.

With the defeat of Harold son of Earl Godwine and the Saxon army at Hastings, Duke William of Normandy was consecrated king by Ealdred, Archbishop of York, at Westminster where King Edward had been buried less than 12 months earlier. He made his temporary residence at Barking, probably encamping some of his men at the nearby ancient fortification of Uphall (Loftus and Chettle 1954, 24). Perhaps his treatment here, when his position in the country at large was still uncertain, boded well for his later treatment of the abbey. William ordered all the monasteries to be searched for money deposited by Saxon nobles. Archbishop Stigand and his brother Æthelmaer, Bishop of the East Angles, were demoted and deposed. The king's opponents, including Edwin, Earl of Mercia, Morcar, Earl of Northumbria, and Hereward, a zealous Lincolnshire thegn, with their men gathered on the Isle of Ely, defending it against William's attempts to storm it by making guerrilla raids on the king's forces (Hart 1992, 630; LE ii, 102). They were joined by Archbishop Stigand and the Abbot of St Albans Ecgfrith, who brought with him the body of the martyr Alban which was ceremoniously buried in the church next to the founder, Abbess St. Æthelthryth.

William Stukeley (quoted by Bentham 1812, 104) writes that King William's army was stationed at Aldrey (Aldreth) at a Roman camp, now a ditch and rampart ring-fort at Belsar's Hill on the Aldreth road (OS TL 423703). For a second time, King William stormed the Isle by way of an artificial causeway through the fen. Many of his men, some with horses, rushing along it drowned when the causeway collapsed; many of their weapons were to be found in the waters. After seven years of resistance (perhaps an exaggeration if 1071 is accepted as the year of surrender), and with food reserves failing, Ely's abbot, Thurstan, and some monks met the king at Warwick and made submission. Again William's army attacked the rebels remaining in the Isle, and, with Morcar and Hereward escaping, finally forced entry. Edwin was taken prisoner; armed men were imprisoned, maimed or slaughtered and the monks obtained their lives only by giving up the monastery's precious articles, wealth and one thousand marks to the king (LE ii, 111). As he had done to Barking, King William imposed knight service on Ely, ordering that forty knights be housed and fed on the abbey's property; several of these knights, amongst them, Bigod and Hardwin de Escalers, gained land tenure. Especially despised was Picot, sheriff of Cambridgeshire, 'the villain of Ely' for his seizure of manors and treatment of tenants (VCH Cambridgeshire 1959, 2–15). William Rufus doubled the number of knights' service to eighty. In 1080 King William ordered a royal commission assembled at Kentford near Newmarket to examine and restore the rights and possessions of the abbey as they had been in King Edward's time, but successful prevarication by several nobles prevented the return of many estates. Three hides at Broxted, three hides from Hugh de Berners, one from Bishop Remigus of Lincoln and two hides from the Bishop of Bayeux were regained. But Domesday Book and *Inquisitio Eliensis* record William de Warenne still holding High Roding and a hide in Leaden Roding in 1086 which the abbey had held, Geoffrey de Mandeville still holding Pleshey and Shellow Bowells, Reginald Gunner holding South Fambridge, Gotselin Lorimer a hide in Terling, the bishop of Bayeux South Hanningfield, Eudo the Steward Morrell Roding

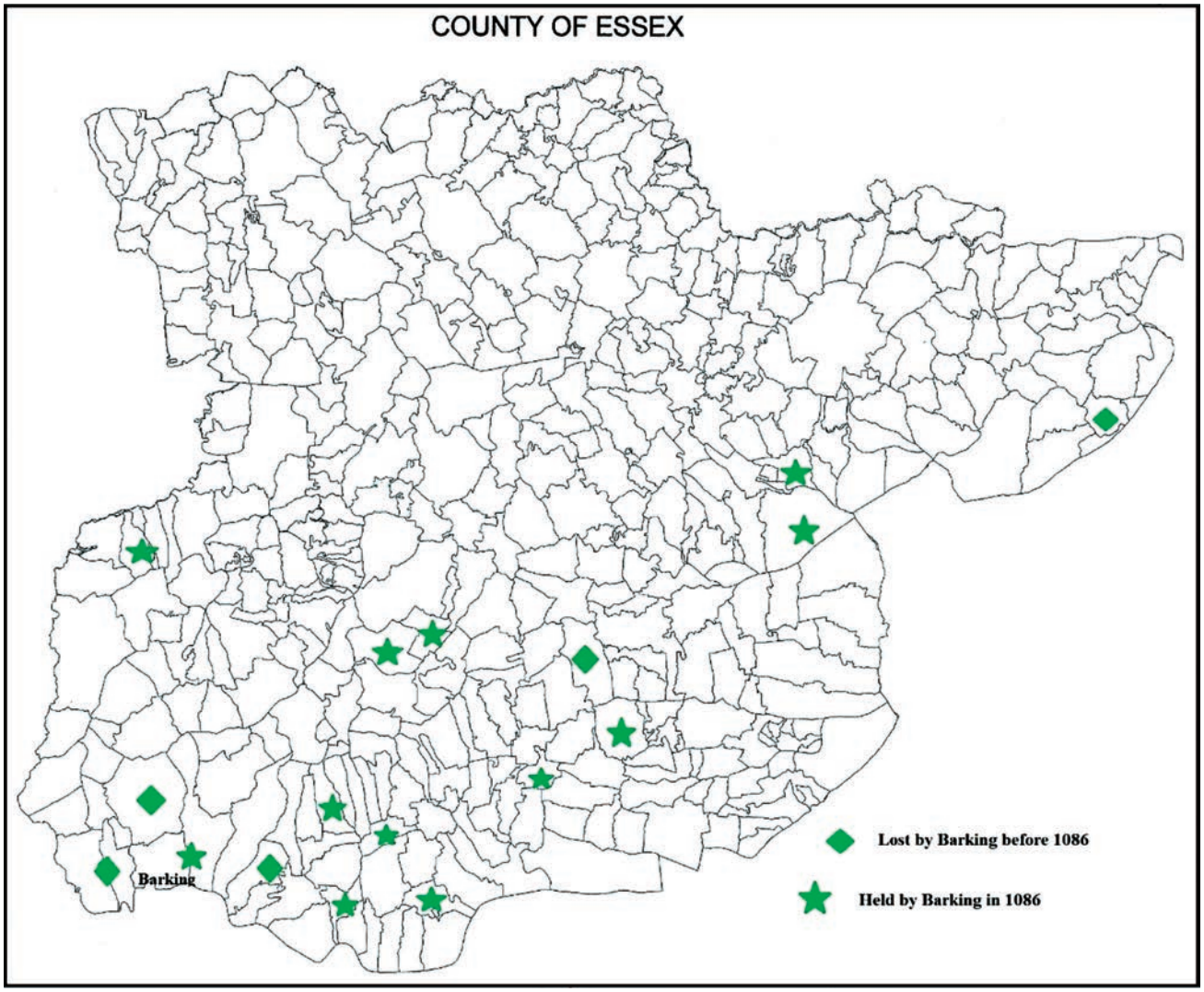

FIGURE 2: Barking Abbey's estates in Essex

and nine acres in Broxted, Hugh de Montford four hides in Sandon, and Ranulf Peverel five hides at Amberden Hall in Debden (Hamilton 1876) (Fig. 2).

Barking Abbey too suffered losses after 1066 including thirty acres in Mucking which were taken by the Bishop of Bayeux. Six men who had held two hides and fifty acres in Barking freely were bound in to the service of King William. Ranulf Peverel took one hide at Tollesbury which had been for the abbey's supplies.

Whereas the documentary evidence is that it had been Cnut who had made grants to Ely, it was King William who supported Barking while besieging the dissidents such as Hereward and Earl Morcar at Ely. He and his wife attended Barking monastery on at least one occasion, and before 1087 confirmed to the abbess all rights she had had during Edward Confessor's reign (Hart 1953, 43). Barking gained Lidlington in Bedfordshire, two hides in Waleton (later Croydon) Hundred and three hides one virgate at Weston at Emley Bridge Hundred in Surrey (Salmon 1736, 41, 188), Slapton in Buckinghamshire, and held Tyburn which included much of Marylebone, now in London, from the king. The abbess also had three houses in Colchester (Loftus and Chettle 1954, 25).

Following the vacancy after Abbot Thurstan's successor Theodwin's death in 1075, Simeon, brother of the bishop of Winchester, was appointed Abbot of Ely. He began rebuilding the church on a new foundation. After Simeon's death in 1093 the king appointed Richard fitz Richard, a Norman monk from the monastery of Bec, to replace him; he continued building the new church in to which the body of St. Æthelthryth was taken.

While Ely lay geographically within the diocese of Lincoln, the Bishop of Lincoln had repeatedly tried to establish his authority. But Abbot Richard, seeking to uphold the monastery's independence as had been granted by successive kings, obtained from King Henry I the right for Ely to become a separate episcopal see (LE iii, 1); this was enacted after Richard's death by Abbot Bishop Hervey in 1109 (Johnson and Chronne 1956, 260; Kirby 1965, 6). This had long-term benefits but caused short-term disputes. While previously abbot and monks had held all the monastery's possessions in common, Hervey wished to divide his bishop's lands from the monks', as was the Norman practice. Such division is shown in Domesday Book for the Bishop of London and for the canons of St. Paul's. Dispute arose at Ely as to what was to belong to the bishop and what to the monks (Keynes 2003, 3).

Bishop Hervey allocated to the monks: in the Isle: Sutton, Witcham, Witchford, Wentworth, Turbutsey, Whittlesey, Stuntney, 23,000 eels, the church and its tithes and the tithes of the grange-farm, Beald dairy farm, one-third of Stretham, the vineyard, salt, cheese and timber; in Cambridgeshire: Hauxton, Newton, Shelford, Melbourn, Meldreth, and Swaffham; in Suffolk: Barham, Winston, Stoke, Melton, Bawdsea, Sudbourne, Brightwell with Rixemera, the soke of 5½ Hundreds, Lakenheath, Undley, Sceppeia and Fotesdorp, and 30,000 herrings from Dunwich (LE iii, 26).

Bishop Hervey took for his own possessions within the Isle: Coveney and Mepal; outside, Stetchworth, Wratting, Strede, the Rodings, Thriplow, Impington, Pampisford, Marham, Cottenham, Snailwell, Gransden, Terrington, Darmsden, Thaderege, and Kingston. He obtained from King Stephen a charter whose purpose was to wrest back all those properties which Ely had held in 1066 when King Edward died but which had been appropriated by Norman barons.

MISMANAGEMENT

In 1133, King Henry I appointed his treasurer Nigel to the bishopric of Ely. Since he was required often to be in London, Nigel entrusted an apostate ex-monk of Glastonbury, Ranulf, to attend to the running of the monastery. This man ejected the monks from holding offices, prohibited external travel, withheld revenues, prohibited celebration of feast-days and reduced victuals; even the Prior William was excluded from all judicious oversight. Ranulf, with the aid of conspirators, had weapons made and sought to arm his men to take entire control. But the monks heard of his intentions and sent for Bishop Nigel who came and hanged some of the laymen, and condemned to exile the false clerics; Ranulf escaped. While Nigel restored Prior William and the monks to their posts, he retained some of their properties for himself (Bentham 1812, 140).

The Anarchy between King Stephen and the Empress Matilda impacted profoundly on both monasteries. Bishop Nigel began ruling the Ely church for his own benefit and had a strong fortress built against Stephen. He placed his knights on the causeway at Aldreth. When the king's men stormed the fortress and captured it, Nigel escaped to the protection of Empress Matilda. The monks pleaded that they were not involved with their bishop's insurrection, but Stephen nevertheless garrisoned the Isle with his own men. However, Nigel obtained from the Pope a mandate for his restoration (LE iii, 68) and when Matilda captured Stephen, Nigel regained his See at Ely. When Stephen was freed from Bristol in 1141, Nigel was summoned to Rome to account for his actions and took precious silver and gold treasures from the church for which he promised to grant to the monks Hadstock which he had appropriated. By this means he confirmed by papal mandate acquittal of his misdeeds (LE iii, 78). He founded a hospital at Cambridge under Ely's patronage which, after the Dissolution, became St John's College (Bentham 1812, 139). Around the same time a teacher, Julian, who had fled from London was instructing the younger Ely novices the arts of grammar, rhetoric and philosophy a century before the founding in 1209 of Cambridge University only a few kilometres away (LE iii, 93). Latin, Greek, music and verse were taught to the monks.

King Stephen made to Barking Abbey major grants of the Hundreds of Becontree (in which the abbey lay) and Barstable which had been held by the king's half-brother Odo in 1087. His wife Abbess Maud was succeeded by Adelicia who founded a hospital for lepers at Ilford (VCH Essex 1907, 186).

Geoffrey de Mandeville, who already possessed castles at Saffron Walden, Pleshey and the Tower of London, terrorised neighbouring Ramsey Abbey then occupied the Isle of Ely, expelling the monks who wandered 'without sustenance'. But in 1144 Geoffrey was killed while attacking King Stephen's army at Burwell (near Newmarket) after which Nigel was able to return to Ely; he took money and remains of the treasure from the church with which to placate Stephen's anger (LE iii, 89), but some he used on his own falconers and hunters (LE iii, 92).

Bishop Nigel's death in 1169 was followed by the consecration in 1173 of Geoffrey Ridel who had been Thomas à Becket's archdeacon. A description of Becket's murder in 1170 concludes *Liber Eliensis*; it is appropriate that it should be so for it was partially because of Becket's attempts to wrest back misappropriated church property and rights, a cause dear to Ely, that caused his collision with Henry II. Ridel had supported King Henry against Becket and had earned the nickname 'archidiabolus' by Becket's followers. He had been custodian of Ely prior to his appointment as bishop and built the western transept of the new cathedral, but, leaving no will, his personal wealth was appropriated to the king on his death in 1189.

Perhaps as an atonement for Becket's murder by the knights of Henry II, in 1173 the king appointed Becket's sister Mary Abbess of Barking, but on her death two years later he appointed Maud, his sister.

In 1237, Henry III imposed a tax of thirtieths on moveable property in which the Liberty of the Abbess of Barking was assessed at £30 and 21 pence from the possessions of Bulphan, Mucking, Tollesbury, Ingatestone, Abbess Roding, Hockley, Great Warley, Great Wigborough and Barking. Ely was assessed from Broxted, Aythorpe Roding, Rettendon, Hadstock, Littlebury, Strethall and South Fambridge. According to Bishop Fulk Basset's Register, some fifteen or so years later, in the diocese of London alone, the abbess and nuns of Barking received an income of 202 marks (about £134) from West Ham, Dagenham, Great Warley, Abbess Roding, Ingatestone, Horndon, Hockley, Little Stambridge and Great Wigborough, as well as from Barking itself worth £70 from which two vicars were paid 9 and 8 marks (£6 and £5-6s-8d) respectively. The bishop and abbot of Ely received 30 marks (£20) from Little Hadstock and Rettendon, but apparently no vicar was in post in either. Some idea of the relative possessions of the two monasteries can be obtained from the valuation of 1291 which reckoned Barking Abbey's annual income worth £352, mainly from land in Barking itself. The bishop of Ely's income was estimated at 3000 marks (£2000) (Fowler 1925, 16; and 1927, 28).

Further additions to Ely's new cathedral were made by Hugh Northwold, bishop from 1229–54, when the west tower was roofed, and he laid the foundations to the east end. For the monastery he purchased estates in Suffolk and Hertfordshire. He died in 1254 and was buried in his new-built presbytery (Bentham 1812, 146).

Barking was embroiled in national affairs again in 1306. A Scottish rebel, Hugh Olyfard, and William Sauvage had escaped from Colchester gaol and were seeking sanctuary at

the abbey; the king ordered the abbess to keep them there until they had been handed over to his agents. The king also imposed obligations, instructing her to accept daughters and widows of his close attenders as nuns and to pay the king's clerks pensions.

An act of nepotism may have occurred in 1341 when Maud de Montagu was appointed the new Abbess at Barking; her brother Simon was Bishop of Ely and her sister Prioress of Haliwell.

ELY'S RELATIONSHIP WITH CAMBRIDGE

Following the death in Spain of Bishop William de Kilkenny in 1256, Ely's monks elected their sub-prior Hugh de Balsham to be their new bishop contrary to the king's desire to appoint his own chancellor. At Cambridge, on the south side of the church of St Peter, Hugh provided the first endowed college, Peterhouse, for students at the University and gave many books to its library (MS Harl. 258). His successor John de Kirkeby, the king's treasurer, left in his will nine cottages which became the capital mansion of the bishops of Ely in Holborn.

John of Crauden, prior in 1321, purchased a house in Cambridge in which some of the monks resided to improve their education, returning to the monastery on obtaining their degree. It was perhaps this commitment to an educational institution that was a factor persuading the advisors of Henry VIII not to suppress Ely as he did Barking. Prior Crauden's house was purchased by William Bateman, Bishop of Norwich, who built Trinity Hall on the site in 1350 for the education of clergy after the Black Death had deprived England of so many priests. The number of monks at Ely had fallen from fifty-three to twenty-eight. (A connection between Ely and Barking occurred in 1502 when Elizabeth abbess of Barking was sister of the Warden of Trinity Hall, Edward Shuldham). In 1428 the Abbot of Crowland purchased a site on the opposite side of the river Cam to build a hostel for monks from Ely, Ramsey, Crowland and Waltham; this house was re-founded and endowed as Magdalene College by Lord Thomas Audley of Walden in 1542.

Barking's involvement with affairs of state could not be avoided, but enhanced the favour of the Tudor dynasty. As King Edward Confessor had been educated at Ely, so Edmund and Jasper, the young sons of Owen Tudor, were educated at Barking until they were about ten years old. They were placed in the protection of the abbess while their father was a fugitive from Henry VI. As an act of pilgrimage, Owen's grandson Henry VII visited Barking in 1508.

Conversely, Ely's 29th bishop, Richard Redman, educated at Cambridge, endangered his and the monastery's fate when he supported the pretender to Henry VII's throne Lambert Simnel, a boy of about ten years old and figurehead for the simmering Yorkist cause (Bentham 1812, 184).

THE SUPPRESSION OF THE MONASTERIES

Nicholas West, son of a baker and educated at King's College Cambridge, became chaplain to Henry VII and worked for him in Europe. In 1515 he was appointed 31st bishop of Ely. He was advocate for Queen Catherine of Aragon in her divorce affair with Henry VIII; after Anne Boleyn became queen, he fell out of the king's favour and his royal appointments declined. He died in 1533 being buried in the chapel he had built for himself at Ely and is remembered for the affluence and splendour of his retinue and large household.

In contrast to his predecessor, Thomas Goodrich as a representative of the Cambridge University syndicate charged with reporting on the legality of the marriage of Henry and Queen Catherine and finding in the king's favour, was appointed chaplain to the king and to the Ely bishopric in 1534. His royal duties often took him away from the monastery but, in support of the King Henry's schism from the Church of Rome, he found time to order the erasure of the name of the Pope and the destruction of popish images and relics throughout England. He assisted in the revision the Book of Common Prayer and the Gospel of St. John. Continuing in royal favour, in 1551 he was appointed chancellor of England in succession to Lord Richard Rich of Felsted.

In 1536 William Moore and Ely's prior Robert Wells were nominees recommended by Bishop Goodrich to King Henry for consecration to the bishopric of Colchester; of the two Moore was chosen. Following the confiscation of the smaller monasteries, the Act of Parliament of 1539 completed the process of visitation and surrender of the greater. Prior Wells and his monks surrendered Ely with its estates and possessions to the king on 18th November 1539. Wells received a pension of 120 pounds, John Custance his steward 16 pounds, all the other monks receiving pensions totalling 230 pounds 6 shillings and 8 pence. According to Dugdale the annual revenues of Ely were £1084-6s-9d but according to Speed £1301-18s-2d (Bentham 1812, 224; Dugdale 1846, 457), one of the richest monasteries in the country.

Unlike Barking, Ely cathedral was re-founded as the newly constituted church of the Holy and Undivided Trinity and the 'King's newe college of Elye' with 'eight prebendaries, eight peticanons, four divinitie students, 25 scholers and six decayed men from the king's warres or service'. Wells was appointed the first Dean (Stewart 1897, 174). In the Survey of 1538/9 only Little Hadham and Littlebury were granted to the Dean and Chapter; the remainder of the properties were appropriated by King Henry.

Dr. William Petre, the royal commissioner, dissolved Barking abbey, the third richest nunnery in the land, for King Henry in 1539, paying Abbess Dorothy Barley and 30 nuns a pension. The abbess surrendered all possessions in Essex, Middlesex, Sussex, Bedfordshire, Buckinghamshire, Hertfordshire, Cambridgeshire, Suffolk, Norfolk, Lincolnshire and the City of London. Henry kept Barking, Thomas Cromwell bought Highall, Abbess Hall in Abbess Roding, Hockley and Tollesbury, Dr. Petre bought Ingatestone, Thomas Mildmay bought Great Warley and messuages in Shenfield and Stifford (L&P 1539, Vol. 14 (2), 182; 1541, Vol. 16, 643). In 1552, Edward VI granted Barking to Edward Lord Clinton, later Lord-lieutenant of Lincolnshire. The abbey's lead was used to repair the roof of Greenwich Palace and the stone was taken to the king's manor at Deptford (Clapham 1911, 73; Crowe 2018, 108).

Chapman and André's map of 1777 shows Barking fishing village isolated on the edge of marshland before the spread of the metropolis eastwards and the coming of the railway in 1854. The founders' names are still remembered in the Roman Catholic churches dedicated to St. Mary and Ethelburga and St. Mary and Erconwald in Barking and Ilford, and the 14th-century St. Margaret's Church, once a chapel within the

Abbey precincts, remains the parish church. Clearly, Barking's association with Ilford Hospital was not deemed enough to save it in the eyes of Henry VIII's commissioners, although the hospital itself was allowed to continue and is now in the ownership of the Diocese of Chelmsford as almshouses.

Ely maintained association with Cambridge University. Many who had studied there became bishops of the cathedral, fellows and prebendaries. During the reign of Elizabeth, Bishops Cox and his successor Heton were required to alienate several manors to the Crown including Rettendon, Imphy Hall (in Buttsbury), Hadstock and Littlebury (Bentham 1812, 196). Ely's link with Hadstock was temporarily restored when the rectory of Hadstock was presented to Matthias Mawson, master of Corpus Christi College, Cambridge, in 1732. Easier access to the Isle was gained gradually from the 17th century with progressive drainage of the Fens, initially under the patronage of the Duke of Bedford venturers (Plate 2). Bishop Mawson, formerly a student of Corpus Christi college, was consecrated to the See of Chichester in 1749 and then of Ely in 1754 where he installed mills and pumps, embanked the river Ouse and improved the roads (Bentham 1812, 213).

CONCLUSION

Both Ely and Barking, founded within less than three generations of St Augustine's mission to Kent in 597, together with many other monasteries, show the remarkable attraction the spiritual and contemplative life had for some living in an otherwise militant century. Women, in these instances St. Æthelthryth and St. Æthelberga, backed by royal approval and support, had pivotal parts to play. Both monasteries were set up as dual communities for women and men with an abbess accepted as head. Clearly from such evidence as is available to us, the Viking invasions of the 8th and 9th centuries impacted on the lives of the nuns, monks and laity, but both emerged reinvigorated, with the monastery of Ely, and probably of Barking, rebuilt.

Both owed some of their successes from the patronage of the kings, nobles and their families which, no doubt, was fostered by the abbesses, and, in the case of Ely, later the abbots and bishops. It is perhaps a paradox that these monasteries, set up as places of seclusion, prayer and contemplation, became centres of national and local dispute, the more so with Ely. The roles the abbots, abbesses and bishops played in national and international politics ensured that neither could be immune from political interference but this must have been deemed an acceptable price to pay for influence. Military impositions on both abbeys were no doubt particularly distasteful to the monks but had benefits. Ely gained particularly from the goodwill of Ealdorman Byrhtnoth and his family resulting from the monastery's hospitality to him and his army on the way to Maldon and the veneration of his body after the battle. On the other hand, it suffered greatly from King William when it became a rallying point for the Saxon nobles opposed to his conquest. Barking was not so generously favoured until William seems to have found the monastery precinct a useful military base close to London while he was establishing his

PLATE 2: Ely and The Fen, by Ken Burton

rule. For both monasteries, their estates in Essex constituted important resources.

Ely in particular was a spectacular loser of estates at Domesday which, despite William's half-hearted efforts to appease the abbot, resulted in many being appropriated by the avaricious new Norman lords on whom the king depended for his rule. Barking managed to retain significant holdings both in Essex and in neighbouring counties.

The foresight of Ely to achieve diocesan status and thus ensure independence from the Bishop of Lincoln was pivotal for its future. Perhaps too close to St Paul's Cathedral in London to be the seat of a full Anglican bishop, despite its abbesses holding a position of precedence, too inward-looking and failing to promote education outside its walls as Ely did, Barking Abbey did not survive the Dissolution, though its chapel St Margaret's, where Captain James Cook married Elizabeth Batts in 1762, is still the parish church. Ely remains a beacon cathedral in the Fens of the diocese of Cambridge.

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Medieval Boundaries, Quarry Pits and other activity at Dunmow Road, Great Hallingbury, Essex

Andrew A. S. Newton

In September and October 2015 Archaeological Solutions (AS) carried out an archaeological excavation on land south of Dunmow Road, Great Hallingbury, Essex. The excavation recorded six ditches, ten possible quarry pits, a buried soil layer, and a handful of other features representing medieval occupation. The ditches appear to indicate that the site was divided up into roadside plots, possibly representing toft and croft-type habitation. The quarry pits appear to have been used to extract the clays overlying the naturally occurring sands in this area and this was possibly transported for use at a nearby medieval tile kiln which has been recorded in the vicinity. The finds assemblages recovered from the site contain elements that appear to be of a higher status than the recorded features would suggest, possibly indicating that deposits, perhaps from the nearby Thremhall Priory, were being transported to this location to infill the pits and other features that were present.

INTRODUCTION

Dunmow Road in Great Hallingbury follows the line of Roman Stane Street which ran east to west linking the settlements at Braughing and Colchester (Essex Historic Environment Record (EHER) 4697). Extensive multi-period occupation dating from the Bronze Age to the post-medieval period is known from Stansted Airport and from other sites along this ancient route (Havis and Brooks 2004; Cooke *et al.* 2008). In September and October 2015 Archaeological Solutions (AS) carried out an archaeological excavation on land south of Dunmow Road (Fig. 1).

The excavation was required after an archaeological trial-trench evaluation demonstrated the presence of medieval ditches and other features. The excavation recorded nine ditches, ten possible quarry pits, seven other pits, and a buried soil. Of these, six ditches, ten quarry pits, three other pits, and the buried soil were medieval, two ditches were post-medieval or modern, and four pits and one ditch were undated.

MEDIEVAL ARCHAEOLOGY IN THE SURROUNDING AREA

Located *c.*450m to the north-east of the excavation site is the site of the Augustinian Priory of Thremhall dedicated to St James the Apostle (EHER 4599). It was founded in the mid-12th century, probably by Gilbert de Mountfitchet who is recorded in the Victoria County History of Essex as giving Thremhall to a Scot, named only as Daniel, to build a monastery upon his departure to the Holy Land. To the north of the current 18th-century house, excavations have revealed a large medieval building, comprising clunch and mortar pads for columns, robbed out walls and tiled floor surfaces (EHER 4599). The bowl of a 13th-century font was found buried in a flower border and removed in 1938 (Doel 1999, 3). Further to the south is a moated mill mound which is suspected to have been attached to the priory (EHER 4663). At the Dissolution, the site and manor was granted to John Cary and Joyce Walsingham and the prior was given a pension of £10 (Goldsmith 2005, 7). There is evidence of a transitional building on the Thremhall Priory site following the Dissolution, and before the current 18th-century house was built. Wall foundations of this transitional structure were found during excavations in 2005 (Grassam 2007). The current house foundations and cellar also incorporate numerous masonry blocks and column fragments from the medieval Priory building (EHER 4600).

The possible site of a medieval tile kiln lies *c.*800m to the west of the site, along Dunmow Road (EHER 4661). Evidence for this comprises large quantities of broken, unused tile on the surface of a ploughed field. Land to the north-west of the site also shows evidence of medieval occupation comprising pottery scatters, beam slots and several post-holes identified during excavations following field walking (EHER 672). However, no clear building plan could be identified and relatively few features were found. Hatfield Forest, located *c.*440m to the south-east, is another remnant of the medieval landscape. It is a royal forest preserving elements of its medieval form, including areas of coppice and tracts of rough grazing with pollarded trees, other trees, and scrub. The pollards are now the oldest living examples and the coppice woods certainly existed in the 17th century, but probably much earlier (EHER 17333).

Dating and Chronology

The medieval pottery assemblage contains material with currencies ranging from the late 11th century to the 16th century. Based on the point where the date ranges of these pottery types overlap, evidence from the small finds and ceramic building materials (CBM) assemblages also recovered from this site, and on evidence from medieval sites in the surrounding area (Havis and Brooks 2004), it is possible to suggest that the medieval activity recorded at this site must have occurred between the 12th and 14th centuries.

Although sufficient stratigraphic evidence to produce a complete model of the chronological development of the medieval site is lacking, it is evident that the earliest medieval activity is associated with layer L2007, a firm, mid-red-brown clay silt which contained pottery of mid-12th- to 14th-century date, including a large decorated storage vessel, through which medieval features were cut. Thereafter, some stratigraphically early cut features were identifiable but relationships were insufficient to determine the precise chronology of the creation of the identified features.

The earliest medieval features

Pit F2078 and the slightly later Pit F2065 were amongst the stratigraphically earliest features recorded (Fig. 2). F2078 contained pottery of 12th- to 14th-century date; stratigraphically later features contained additional pottery

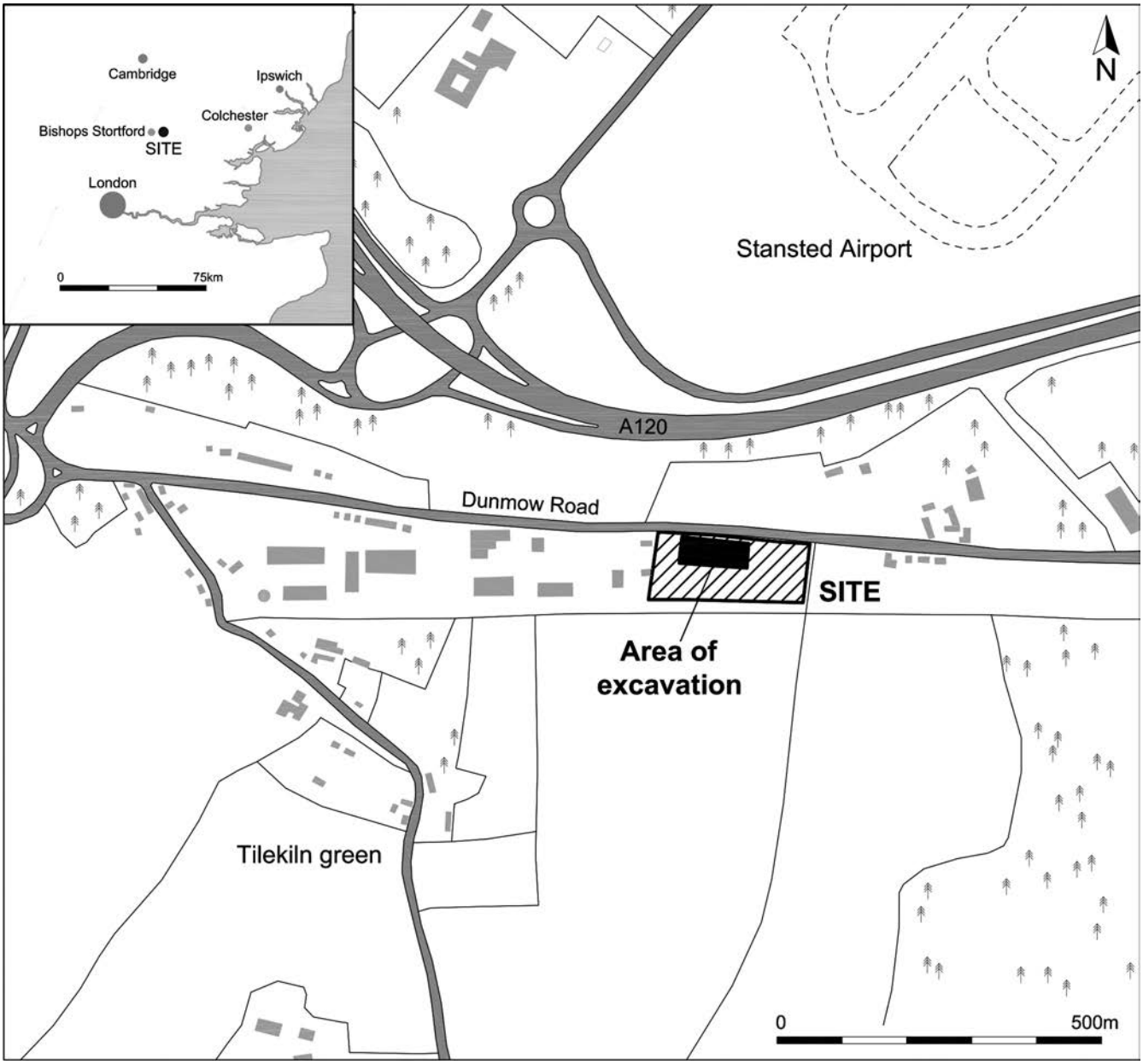

FIGURE 1: Site location plan.

types suggestive of a slightly later date. F2078 was a notably deep feature but F2065 was deeper and has been interpreted as a quarry pit. Throughout the span of medieval activity, the site appears to have been used for quarrying, mostly for the clay in the layer below the upper chalky material and not for the underlying sand.

The early stratigraphic position of F2065 indicates that the extraction of clay had begun in this area prior to the creation of the large east-to-west and north-to-south aligned boundary features. The function of the north-east to south-west aligned gullies which were stratigraphically later than F2065 but which preceded the boundaries remains uncertain.

The medieval boundaries and the function of the site

The establishment of ditches F2087=2019, F2092, F2094, F2052 and F2085 (Fig. 2) on north-to-south and east-to-west alignments effectively divided the site into small roadside plots of land. The rural economy of much of northern and central Essex during the medieval period was a mixture of farming, crafts and industry, or trading. The basic unit of production was the household (Poos 1991, 11). Environmental sampling has identified cereal remains suggestive of the scattered waste from day to day domestic cereal consumption suggesting that a dwelling may have existed in the vicinity. Usually, peasant houses in a medieval village were arranged with a smaller 'toft' fronting the street and a larger 'croft' at the rear (Gies and Gies 1991, 34).

A cluster of possible quarry pits (F2036, F2045, F2099, F2103, F2116 and F2125; Fig. 2) was present around, and to the north of, the terminus of the large east-to-west aligned

FIGURE 2: Detailed trench location plan

boundary. Beyond the cluster of pits, further quarry pits were located at the eastern (F2110) and western ends (F2059) of the site. Another, elongated, quarry pit (F2055) was located to the south of the east-to-west aligned Ditch F2087.

None of the quarry pits were excavated into the underlying sand layer suggesting that the target for extraction was the clay layer overlying the sand. The site lies approximately 800m to the east of a possible medieval tile kiln (EHER 4661). The medieval tile recovered from the site appears to have been produced using local clay and it is possible that it was clay extracted from this area, or nearby, and formed and fired at the tile kiln to the west.

Although there is insufficient stratigraphic evidence to determine the exact chronological relationship between the boundary ditches and the various large pits distributed around the site, it seems possible that the site was divided up into different areas, perhaps under different ownership or tenancy, in which this quarrying activity took place or that it was divided up in order to separate the quarrying from other activity. It is notable that no quarry pits were present in the area between north-to-south aligned ditches F2092 and F2094.

It is possible that all of the quarry pits were contemporary with the stratigraphically early F2065 and that this kind of activity, and the tile kiln to the west, occurred as a short-lived chapter associated with a particular event such as the construction or re-roofing of the nearby Thremhall Priory. The large north-to-south and east-to-west aligned boundaries may, therefore, represent rearrangement of the site following the cessation of this activity.

FINDS ASSEMBLAGES AND THEIR ORIGINS

Introduction

At least superficially the finds assemblages recovered during excavation of this site appear to be consistent with small scale rural settlement of the type that might be considered consistent with the 'toft and croft' type habitation that has been suggested for the site. To some extent this may be accurate but some elements of the finds assemblages hint at other origins or processes through which artefactual material arrived at the site. The following comprise summaries of the artefactual analysis; full specialists' artefactual and environmental reports can be found in the Research Archive Report produced for this project (Newton *et al.* 2016).

The Pottery by Peter Thompson

The assemblage, which is all of a domestic nature, spans the majority of the medieval period and comprises approximately 45.8% early medieval sandy wares, 21.3% medieval sandy greywares, and 32% medieval sandy orange ware. The latter category also includes the small number of products from the Hedingham, Colchester, and Mill Green industries which amount to 13.6% of the sandy orange ware total. There is clearly quite a high degree of residuality of the early medieval sandy wares which probably ceased production by the mid-13th century. St Neots Ware is absent from the site, which was present at the Stansted Airport excavation in 10th-century contexts and alongside shelly wares in 11th-century deposits (Mepham 2008, 19.10). It was also present in small amounts at Colchester where it is thought to have arrived in the 11th century and been gradually replaced by sandier fabrics during the 12th century (Cotter 2000, 32–3). At Stansted Airport early medieval sandy wares featured in late 11th–late 12th century contexts (Mepham 2008, 19.10) and so this is likely to be the case for the Great Hallingbury site.

The large, almost complete, storage jar from Great Hallingbury (Fig. 3) is a form that has parallels with Late Saxon Thetford Ware (Rogerson and Dallas 1984, fig. 166.250). Storage jars are also found in early medieval ware including examples produced at the Middleborough kilns, Colchester (Cotter 2000, 62 fig. 37), and at the Frogs Hall site (Walker 2006, fig. 7. 40–48). They are also found in medieval coarse ware fabrics at the Sible Hedingham sites in north Essex (Walker 2012, Plate 32–3, fig. 28). The 'late' early medieval sandy ware vessels produced at Frogs Hall are transitional with medieval coarse ware and have comparisons with Middleborough products and Hertfordshire greywares from Middlesex (Walker 2006, 65). The closest known Hertfordshire greyware production site to Great Hallingbury is at Great Munden, 16km to the west (Blackmore and Pearce 2010, 91–92). However, Hertfordshire greyware found at a moated manor site at Whomerley Wood, Stevenage, which included horizontal incised decoration, may have closer affinities with Frogs Hall (Walker 2006, 78).

Frogs Hall kiln products do not appear to have been used locally in general, and may have been made for a specific market or ones more further afield (Walker 2006, 78). However, the large storage jar from L2007 could be a Frogs Hall product. The bulbous form is similar to Thetford Ware (Rogerson and Dallas 1984, 146–151), but the flat-topped everted rim appears simpler than the more elaborate Thetford Ware rims. The firing of the vessel is similar to some 'transitional' vessels present on a number of sites across southern Hertfordshire (Berni Seddon pers. comm.). The Frogs Hall kilns (and Middleborough kilns) were of a similar late 12th–early 13th centuries-date (Walker 2006, 77), and it is suggested that the large storage jars from Frogs Hall with thumbed applied strips, may have been indirectly copying Thetford Ware storage jars, which were probably no longer being produced by *c*.1100. The Frogs Hall kilns also produced vessels of earlier traditions such as spouted pitchers which are more typically 11th–12th century forms (Walker 2006, 77, 78). The reason why an intact vessel may have been deposited in the ground is likely to be for either a ritual or functional purpose. There are examples of medieval pots being ritually buried beneath hearths or the threshold or walls of buildings, although these are quite rare. Alternatively, pots were sometimes buried in order to keep their contents cool (Walker 2006, 67 and 84).

Table 1 (below) compares the medieval pottery by weight with the medieval pottery from Stansted Airport. The main difference is that medieval Harlow Ware (Davey and Walker 2009, 12), which makes up more than half of the Stansted assemblage, and was also present at Frogs Hall, is absent from the Great Hallingbury site. The medieval sandy orange ware present at Great Hallingbury appears to derive from different sources to Harlow, of which Colchester Ware forms a very small part. The remaining wares otherwise compare quite favourably. Mill Green Ware which was absent at Stansted was present in a small amount at Frogs Hall. The volume of early medieval wares from Great Hallingbury also suggests a similar pattern to Stansted Airport and Frogs Hall in that the main focus of occupation was during the 12th and 13th centuries with continued occupation at a more reduced scale into the

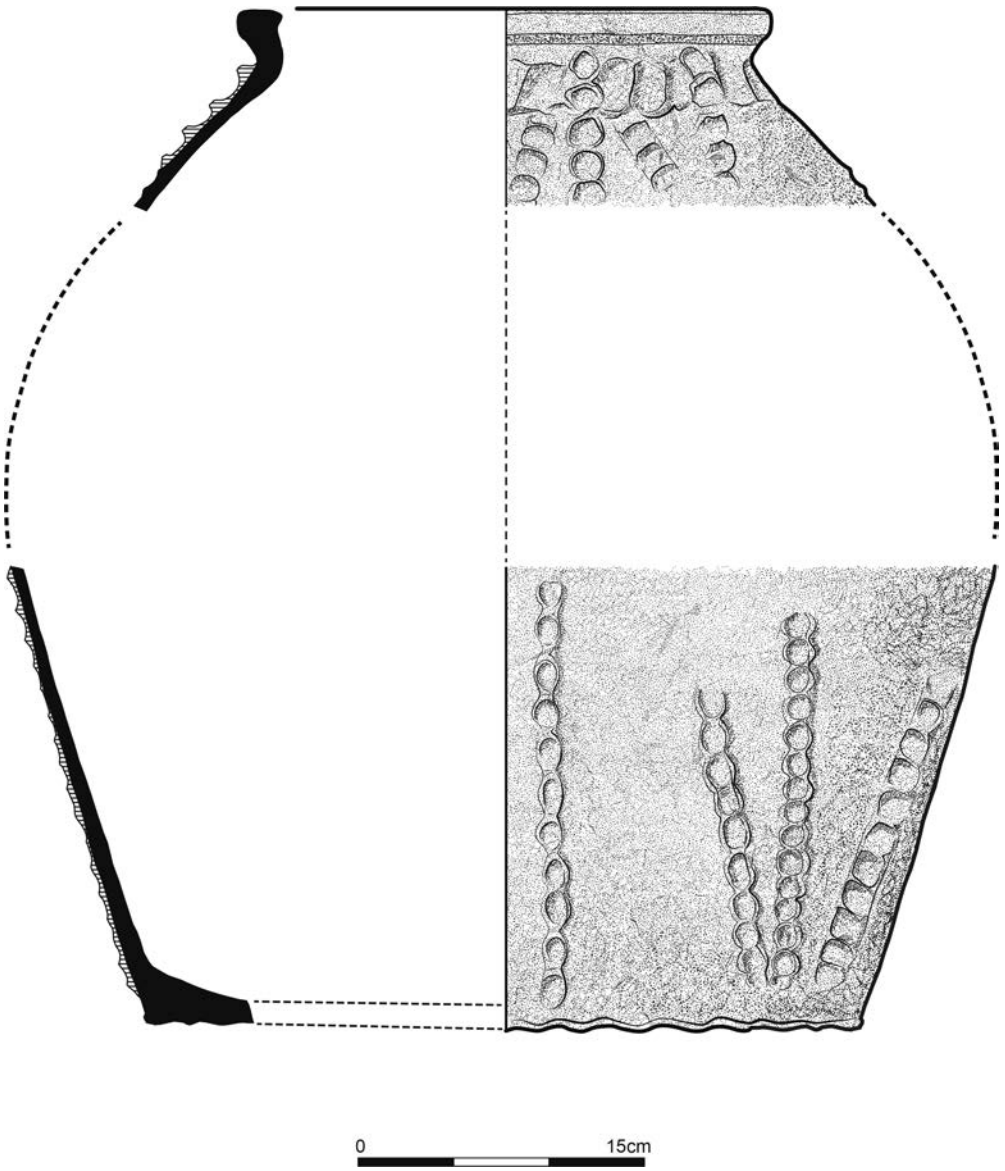

FIGURE 3: Phase plan

14th century and beyond (Walker 2006, 80 and 82). At Stansted Airport medieval sandy orange wares dated between the late 13th and 15th centuries were present, with post-medieval red earthenware commencing in the late 15th century. However, unlike Frogs Hall and Stansted Airport, activity at the Great Hallingbury site appears to have ceased before the end of the 15th century, and possibly by the end of the 14th century.

The Ceramic Building Materials (CBM)

by Andrew Peachey

Excavations recovered a total of 123 fragments (8,811g) of CBM, with a further twenty-six fragments (72g) of daub. The CBM assemblage is predominantly composed of medieval roof tile, in particular peg tile, but also with rare fragments of crested ridge tile or louver (Table 2). The CBM is highly fragmented and slightly abraded, but the presence of several cross-joining fragments in a single pit, with small groups in ditch and quarry pits, suggests that the CBM may represent deposits associated with a nearby structure, albeit possibly re-deposited as material to aid packing or drainage.

Medieval CBM accounts for 105 fragments (5,284g) of the assemblage, of which the bulk, fifty-eight fragments (3,536g), was contained in Pit F1027 (L1028, L1033 and L1056), with lesser groups of thirteen–fourteen fragments (570-690g) in Ditch F2087 and Quarry Pit F2110, and a very sparse distribution of peg tile fragments in other ditch and quarry pit features. The medieval CBM was manufactured in a single fabric consistent with the exploitation of local resources, and potentially indicative of temporary production associated with a local foundation. The fabric typically has orange surfaces fading to red margins and a red/dark grey core, occasionally over-fired to brown-grey.

The peg tile does not preserve any extant dimensions, beyond a thickness of 12–14mm, that might indicate whether it conformed to dated statutes, but other technological traits appear consistent with production relatively early in the period of its use; potentially in the mid-13th century, and certainly by the beginning of (and into) the 14th century (Drury 1981, 131). The peg tile is frequently warped with a slight lip on the upper edge, a sanded base and relatively crude, sub-

Great Hallingbury	% by weight	Stansted	% by weight
		St Neots ware	4.1
Shelly & sandy/shelly wares	0.15	Shelly & sandy/shelly wares	7.4
Early medieval sandy ware	62.2	Early medieval sandy ware	4.9
Early medieval Stansted Ware	2.2	Early medieval Stansted Ware	7
Early medieval ware inclusion free	>0.1	Early medieval ware inclusion free	1.2
		Early medieval ware – rose quartz	0.2
Early medieval – flinty ware	0.1	Early medieval – flinty ware	2.3
Early medieval – Frogs Hall products?	0.3	Early medieval –Frogs Hall products?	0.8
		Early medieval transitional	1.2
Medieval coarse ware	7.7	Medieval coarse ware	11.7
SHER type Medieval coarse ware	6.3		
Hedingham coarse ware	0.25	Hedingham coarse ware	0.2
Sandy orange ware	16.3	Sandy orange ware	1.3
S'grafito ware	0.1	S'grafito ware	0.2
		Harlow Ware	56.5
Hedingham fine ware	1.5	Hedingham fine ware	0.2
Mill Green	0.3		
Colchester-type ware	1.8		
Tudor Green?	>0.1	Tudor Green	0.2
		Saintonge	0.2
London-type ware	0.3	London-type ware	0.4
UPG	0.3		

TABLE 1: Comparison between medieval wares from Great Hallingbury and Stansted by weight

CBM type	Date	Frequency	Weight (g)
Peg tile	Medieval	95	4522
Ridge tile (plain)	Medieval	4	313
Crested ridge tile/louvre	L13th-15th C	6	449
Brick	Modern	11	3387
Land Drain	Modern	7	140
Daub	?Medieval	26	72
Total		**149**	**8883**

TABLE 2: Quantification of CBM

circular tapering peg holes (12–15mm diameter). Equally fragmentary but more diagnostic are fragments of ridge tile, notably those of crested examples or louvers, while the plain fragments may be derived from the body of these tiles. The ridge tiles are 15mm thick, with a 20mm wide crest rising from the apex (height unclear). The upper surface and crest are covered with a green lead glaze while the crest and adjacent tile surface has been impressed with stamped decoration. Each stamp is square (14mm wide) and is filled with a grid (5 x 5 squares). The production of ridge tile commenced in Britain in the 13th century, with crested roof tiles developing in the late 13th century and continuing in production through the 15th century, possibly into the early 16th century. These were supplemented by louvers (or ventilators) that could also form part of roofs, as air vents or smoke-vents, which appear to date between the mid-13th and early 15th centuries, and are often associated with monasteries, such as the Austin Friars, Leicester, as well as buildings at Great Easton, Hadleigh and Rayleigh Park (Allin 1981, 63). The use of stamped decoration remains anomalous, and appears very small for an item such as roof tile, therefore perhaps was associated with a louver-type fixture or finial designed to be visible from a closer distance.

The assemblage also includes a total of twenty-six fragments (72g) of daub, typically preserved as highly fragmented and abraded 'crumbs', probably adversely affected by soil conditions. The daub is sun-dried and pale to mid

orange in colour. No extant surfaces or structural features were preserved, but the association of the daub with medieval CBM suggests that it was a contemporary component of structures that incorporated peg and ridge tile.

The small finds by Nicholas J. Cooper, with conservation and x-radiography by Graham Morgan and Heidi Addison, University of Leicester Archaeological Services

A total of thirty-three iron objects and one of copper alloy (recorded under sixteen small find numbers) were recovered during the evaluation and excavation phases, from a range of contexts dating to the 12th to 15th century. All objects were x-rayed and this has allowed identification and accurate measurement. The catalogue is arranged by functional category.

Tools

Handle?

1. [1007] 1008 Fill of Ditch, Trench 6. A long iron rod of 7mm square section, tapering and angled to a flat length of 4mm width by 2mm thickness. Broken length 285mm. This is possibly part of a long implement handle.

Knives

2. [1027] (1028) Fill of Pit, Trench 6. Small iron knife with centrally-placed whittle-tang. The tip of the blade is missing. Length 73mm (48mm blade). Back of blade rises before sloping down to the tip, thus belonging to Winchester Type A (Goodall 1990, 842, fig. 253 Type A).
3. [2087] (2089) B, Middle fill of Ditch. Incomplete whittle-tang knife blade in three fragments, with remains of a lead hilt band at the junction of the blade and tang which would have reinforced the, since decayed, wooden handle. Tang set centrally between cutting edge and back of the blade. Length: 205mm (165mm blade), width of blade: 28mm. This knife also appears to belong to Winchester Type A with the back rising slightly before angling down to the tip, with a straight or slightly curving cutting edge (Goodall 1990, 842, fig. 253 Type A). It is unusual for the hilt band to survive still attached to the tang after the handle has decayed; an iron example was found on a knife from London (Cowgill *et al*. 1987, 86, fig.58.55). It is unlikely that the knife was originally manufactured with a lead hilt band and it probably represents a later repair.

Equine Equipment

Horseshoe

4. [1009] (1010) Fill of Pit, Trench 6. Fragment from branch of iron horseshoe with two square nail holes preserved; tapering to a squared off terminal at the heel. Width of holes 7mm. This is the type of horseshoe which appears before the middle of the 14th century characterised by a different form of nail hole and nail, to those used during the second half of the 13th and early 14th century (Clark 1986 fig.8).

'Fiddle key' and other horseshoe nails

Four examples of horseshoe nails were identified; three of fiddle key type, for horseshoes with rectangular countersunk nail holes used during the Norman period and up to the mid-13th century, and one with a rectangular head, flush with shaft and with expanding 'ears' at the base, designed to sit in the countersunk holes used in horseshoes of transitional type, made between the second half of the 13th and early 14th century (Clark 1986, fig.7a).

5. [1027] (1028) Fill of Pit, Trench 6. Head and upper shaft of fiddle key type. Width of head 10mm.
6. [2087] (2089) B, Middle fill of Ditch. Complete but twisted nail of fiddle key type with semi-circular head flush with the shaft (Clark 1986, fig.5a). Nail is double-clenched; bent half way down and with tip bent over again when hammered back into the wall of the hoof (Clark 1986, fig.5b). Length: 30mm. Width of head 9mm.
7. [2059] (2060) Fill of quarry pit. Head and upper shaft of nail of fiddle key type. Width of head: 10mm.
8. [1027] (1028) Fill of Pit, Trench 6. Head and most of shaft of nail with rectangular 'eared' head. Length: 32mm, width of head: 9mm.

Fastenings and Fittings

All of the remaining identifiable iron objects were carpentry nails, a small number of which were complete. All were typical handmade carpentry nails with flat circular heads and tapering square-sectioned shafts, the complete examples being around 50mm in length; equivalent to the modern two-inch nail. The nails are detailed in context number order below.

9. 1009] (1010) Fill of Pit, Trench 6. One complete but bent nail (52mm) and two shaft fragments
10. [1027] (1028) Fill of Pit, Trench 6. Five near-complete nails with lengths of 35mm and 38mm, and three other shaft fragments.
11. [1027] (1033) Fill of Pit, Trench 5. Five nails including three with heads of up to 40mm in length. One other long shaft fragment (102mm) possibly not from a nail.
12. [1036]/ [1039] (1042) Slumping fill of Pit, Trench 7. Nail shaft (48mm).
13. [2036] (2037) B, Fill of large Pit. Nail shaft (58mm).
14. [2036] (2038) A, Fill of large Pit. Nail shaft fragment.
15. [2094] (2095) Fill of Ditch. Nail (35mm).
16. [2103] (2107) A, Fill of Pit. Two nail shafts (45mm).
17. [2110] (2112) Fill of quarry pit. Complete nail (52mm) and one shaft tip.
18. [2125] (2128) Fill of Pit. Nail shaft (48mm).

Miscellaneous Fitting

19. (2007), Occupational layer. Fragment of hollow rectangular copper alloy casing. Broken and open at both ends. Broken length 40mm, internal width 20mm, internal height: 5mm. Not recognisable as medieval in date and possibly a modern intrusion.

Sheet Fragments

Two amorphous fragments of iron sheet (25mm square) came from [2110] (2112).

Overview

This is a small assemblage consisting entirely of iron objects (if the copper alloy object is intrusive) relating to transport or agriculture (horseshoes and shoeing nails), and crafts or possibly household activity (knives and implement handle), with evidence for timber structural debris (nails). There is a complete lack of any dress fittings in copper alloy, indicative of residential occupation but in an assemblage of this size this is not necessarily surprising.

Animal Bone by Dr Julia E.M. Cussans

This small assemblage of animal bone shows the presence of several mammal taxa including both wild and domestic species (Table 3). Cattle and pigs appear to have been utilised for meat. Equid bones appear to represent a mix of horse and smaller equid, either pony or donkey, but as no measurable bones were available no firm conclusions can be drawn. Grant (1984) notes horses as being particularly important in the medieval period as pack animals and says that they were not generally eaten. However, the butchery evidence here suggests that some use was made of the equid meat, or that the bones were processed in some way.

	Medieval	Undated	Total
Cattle	10	2	12
Sheep/ goat	2	0	2
Pig	14	1	15
Horse	4	1	5
Fallow Deer	9	5*	14
Roe Deer	1	0	1
Large Mammal	53	6	59
Medium Mammal	85	4	89
Bird	2	0	2
Total	**180**	**19**	**199**

TABLE 3: Quantification of animal remains by NISP, * indicates antler only

The lack of sheep/goat remains at the site is somewhat unusual (see Bedwin 1992, Wade 1996 or Hutton 2004 for example) for the medieval period, as during this time the wool trade formed a key part of the medieval economy (Ryder 1983, Grant 1984, Sykes 2006). Sheep were also one of the main meat producing animals throughout the medieval period (Sykes 2006). Therefore, the lack of their bones in the assemblage here would seem to indicate one of two things, that either sheep/goat was neither produced nor consumed at the site or that their remains were disposed of elsewhere, but both of these scenarios would be quite unusual. A third possibility is that their remains are for some reason underrepresented. However, given the relatively good preservation at the site, the good recovery of similarly sized pig and deer remains and the lack of sheep/goat representation in the sieved material it would appear that the almost complete absence of sheep/goat is real and not a factor of poor preservation or recovery.

The relatively high proportion of fallow deer bones present is also of interest. Examination of data on the occurrence of fallow deer at UK medieval sites from the Dama International fallow deer project (gtr.ukri.org/projects?ref=AH%2FI026456%2F1) indicates that sites with high numbers of fallow deer bones tended to be high-status sites such as castles, ecclesiastical or manorial sites. Other rural and urban sites do contain occasional fallow deer bones but these are only present in very small numbers, for example one or two bones per site. Fallow deer have long been associated with high status and from the Norman period onwards in Britain. Sykes (2010, 58) notes fallow deer as 'an icon of social position, their consumption and management in privatised parks forming elements of the package through which the elite sought to distinguish themselves from the lower classes'. It should be noted here, however, that very little in the way of meat-bearing elements is present and the elements that are present (foot and head bones) may represent the use or processing skins. It is likely, however, that the attractive pelt of the fallow deer was also a prized possession.

Plant Macrofossils by Dr John Summers

During excavations at Dunmow Road, twenty-eight bulk soil samples were taken and processed for environmental archaeological analysis. All sampled deposits date to the medieval period, with the potential to provide information regarding diet and economy during this time.

Carbonised plant macrofossils were recorded in seventeen of the twenty-eight bulk sample light fractions (61%), with cereal remains (grains or chaff) present in fifteen samples (54%). The most frequently encountered cereal was wheat (*Triticum* sp.), remains of which were present in 50% of samples. All identifiable specimens were of a free-threshing type (*T. aestivum/turgidum*) and bread wheat (*T. aesticum*) rachis was identified in L2122 (F2087). Barley, including hulled asymmetric grains (*Hordeum vulgare* var. *vulgare*), was present in 14.29% of samples, while oat (*Avena* sp.) was present in 3.57% (1 sample). These cereal crops are all typical of the period (*e.g.* Carruthers 2008; Ballantyne 2005; Moffett 2006).

Also recorded were seeds of pea/bean (Fabaceae) in three samples (10.71%). Preservation was insufficient to determine whether peas or beans were present but the size of the specimens is indicative of cultivated taxa.

Densities of carbonised remains ranged from 0.025 items per litre in L2095 to 3.85 items per litre in L2122. The majority of deposits contained less than 0.5 items per litre of sediment. This concentration of remains is indicative of scattered carbonised debris which became incorporated into fills through natural processes rather than through direct deposition.

The material from L2122 was richer, although lower in density than would be expected for a discrete deposit of carbonised debris from a specific activity (*e.g.* drying or storage accident). The cereal remains were dominated by grains of free-threshing type wheat, with a small number of barley grains also present. Remains of free-threshing type wheat rachis, including bread wheat (*T. aestivum*), were also recovered. A ratio of free-threshing type wheat grains to rachis internodes, adjusted to include the relevant proportion of indeterminate grains and rachis, produced a result of 3.23:1. Unprocessed free-threshing hexaploid wheat can produce a ratio of 2-6:1, with up to six grains per rachis internode, depending on variety (*e.g.* van der Veen 1992, 82). Although it is difficult to be precise, the ratio calculated for the wheat remains in L2122 is consistent with un-threshed ears of bread wheat. This is supported by the number of seeds of non-cereal taxa, which produced a ratio for grains to weed seeds of 2.875:1. This is less than would be expected for a deposit of processing by-products and may also reflect un-processed ears of bread wheat. Two culm nodes were also present in the sample, which appear to support the interpretation. However, there is also the possibility that this sample represents the mixed remains from a range of sources, including crop processing by-products.

The non-cereal taxa in the assemblage included legumes (Poaceae), cleavers (*Galium aparine*), henbane (*Hyoscyamus niger*), stinking chamomile (*Anthemis cotula*) and wild grasses (Poaceae). These all occur as arable weeds. Henbane is more prevalent in nitrogen rich substrates, such as well fertilised fields, stinking chamomile is characteristic of heavy loam and clay soils and cleavers is generally more common in autumn sown cereals. These characteristics are

typical of the growing conditions required by bread wheat and it is likely that they are associated with the wheat remains in the deposit. Heavy soils predominate in the area of the site and the cereals are likely to have been locally cultivated.

The samples from Dunmow Road show a low intensity of cereal use and processing, and of the deposition of carbonised remains during the medieval period. The crop taxa identified were dominated by free-threshing type wheat, most likely bread wheat, with small amounts of barley, oats and pulses also recovered.

The bulk of the material is likely to represent the scattered carbonised debris of daily activities. None of the deposits suggest the intensive use or processing of cereals in the vicinity of the excavated features. The identification of a single deposit of probable unprocessed bread wheat in L2122 indicates the presence of unmodified cereal crops on the site during the medieval period. Whether this crop was cultivated by the site's inhabitants or imported from agricultural sites elsewhere is difficult to determine on the basis of a single productive sample.

DISCUSSION

The small finds assemblage contains items that would appear to be associated with daily domestic life or with agricultural activity; items consistent with 'toft and croft' type habitation. Some of these items, particularly the horseshoes and horseshoe nails, while possibly directly associated with agricultural activity, may be associated with transport. While transport, perhaps of goods for sale at market, may have been a concern of a medieval peasant household, the location of the site adjacent to a road of some antiquity (Dunmow Road follows the line of Roman Stane Street) suggests that it may have been directly associated in some way with traffic operating on this route.

The CBM assemblage contained crested ridge tiles or louvers, which are generally associated with high-status structures and unlikely to have been used on buildings at a site such as this. This material might have come from the nearby Thremhall Priory or from the tile kiln site to the west. The dates indicated by the CBM assemblage would certainly accord with the first couple of centuries that the Priory was in existence. This suggests that refuse deposits from elsewhere in the surrounding area may have been used for the infill of features at the current site. This may be further supported by elements of the animal bone assemblage. To the north of the site lay Stansted Park, a medieval deer park (Cooke *et al.* 2008), and to the south, the Royal hunting forest of Hatfield where deer were numerous (Hunter 1999). It is probable that the deer remains recovered from this site represent an animal from one of these locations but this does not explain their presence at a site considered to represent low-status domestic habitation. The deer of the parks and forests were protected by harsh laws, restricting their hunting to the more affluent and influential members of society. It is possible that these deer remains represent an act of poaching but in light of the presence of other refuse material transported from a high-status site it appears more likely that they arrived here through the same, or similar, processes and/or that they represent utilisation of the carcass for products other than meat.

The suggestion that some elements, at least, of the CBM and animal bone assemblages may have been imported from other locations in the surrounding area and are not representative of waste generated at this precise location indicates that other elements of these same assemblages and other finds assemblages recovered from the site are not directly indicative of evidence at this particular location either. Aside from the high-status elements present within the artefactual assemblages there is nothing other than proximity to tie the medieval activity at the current site to medieval occupation of Thremhall Priory. The CBM assemblage from AS' 2005 excavation at Thremhall Priory is almost exclusively of post-medieval date and, while there are similarities, the pottery assemblages do not appear to be closely comparable enough to determine a direct link (*c.f.* Thompson 2006).

The medieval landscape

In addition to the major elements of the medieval landscape that exist in the proximity of the site, such as Thremhall Priory and Hatfield Forest, and the possible tile kiln at Start Hill 800m to the east, various other evidence of the medieval landscape is recorded in the vicinity of the site. This includes cropmarks representing medieval boundaries at Tilekiln Green, Great Hallingbury (EHER 46554), a pottery scatter recorded at Pantile Farm (EHER 6722), an enclosure ditch recorded at Duckend Farm (EHER 7294), pottery recovered during fieldwalking associated with the Stansted Project (EHER 14329), and a moated mill which may represent Thremhall Priory Mill (EHER 4663). In the slightly wider area, the Stansted Project has identified a variety of medieval settlement sites, flourishing in the 12th and 13th centuries but abandoned by the 14th century (Havis and Brooks 2004). These have been interpreted as satellite settlements and farmsteads dependent on the Domesday manors of Colchester Hall and Bassingbourne Hall (Havis and Brooks 2004). This is suggestive of the dispersed rural settlement, generally occurring as hamlets and scattered farmsteads, that is characteristic of Essex (Hunter 1999, 95). Ward (1996, 130) has identified a period of settlement expansion and growth in north-western Essex, associated with a period of extensive assarting in the 12th and 13th centuries and a national rise in population. It is possible that the laying out of the main boundary system occurred as part of, or in response to, this period of settlement growth and expansion; ceramic dating evidence is broadly consistent with the later end of this period.

CONCLUSION

Archaeological excavation at this site has demonstrated that it was utilised during the medieval period for the extraction of clay and that it was divided up into separate plots through the excavation of boundary ditches. It is possible that this represents a 'toft and croft' type arrangement or possibly just a series of roadside enclosures. Finds evidence is suggestive of domestic habitation but no evidence for domestic structures was recorded and at least of some of this artefactual material may represent refuse deposits generated away from the site and transported to the site for the purposes of backfilling the open quarry pits and/or boundary features. Proximity and logic suggest that the site may have been associated with the nearby Thremhall Priory and so elements of the finds assemblage that appear to be of high status may have derived from there.

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The Rose and Crown, 109 High Street, Maldon

Tim Howson and J. R. Smith

Extensive building works at the Rose and Crown public house in 2015, which included the temporary exposure of most of the timber frame and erection of a large single-storey extension on the rear yard, provided an opportunity to survey, record and analyse the building's structural origins and development, and for an archaeological investigation to be carried out in the yard. This article presents the findings of the structural survey and is accompanied by information from documentary sources considered germane to the survey.[1] *A report of the archaeological investigation (which extended over one month, 9 March to 9 April 2015) compiled in March 2016 by Trevor Ennis awaits publication in print.*[2]

DOCUMENTARY EVIDENCE by J. R. Smith

The Rose and Crown (Red Lion before 1780) stands on the north side of Maldon High Street, abuts east on Butt Lane and lies within the ancient parish of St Mary (Fig. 1; Plate 1).[3] It comprises three distinct structures; two timber-framed houses with a combined High Street frontage of 19.7m, and a modern (2015) rear extension. In the medieval period and sixteenth century the yards to the rear of the two houses were defined and divided by a boundary ditch which ran broadly parallel to Butt Lane.[4]

The western house is the larger of the two houses, having a High Street frontage of 11.4m. In the sixteenth century it was known as Ricards,[5] which name is possibly to be associated with Richard Ricard, one of the Maldon men imprisoned and charged with trespass in 1401 by Robert Braybrooke, Bishop of London, and Walter Fitzwalter, 4th Lord Fitzwalter.[6] By the middle of the sixteenth century Ricards was owned by William Poulter,[7] a substantial mariner who had migrated from the Thames-side port of Leigh, his birthplace, where he retained property and commercial interests.[8] His migration had taken place by May 1545,[9] and in January 1546 he became a member (wardman) of Maldon's Common Council.[10] Poulter also owned at Maldon a house called Bagmans, which he purchased in 1549 and which stood near Ricards,[11] a wharf at the Hythe and shares in ships. In 1554 he became one of the founding members of Maldon Corporation and in February 1555 was named as an alderman in the borough charter from Philip and Mary.[12] Ownership of Ricards seems to have been settled by Poulter, prior to his death in June 1561, on his eldest son, William.[13]

FIGURE 1: Location of Rose and Crown shown on an Ordnance Survey map (Essex (*Eastern Division*) Sheet LIV.6), surveyed in 1873

PLATE 1: High Street and Butt Lane elevations of the Rose and Crown. Photograph by J. R. Smith, 3 July 2019

The eastern house in the sixteenth century was generally known as Cobbs at the Corner, the Cobbs element being a corruption of Jacobs.[14] The name Jacobs might be associated with John Jacob, another of the Maldon men imprisoned and charged with trespass in 1401 by the Bishop of London and Lord Fitzwalter, and one of the men named in the Bishop's grant to the burgesses of Maldon in 1403.[15] The remains of medieval iron working discovered during the archaeological excavations in 2015[16] might also be linked with Jacob, who was a smith.[17] In June 1564 the house was sold for £30 by Cornelius Peterson, a Maldon beer brewer, and his wife Margaret, to John Hills, another Maldon mariner. On its north side was a tenement owned by the Queen which had lately been occupied by Hills, and on its west was Ricards.[18] By 1575 Hills had sold Cobbs at the Corner to William Poulter (son of Alderman William Poulter, d.1561), a member (headburgess) of Maldon Corporation. The price was reported to be £12, a low figure for a house fronting the town's main street, and £18 less than Hills had paid in 1564.[19] In 1575 Poulter extended the house by 'enlarging of the groundsills',[20] and the following year paid the borough 5s for a retrospective licence 'to erect & enlarge his house att the Corner',[21] presumably because the enlargement had encroached on borough soil.[22] Ricards and Cobbs at the Corner were now in single ownership and have remained so to the present day.

Ownership of the houses then passed from William Poulter to his younger brother Richard Poulter of Leigh, who in 1599 bequeathed his house in Leigh to his wife for life on condition that she should surrender her right in 'Richardes' and 'Cobbes at the Corner' to his daughter Elizabeth and her husband Thomas Harrison.[23]

An alehouse licence for a house in St Mary's parish called the Lyon was granted in 1622 to Thomas Trowers,[24] yeoman and alehouse keeper, and licences were granted for a house called the Red Lion, in the same parish, to Trowers in 1627 and 1631,[25] to Henry Palmer in 1630,[26] and to Joanna Jackson in 1632 and 1633.[27] It is unclear whether the Red Lion at this early date, and indeed for the remainder of the seventeenth century, comprised both or one only of Cobbs at the Corner and Ricards, although structural evidence (see below) suggests the two buildings were combined in the seventeenth century. Both, however, were certainly included by the early eighteenth century. Evidence that Ricards was included appears in the will, 1716, of Abraham Bartlett the elder, a Maldon cordwainer,

in which bequests included two houses on the north side of High Street, the Greyhound (now No. 105) and the house on its east side (now No. 107) which was described as abutting east on the Red Lion,[28] while evidence that Cobbs at the Corner was included is to be found in the borough chamberlains' account for 1718.[29]

Information about sale prices for the Red Lion (which enables rough value comparisons to be made with other Maldon licensed houses) begins in 1665 when William Osborne, wheelwright, paid Landcheap tax on a recent purchase from Henry Symond, alderman and a joiner, for a figure reported to have been £80.[30] About twenty-two years later, in *c.*1687, Osborne sold the Red Lion, described as an inn, to Robert Beard for a sum reported to have been £60.[31] When Daniel Osenbrook (*alias* Ozenbrook) sold 'Jacobs alias the Red Lion' to Peter Hales and his wife, Mary, in *c.*1718, the price was reported to have been £75.[32] Ownership then passed to Anthony Ham, licensee from 1728 to 1733, who in *c.*1734 sold it to John Baker, a Maldon yeoman and victualler, for a price reported to have been £141, an increase of some 88% over the sale price reported to have been paid by Peter and Mary Hales about sixteen years previously,[33] suggesting that improvements may have been made. Ham also had a hop garden (in St Peter's parish), an indication that beer brewing probably took place at the Red Lion.[34] These sale prices were roughly in line with those of other licensed houses of approximately comparable size in High Street east of the junction with St Peter's Lane (Market Hill), that is, outside the market place.[35] For example, it was reported in 1699 that Robert Chadd had purchased the Ship for £120,[36] while in 1744 the Crown and a house adjoining on its east side were sold for the same price, £120.[37]

John Baker died in June 1771[38] and in September and October the Red Lion was advertised for sale; it was described as a 'Commodious Publick House or Inn ... with convenient Stables'.[39] The death a year later, in September 1772, of the licensee and tenant, Elias Sawall, led to another advertisement, this time for a new tenant.[40] The Red Lion was now described as a 'good and well-accustomed Inn or Public-House' and enquiries were to be directed to Mr Bones at Mundon or Henry Skingley at Coggeshall.[41] Skingley was a commercial brewer and this is the first indication of his link with the Red Lion.[42] When in spring 1780 the tenant, Thomas King, renewed his licence the house name was still the Red Lion,[43] but by October it had been changed to the Rose and Crown,[44] the name it has retained to the present day.

By 1790 John Bourne (a Mundon farmer) had 'lately' sold the Rose and Crown 'lately called the Red Lyon' to Henry Skingley, and the Rose and Crown became a tied house.[45] Skingley's acquisition may have taken place in 1787 or early 1788, for in 1788 a new licensee, Robert Haward, replaced Thomas King who had held the licence since 1778.[46]

After building works in the late eighteenth century (see next section), which included the rebuilding of the wall fronting High Street with brick, the Rose and Crown remained largely unaltered for the next two and a quarter centuries until its acquisition by J. D. Wetherspoon plc, which paved the way for major works in 2015 when a thorough investigation of the timber-framed structure took place, the topic of the next section.

BUILDING ANALYSIS by Tim Howson

The Rose and Crown incorporates two medieval timber-framed cross-wings; one at the west end and one at the east end (Fig. 2). The space between these structures is occupied by two seventeenth-century timber-framed rebuilt 'hall' ranges; the one to the east probably constructed shortly before the one to the west. Towards the end of the eighteenth century the timber-framed walls fronting High Street were replaced by a brick façade. At the same time the roof was rebuilt, involving the removal of the front gables to the cross-wings, and a parallel brick extension was added to part of the rear. The result is that, viewed from the High Street, there are few clues to the building's true antiquity. What follows is a description of the different parts of the building in the order that they were built.

The oldest structure on the site is the western three-bay cross-wing. Its carpentry style points to an early fifteenth-century date. The studs are widely-spaced, on average at 0.75m centres. The arch-braced tie beam between the front and the middle bays has an asymmetrical camber and finely-finished hollow chamfers. Most of the original crown-post roof has been replaced in the front and middle bays, but it survives intact with a half-hip and gablet in the rear bay. Pressure marks on the underside of some of the ceiling joists in the front bay confirm that the front of the cross-wing was originally jettied.

On the ground floor of the western cross-wing there were three rooms; one for each structural bay. It is plausible that the front room was a shop and that the middle room, which had no windows, functioned as store room for the shop. The ground-floor ceiling joists in the front bay are of better quality (having much less sapwood and wane) than the joists in the other two bays, which would be consistent with the front room having a superior, possibly commercial, function. The relatively wide spacing of the studs makes it difficult to detect original door positions, because each interval is wide enough to accommodate a doorway. There is a redundant mortice on a western storey post which may have been for the head of a doorway connecting the front room and the middle room, but the low height of the mortice makes this questionable. More conclusive is the evidence for a doorway leading from the middle ground-floor room into the hall to the east. This comprises a mortice for a doorhead, and a rebate and hinge-pintle for a door that swung into the cross-wing. There is an original stair trap in the south-east corner of the rear room. It is likely that there was a doorway between the middle and rear ground-floor rooms, but its position cannot be determined.

At first-floor level the western cross-wing originally contained a single three-bay solar. In the seventeenth century the rear bay of this solar was partitioned off to create a separate room at the head of the stairs. In the soffit to the rear tie beam there are mortices for an original first-floor window, comprising two diamond-section mullions. This window would have been unglazed. Early in the seventeenth century the rear wall of the crosswing was entirely rebuilt below the level of the tie beam and between the storey posts, at which date the original unglazed window was replaced by a glazed one with ovolo-moulded mullions.

The eastern cross-wing is much narrower than the western one, perhaps because it was not possible to extend the house plot eastwards onto Butt Lane. The studs are more closely spaced at *c.*0.50m centres, and the building is dateable to the late fifteenth or early sixteenth century. There is no evidence to

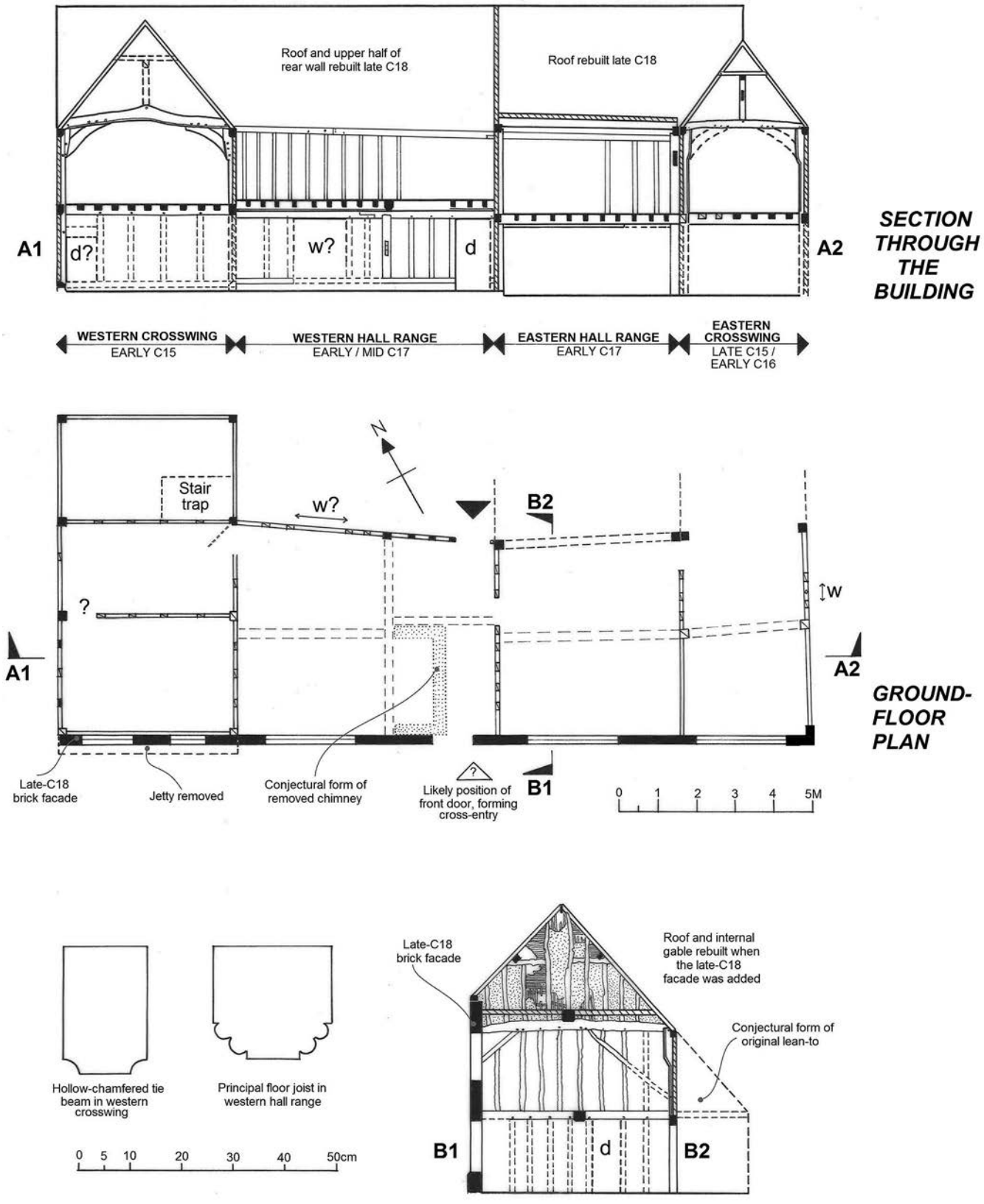

FIGURE 2: Interpretive survey drawings (Tim Howson)

confirm whether or not the front was jettied, but cross-wings of this date normally were jettied at the front. The 1575 reference to the 'enlargement of the groundsills' (see previous section) may relate to the underbuilding of the cross-wing's front jetty, although it would be quite an early example of this type of alteration. Enough survives of the cross-wing's crown-post roof to show that the front was gabled (Plate 2). Although only two bays of the cross-wing survive, the truncated form of the western wall plate suggests that the structure continued northward by at least one further bay.

On the ground floor, and unlike the western cross-wing, there was no partition between the two front bays. The doorway connecting the cross-wing and the hall range to its west was in the same position as the corresponding doorway in the

PLATE 2: Crown-post roof in the eastern cross-wing. Photograph by Tim Howson, 2015

western cross-wing. There was a two-bay chamber on the first floor over the surviving structure. The only evidence revealed for an original window was on the ground floor in the middle bay of the eastern elevation, looking out onto the junction of Butt Lane with High Street. The window comprised a single diamond-section mullion. There is a rebate in the rail above it, which housed an internal shutter.

Immediately to the west of the eastern cross-wing is a seventeenth-century 'hall' range. This range, named the 'eastern hall range' on the interpretive drawing, has jowled posts on the rear wall at its west and east ends. It had an open-framed arch-braced truss abutting the eastern cross-wing and had a closed truss at its western end. The closed truss (see drawings B–B2) has primary braces at the first-floor level. On the ground floor of this truss, a gap in the redundant mortices would suggest the presence of a doorway in an off-centre position. On the rear wall there was regular studwork at first-floor level, but no studs at ground-floor level. This indicates some sort of rear lean-to arrangement or outshot from the outset. There are mortices on the rear face of the storey posts which probably relate to the roof structure of this lean to. The studs on the first floor of the rear wall had wattle and daub infill between them.

To the west of this is another 'hall range', named the 'western hall range' on the interpretive drawing. The rear wall of this structure appears to be of two dates. The lower half dates from the early-mid seventeenth century and is topped by a mid-rail with an edge-halved scarf joint. The upper half dates from late in the eighteenth century and is topped by a wall plate with a face-halved scarf joint. Gaps in the lower-level studwork provide evidence for a ground-floor window towards the west end of the rear wall and a door at the eastern end of the rear wall. This seems to reflect a medieval-style hierarchical layout with a window at the high end of the hall and a cross entry at the low end. It is plausible that this seventeenth-century structure replicated the layout of the open hall it replaced. The first-floor structure of this range is framed to accommodate a chimney which must have backed onto a cross passage and heated the hall. A smaller late eighteenth-century chimney stack now occupies this position. The first-floor structure bears upon the range to the east of it, leading to the conclusion that that the western hall range is later than the eastern hall range. The first-floor structure has principal joists with an ovolo moulding, consistent with an early-mid seventeenth-century date. During the course of the 2015 renovation seventeenth-century light grey paint was found on several of the common joists (Plate 3).

The premises were substantially upgraded towards the end of the eighteenth century. A brick façade, with taller eaves, replaced the timber-framed fronts of the two structures and a two-storey brick extension was added across the rear of the eastern hall range and cross-wing. Diagonal pressure marks or

PLATE 3: Seventeenth-century grey paint on floor joists in the western hall range. Photograph by Tim Howson, 2015.

skintlings in the bricks in the façade and rear extension point to a date before *c.* 1800[47]. The roofs were replaced at the same time, except for fragments of the medieval roofs over the cross-wings. The internal gable between the two seventeenth-century hall ranges is contemporary with this phase. The upper half of the rear wall to the western hall range also dates from this phase, and is contemporary with the addition of an adjoining single-storey rear lean-to.

CONCLUSIONS

The Rose and Crown incorporates the remains of two medieval houses, Ricards and Cobbs at the Corner, of which only the outer cross-wings survive. The distance separating the two medieval cross-wings indicates that the two houses were probably single-ended, meaning each consisted of just an open hall and with a cross-wing at one end. Investigations over the past three decades have revealed that single-ended medieval houses were common in Maldon and Coggeshall.[48] At the Rose and Crown, if the layout of the western post-medieval hall was the same as the open hall it replaced, then the western cross-wing was a high-end one. It is likely that the front ground-floor room of this cross-wing was a shop, a theory supported by the superior quality of the floor joists; in that the best joists might be reserved for the room with a 'public' function.

The 1575 reference to the 'enlargement of the groundsills' during the ownership of William Poulter (the son) may relate to the underbuilding of a jetty on the front of the east cross-wing, which would be an early example of this type of alteration. The underbuilding of the cross-wing's jetty might be expected to have coincided with the reconstruction of the adjoining open hall on two storeys. However, the carpentry of the eastern hall range—which includes primary bracing and square-section floor joists—suggests it was built in the seventeenth century. Evidence for a ground-floor doorway in the western wall of the eastern early seventeenth-century hall range indicates that the properties had become combined by this date. This phase may have coincided with the buildings becoming a licensed house.

The erection of the High Street brick façade and brick rear extension, reconstruction of the upper part of the 'western hall range' and rebuilding of the roofs and internal chimney all probably took place when the Rose and Crown became a tied house, which occurred in the late 1780s (certainly by 1790) when it was purchased by Henry Skingley, a Coggeshall commercial brewer. Skingley undoubtedly had the financial resources to fund such work, and this date correlates with the character of the Georgian brickwork and timber framing.

ENDNOTES

1 Other information appears in Smith 2013 (under Red Lion, the name until 1780), 89, 177, 224.

2 See Bibliography.

3 The statement in Stubbings 1988, 15, that the Red Lion lay next door to the White Lion at Fullbridge is incorrect, as are most of the statements about the Red Lion and Rose and Crown in Stubbings 1988, 45.

4 Ennis 2016, 10 (section 4.2.5), 12 (section 4.6.6).

5 Description in enrolled conveyance (feoffment)of house on east side 27 June 1564 (ERO D/B 3/1/5 f. 121r).

6 *CCR Henry IV, vol. 1*, 1399–1402, 189. (ed. A.E. Stamp), (No other references to a Maldon resident with the surname Ricard have been noticed.)

7 Description in enrolled conveyance (feoffment) of house on east side 27 June 1564 (ERO D/B 3/1/5 f. 121r).

8 Petchey 1991, 69, 70.

9 He was named as 'William Pulter of Maldon ... mariner' when he was appointed an overseer of the will, made 6 May 1545, of William Raven, a Maldon yeoman with boats and ships at Maldon and Leigh (ERO D/ABW 31/45). (The statements by W. J. Petchey that Poulter was appointed an executor and named 'William Poulter of Leigh, mariner' are erroneous (Petchey 1991, 69)).

10 ERO D/B 3/1/2 f. 128r.

11 Poulter purchased Bagmans jointly with his wife Margaret (enrolled conveyance (feoffment or deed of gift), 29 March 1549, in ERO D/B 3/1/5 f. 11r). Bagmans stood in High Street a few doors west from Ricards, and lay in St Mary's parish.

12 ERO D/B 3/13/11. A translation of the Latin text is published *in extenso* in *CPR Philip and Mary,* vol. II, 1554–55, 95–7.

13 Poulter was buried at St Mary's, Maldon, on 27 June 1561 (ERO D/P 132/1/1). Ricards is not mentioned in his will (made 27 June 1561 and proved 16 August 1561, TNA PROB 11/44/289). One Maldon house only is mentioned; it was the tenement 'or mansion house' in which he lived, in the parish of St Mary, which was bequeathed to his wife Margaret with remainder to his son William. It seems likely it was Bagmans. For other information about Poulter see Petchey 1972, 92, 97–8, 170, 214, 338; Petchey 1991, 69–70, 155, 260.

14 In the early seventeenth century the lane flanking the east side of the house was known both as Jacobs Lane and Butt Lane (ERO D/B 3/1/19 p. 57). In the 1620s a tenement (not Cobbs at the Corner) belonging to Thomas Trowers was described as being in Jacob Lane (1620) and Butt Lane (1624–26) (ERO D/B 3/3/289, 294, 295). The name Jacobs was still in use in the eighteenth century, as in an entry in the borough chamberlains' account for 1718 for the payment of Landcheap tax on a purchase of 'Jacobs alias the Red Lion' (ERO D/B 3/3/503), in an entry for 'the Red Lyon formerly called Jacobs' in a rental of the manor of Little Maldon, April 1719 (ERO D/DMb M8), and again in 1737 when the homage of the same manor presented a recent change of ownership of 'the Red Lion formerly Jacobs' (ERO D/DMb M25). There was another messuage called Jacobs in the parish of St Mary; in *c.*1574 'Jacob's Tenement' was sold by Thomas King to William Browning (see entry for payment of Landcheap tax by Browning in the chamberlains' account for 1574 (ERO D/B 3/3/259)). It is shown on map, Figure 1, in Petchey 1991, 4–5.

15 (*CCR Henry IV, vol. 1, 1399–1402, 189); CPR*, *Henry IV,* vol. II, 1401–1405, (ed. A.E. Stamp), 1905 (HMSO, London), 307–8. (No other references to a Maldon resident with the surname Jacob have been noticed.)

16 Ennis 2016, 35, 36 (report section 5.11).

17 Jacob was described as a smith in the 1401 charge of trespass (*CCR Henry IV*, vol. 1, 1399–1402, 189 (ed. A.E. Stamp)).

18 Enrolled conveyance (feoffment), 27 June 1564, in ERO D/B 3/1/5 f. 121r. This early evidence of a link with Maldon's liquor trade may be coincidental.

19 See entry for payment of Landcheap tax by Poulter in borough chamberlains' account for 1576 (ERO D/B 3/3/261). Although the messuage was not named by the chamberlains there is no doubt it was Cobbs at the Corner. Poulter joined the Corporation in 1574 and remained a member until 1577 (ERO D/B 3/1/6).

20 Petchey 1991, 96.

21 Chamberlains' account for 1576 (ERO D/B 3/3/261).

22 A borough rental, 1597, records that 1d assize rent was payable by Peter Jarvis for Cobbs at the Corner, while the borough chamberlains' account for 1599 records the payment of the same rent for 'Cobbes at the Corner late Peter Jarvis' (ERO D/B 3/3/162). It is not known if the rent was in respect of an encroachment caused by the enlargement. Jarvis (a butcher) was probably tenant. For other information on Jarvis see Petchey, 1972, 9 and table 26.

23 Will of Richard Poulter, 'one of the principall Masters of her Ma[jes]t[y']s Roiall Navie', made 14 November 1599 and proved 6 March 1600 (TNA PROB 11/95/144). His wife was also required to surrender her right in Bagmans. For a synopsis of the will see Emmison 1978, 237–8 (where the date of probate and TNA reference are incorrect).

24 ERO D/B 3/1/19.

25 In other years during the period 1613–31 Trowers was granted a licence for an unnamed house (ERO D/B 3/1/19).

26 ERO D/B 3/1/19.

27 ERO D/B 3/1/20.

28 Will of Abraham Bartlett the elder, cordwainer, made 12 June 1716, with codicil made 16 July 1716, proved 6 October 1719 (WCA will 1728). Bartlett was buried at St Mary, Maldon, on 9 May 1719 (D/P 132/1/2). For further information on Bartlett see Smith 2013, 217, 278, 469, 475. For further information on the Greyhound and house adjoining to the east see Smith 2013, 216 (fig. 42), 217.

29 Entry for payment of Landcheap tax by Peter and Mary Hales on their purchase of 'Jacobs alias the Red Lion' (ERO D/B 3/3/503).

30 Chamberlains' account for 1665 (ERO D/B 3/3/92). Evidence that Osborne was a wheelwright appears in the will of John Jennings of Maldon, gentleman, 7 March 1669, in which he bequeathed, *inter alia*, a messuage and garden in St Mary's parish in the occupation of William Osborne, wheelwright (ERO D/ABW 65/269). Evidence that Symond was a joiner appears in an enrolled conveyance, 1661, of a house called Schoolmasters (ERO

D/B 3/1/34), and also in court book ERO D/B 3/1/19 f. 191.

31 Entry for payment of Landcheap tax by Beard in chamberlains' account for 1687 (ERO D/B 3/2/541). He then became licensee and held the licence until his death in 1695. He was buried at All Saints on 6 June 1695 (see entry in St Mary's register of burials (ERO D/P 132/1/4)). Beard was also a butcher and had held the licence of a house called the Ox Head, in St Mary's parish, in 1686 and 1687 (ERO D/B 3/1/23). He is not to be confused with another Robert Beard, alehousekeeper and brewer, who held the licenses of the Red Lion and Greyhound in the 1670s and who appears to have died in 1679 (he was granted the licence of the Greyhound in May 1679, but in 1680 and 1681 it was held by Jana Beard, widow.)

32 Entry for payment of Landcheap tax by Peter and Mary Hales in borough chamberlains' account for 1718 (ERO D/B 3/3/503). Peter Hales was listed as owner in a rental of the manor of Little Maldon compiled in April 1719 (D/DMb M8).

33 Entry for payment of Landcheap tax by Baker in chamberlains' account for 1735 (D/B 3/3/334); presentment by the homage of the manor of Little Maldon at a court held on 17 October 1737 of sale of the 'Red Lion formerly Jacobs' by Ham to Baker (ERO D/DMb M25); annual alehouse recognizances in ERO D/B 3/1/25. For information on John Baker see Smith 2013, 37, 77, 91, 148 (n.108), 480, 481.

34 See will of Samuel Pond of Maldon made 6 March 1732 in which bequests included a pightle 'lately used as an hop garden' by Ham (TNA PROB 11/699/10). See also Smith 2013, 190 n. 21.

35 Licensed premises in or near the market place generally attracted higher prices; for example, the price for the King's Head in 1744 was £525 (ERO D/B 3/1/36).

36 Report by borough's Grand Jury in ERO D/B 3/3/148. The purchase possibly included a piece of land (about half an acre).

37 ERO D/B 3/1/36. The Crown was renamed the Swan (its present-day name in 1764 (see advertisement by John Gow, staymaker, the licensee, in *I.J.*, 19 May 1764).

38 He was buried at Heybridge on 23 June 1771 (ERO D/P 44/1/1).

39 *Ch. Ch.,* 20 September 1771; *I.J.*, 5 and 12 October 1771.

40 Elias Sawall was buried at St Mary, Maldon, on 28 September 1772 (ERO D/P 132/1/3).

41 *Ch. Ch.,* 6 November 1772.

42 For information on Skingley see Booker 1974, 63; Smith 2013, 227.

43 ERO Q/RLv 34.

44 Auction notice for neighbouring premises in *Ch. Ch*., 27 October 1780.

45 Presentment by homage of manor of Little Maldon at a court held on 9 September 1790 (ERO D/DMb M26). For other information on John Bourne see Smith 2013, 253, 330. About the same time (in 1788) Skingley purchased the White Lion in Maldon (Booker 1974, 63).

46 ERO Q/RLv 32–42.

47 Kennell 2014.

48 Andrews and Stenning 1989 and 1996; Stenning 2013; Howson 2014.

ABBREVIATIONS

CCR *Calendar of Close Rolls*
CPR *Calendar of the Patent Rolls*
Ch. Ch. *Chelmsford Chronicle*
ERO Essex Record Office
I.J. *Ipswich Journal*
TNA The National Archives
WCA City of Westminster Archives

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The West Ham Marshes and post-medieval flood defences at Rawalpindi House, Newham

I. Grosso, G. Thompson, F. Meddens, D.S. Young and R. Batchelor

An evaluation and excavation at the site formerly occupied by Rawalpindi House identified Paleoenvironmental evidence spanning the Neolithic to the early post-medieval periods together with corroboration of human activity associated with the land reclamation of the marshes between the early 17th and late 19th centuries. The archaeological investigation found evidence for a history of repeated flooding. A 17th-century clay bank structure was unearthed alongside a section of palaeochannel along the west side of the site, consisting of a clay body resting on a wooden brushwood mat anchored by stakes at the base. Radiocarbon dating of the brushwood structure placed it between the early 17th and mid 17th century. Archaeological evidence of drainage works post-dating the clay bank was recorded down the south-east part of the site where several north-to-south and east-to-west orientated rectangular shaped cut features were sited deliberately filled in with rubble, to facilitate the drainage of excess water.

INTRODUCTION

In 2014, between 10 May and 6 June, Pre-Construct Archaeology Ltd (PCA) undertook an excavation at Rawalpindi House, Hermit Road, in the London Borough of Newham, (Fig. 1). The site measured *c.*4,600m² in extent and centred on TQ 3968 8204. It comprised a rectangular plot of land situated within an Archaeology Priority Area as defined by the London Borough of Newham. The property was delimited to the north and west by houses fronting Clifford Road and Tyas Road respectively, by the Hub building to the south and by Hermit Road to the east, and it had *previously* been occupied by Rawalpindi House, an X shaped single story care home. The investigations (Grosso 2015) comprised the exploration of six test pits (TP 1 to 6) and two areas of excavation (Area A and B) (Fig. 1) (Hawkins 2014). The latter followed the evaluation, undertaken between 10 and 14 February 2014 by one of the authors (Grosso 2014). The initial evaluation consisted of the excavation of five evaluation trenches (Fig. 1) which demonstrated that organic Holocene peat deposits survived under alluvial clay and made ground. Peat deposits were recorded in the central and southwest corner of the site in trenches 2, 3, 4 and 5 and alluvial clays in trench 1 located in the eastern part of the site. Underlying clay deposits in trench 4, a well-preserved man-made structure consisting of brushwood branches resting directly on top of a peat deposit [18] was exposed. Subsequent C14 dating of this structure gave a date of AD 1615 to 1660 (BETA–374329; 290±30BP). An extended excavation area (Area A) measuring 10.71m east to west by 8.60m north to south centring on Evaluation Trench 4 was opened up (Fig. 1) and a second excavation area (Area B) measuring 13.29m east to west by 8.86m north to south was freed to the south covering most of the former Evaluation Trench 5 and the adjoining space. This was done to investigate the peat deposits observed there during the evaluation. In addition, six further test pits (TP 1–6) were dug across the site to provide a deposit model of the peat and the palaeoenvironmental sequence below it. The complete archive, comprising written, drawn and photographic records, has been deposited at the Museum of London Archaeological Archive (formerly LAARC) under site code HER14.

Archaeological and historical background

The landscape surrounding the lower Lea Valley has been occupied since early prehistory. The terrace gravels and the overlying silts, clays and peat deposits represent a series of paleoenvironments with considerable biodiversity ideal to provide a significant array of resources to past populations. The earliest artefacts, of Palaeolithic date, were found by W.G. Smith before 1882 to the east of the site in unspecified works on the east bank of the River Lea in the Plaistow area (SMR/HER No. 061626/00/00), whilst to the north, east of Holland Road, five handaxes are known to have been recovered (SMR/HER No. 060588/00/00).

Evidence for Mesolithic remains was recorded at Prince Regent Lane (PRG97) in the form of flint flakes found within a sub-soil capping a gravel island. This Mesolithic horizon was in turn sealed by a Bronze Age soil in which over 1,300 fragments of flint tools, debris and pottery were found. This site was interpreted as a seasonal or temporary camp situated on an island of dry land with good access to the major transport 'highway' of the River Thames.

Structures such as timber trackways, were constructed across the marshes to exploit wetland pasture for summer grazing for livestock (Carew *et al.* 2010; Meddens 1996) and to gain access to timber resources.

In Butcher Row peat deposits containing burnt flints, pottery and wood dating to the Bronze Age were identified whilst flint tools of Neolithic date and animal bone were found at the Elizabeth Fry School to the north of the site (Meddens 1996). The Roman period is not well represented in this part of the Lower Lea Valley. Residual Roman pottery was recovered from a 19th-century deposit at Prince Regent Lane and two drainage/boundary ditches, were recorded at Alexandra Street to the north, with this site producing pottery and ceramic building material dated to this time as well.

Founded in the Saxon period, in *c.*AD 666, Barking Abbey to the east exemplified one of the wealthiest and earliest religious houses in England (Page and Round 1907, Kemble this volume). It had a wide sphere of religious and political influence whilst to the north east of the site Plaistow may have Saxon origins (Sadarangani 2003, 13).

A Ham is mentioned when in AD 958 King Edgar granted land to an Ealdorman of East Anglia. However, at this stage,

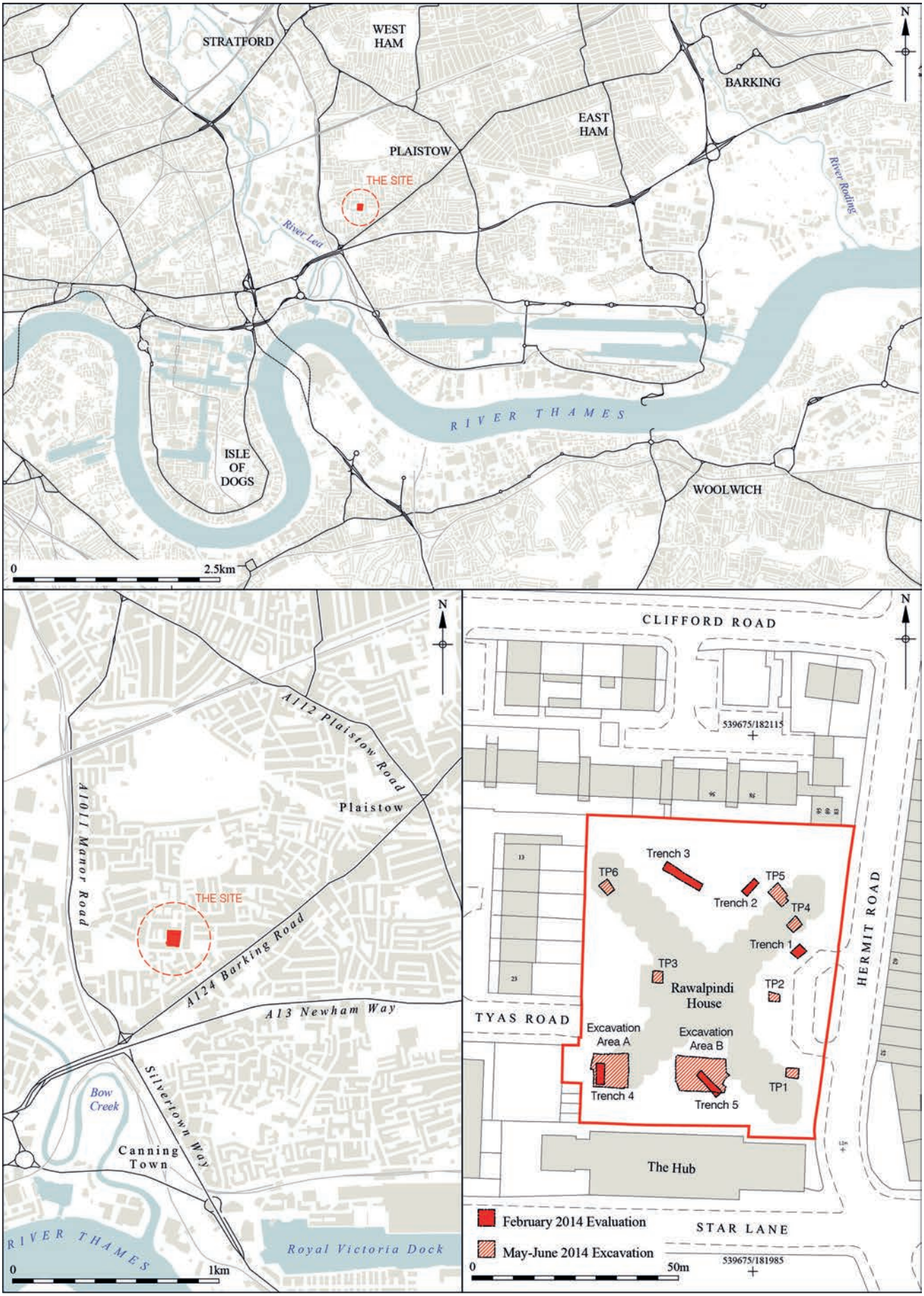

FIGURE 1: Site and trench location

there was nothing to distinguish West Ham from East Ham (Sadarangani 2003, 13).

In AD 1086 the manor of Ham had a recorded population of 130 which is relatively large for this period. By the 12th century there is a first differentiation of East from West Ham and by AD 1381 a total of 238 people were paying poll-tax (Powell 1986, 11). Plaistow Village, first documented in AD 1414, is one of four settlements in the West Ham parish together with West Ham Village, Stratford, and Hook End (Powell 1986) (Fig. 2).

To the north of the site the West Ham Manor, which in the 12th century was known as Sudbury, was acquired by Stratford Langthorne Abbey (Powell 1986). This Cistercian monastery was founded in AD 1135 and controlled 1,500 acres (6.07 km²) of land. On the 25 of July 1135 William de Montfichet granted the monks of the abbey the lordship of (West) Ham, two mills by the causeway of Stratford, his wood of Buckhurst and the tithe of his pannage (pasturage for pigs in woodland) (Barber *et al.* 2004).

In the 14th and 15th century West Ham is recorded as having been stricken by occasional floods (Powell 1986) and during the whole of the medieval period the site and the surrounding area would have lain within the marshland which dominated this part of the Lea Valley.

During the second half of the 16th century West Ham was under the jurisdictional control of the Court of Sewer. West Ham level was divided during this time into five marshes. These comprised Trinity marsh (212ha) adjoined East Ham, to the west of which was New marsh (212ha) which was in turn adjoined by the Middle marsh (119ha) (Fig. 2). Near the mouth of the River Lea was Hendon Hope and Laywick (marsh) (16ha) and to the north of this between the Middle marsh to the east and the River Lea to the west lay the West marsh (154ha) (VCH Essex 1973, 93–96). It was in the latter that the site which is subject of this paper was located (Figs 2–3).

By AD 1563 the river wall on the eastern side of the River Lea, which had been constructed to protect the marshes from flooding, was about 8.85km long (VCH Essex 1973, 93–96).

Natural geology and topography

The site lies *c.*700m to the east of the River Lea and *c.*1400m to the north of the River Thames, near their confluence, in the lowest part of the Lower Lea Valley (Corcoran *et al.* 2011, fig. 21) (Fig. 1) with the land lying on alluvium over London Clay (BGS 2006, map sheet 256). This alluvium is associated with the River Lea floodplain, where the site is at its lowest, modern ground level at the time of these investigations being at a level of 0.30m OD.

The site is situated within the area investigated as part of the Lea Valley Mapping Project which divided the Valley into Landscape Zones defined by their Holocene landscape history. The data set used for these landscape reconstructions was based on borehole records (Corcoran *et al.* 2011). The excavated area lay within Landscape Zone 1.1a, which typically comprises a gravel surface ranging between levels of *c.*–3.0 and –5.0m OD and Holocene alluvium made up of fine-grained mineral-rich sediments and occasional peat development, characteristic of formation in an active channel environment.

FIGURE 2: Parish and former marsh boundaries

FIGURE 3: Site location on 1799 Ordnance Surveyor Sheet

THE EXCAVATIONS

Prehistoric to early post-medieval sequence

The earliest deposits observed on site were in TP 5 and Area B (Figs. 4a and 4b). They consist of early peats [101] and [122] found at –2.12m OD and –2.46m OD respectively. In turn these were overlain by a firm blue alluvium, which was also observed in TP 2, TP 4, TP 5 and Area B, at the upper and lower levels of –1.14m OD in Area B and –2.04m OD in TP 4. A later phase of flood plain regression was identified comprising peat layer [99] uncovered at –0.83m OD and sealing the firm blue alluvium in TP 5.

Peat deposits were also exposed in evaluation trenches 2, 3, in TP 2, 4 and Area B. These were allocated context numbers [4], [6], [20], [118] and [51] respectively. Their upper surface was at between –0.65m OD in Area B –1.12m OD in Evaluation Trench 2.

The eastern part of the site.

The archaeological investigations uncovered evidence for substantial deposits of alluvial clay along the eastern side of the site. Here, in Evaluation Trench 1, TP 1 and TP 4 alluvial clay was present at a high of 0.03m OD in Evaluation Trench 1, and at a low of –0.73m OD in TP 4. The upper horizon of the alluvial clay graded to an organic rich clay towards its lower horizon.

The marsh sequence in the western part of the site.

Further evidence of flooding represented by natural incision and scouring through the peat deposits was observed alongside the west side of the site. Archaeological evidence for this event was detailed in Area A, TP 3 and TP 6. In Area A, the excavation of an E–W slot allowed the identification of a sequence of inorganic alluvial clay deposits interspersed by the formation

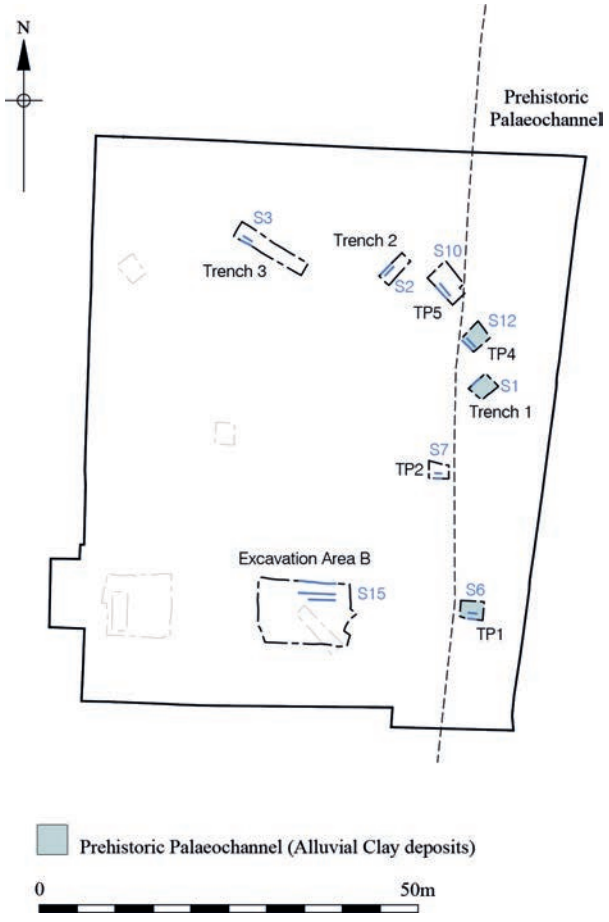

FIGURE 4A: Projected palaeochannel and trench and section locations

of peat [162] and [88] (Fig. 5). The overall maximum thickness of these layers was 0.65m with peat layer [88] representing the most recent phase of peat formation. This in turn was sealed by a very thin layer of peat logged as [126] and interpreted by the excavators as being derived from 'moss' formation at –0.83m OD. The full extent in plan of these layers is unknown as they projected beyond the limits of excavation in Area A. However, similar alternate sequences of clay and peat were recorded in TP 3 and 6 (Fig. 5) to the north of Area A and suggest a north-to-south orientation for these layers.

Discussion of the prehistoric to early post-medieval environment.

The earliest sequence of organic (peat) and minerogenic fractions (alluvium) was in the central part of the site following a north-to-south orientation. These deposits corresponded to changing conditions, from a waterlogged vegetated land surface (peat), to tidal mudflats and salt marsh (alluvium) as these formed in shallow (regression) and deeper, flood plain (transgression) phases as sea and river levels fluctuated over the Holocene (post-glacial) period. Environmental samples from layer [99] were C14 dated to 1750–1620 cal BC (BETA–391875; 3390±30BP) at the top at –0.73 to –0.78 OD and to 2880–2580 cal BC (BETA–391876; 4140±30BP) at –1.02 to –1.07 OD at the base of the peat, a period ranging from the middle Neolithic to the Middle Bronze Age (Table 1).

The clay deposits located in the eastern part of the site had a thickness varying between 1.40m in Evaluation Trench 1 to 0.35m in TP 4. These were interpreted as the silting up of a natural cut following on from a deflation event caused by water erosion of peat layer [99]. These clay deposits were found on a north-to-south orientation possibly suggesting the presence of a palaeochannel alongside the eastern part of the site.

Similarly, in the western part of the site, the clay layers are interpreted as resulting from flood deposits associated with saltmarsh formation followed by a dryer semi aquatic environment represented by the peat formation. Radiocarbon dates obtained from column samples <4> previously collected from Evaluation Trench 4 dated this peat layer [88] to 1450–1640 cal AD (BETA–391877; 350±30BP). The pollen data is indicative of an alder dominated carr woodland occupying the peat surface [88] with a ground flora incorporating grasses, sedges, and ferns. The 'moss' layer [126], which sealed [88] confirms that this part of the sequence had a relatively stable semi-terrestrial environment which would at the time have been suitable for embankment (Young and Batchelor 2014; environment discussion below).

The results of the archaeological investigations (Grosso 2015, Appendix 7) revealed the presence on site of at least two different aged peat horizons. In the southwest corner of the site in Evaluation Trench 4 the peat was dated to the early to mid-17th century, whilst in TP 5 located in the northeast corner the peat was dated to between the Neolithic and Bronze Age periods. What is more the pollen data showed that the sequences represented in Trench 4 and TP 5 had distinct vegetation histories (environment discussion below).

Post-medieval (17th to late 18th century)

The 17th to late 18th century saw the construction of a clay bank (Fig. 6) alongside a suggested north-to-south orientated channel west of Area A. The latter was largely situated beyond the western site boundary and appears on the 1799 Ordnance Surveyor Sheet, as well as on the first edition Ordnance Survey map of 1873 (surveyed 1863) (Figs 3 and 7). The conduit as depicted on these maps is perfectly straight and therefore clearly managed and canalised. At its southern extremity, on the south side of Star Lane, it is seen to drain into one of a number of natural braided channels running across a wet marsh (Figs 3 and 7). The elements of the archaeologically uncovered structure comprised two principal components, firstly its base, resting on peat layer [88] and 'moss' layer [126]. The base consisted of cut brushwood branches [120]/ [96]/ [95] placed on an approximate east-to-west alignment with the feature itself extending on a north-to-south orientation. This cut brushwood mat would have formed the foundation to anchor the second structural element, the clay body forming the bank. It represented the highest surviving part of the base with a regular curvature at the top. To the east, it abutted further foundation elements comprising brushwood matt [123] / [124]. Here the cut twigs and branches were aligned north-to-south and were further anchored by twenty-six stakes which were designated post-hole group [192]. The superimposed clay body (numbered [83] / [84] / [85] / [121] / [125]) was placed on top of the brushwood mat to form a clay bank (Fig. 6). The materials used for the construction of the bank would almost certainly have been obtained locally as both clay and appropriate timber would have been available on the spot in abundant supply.

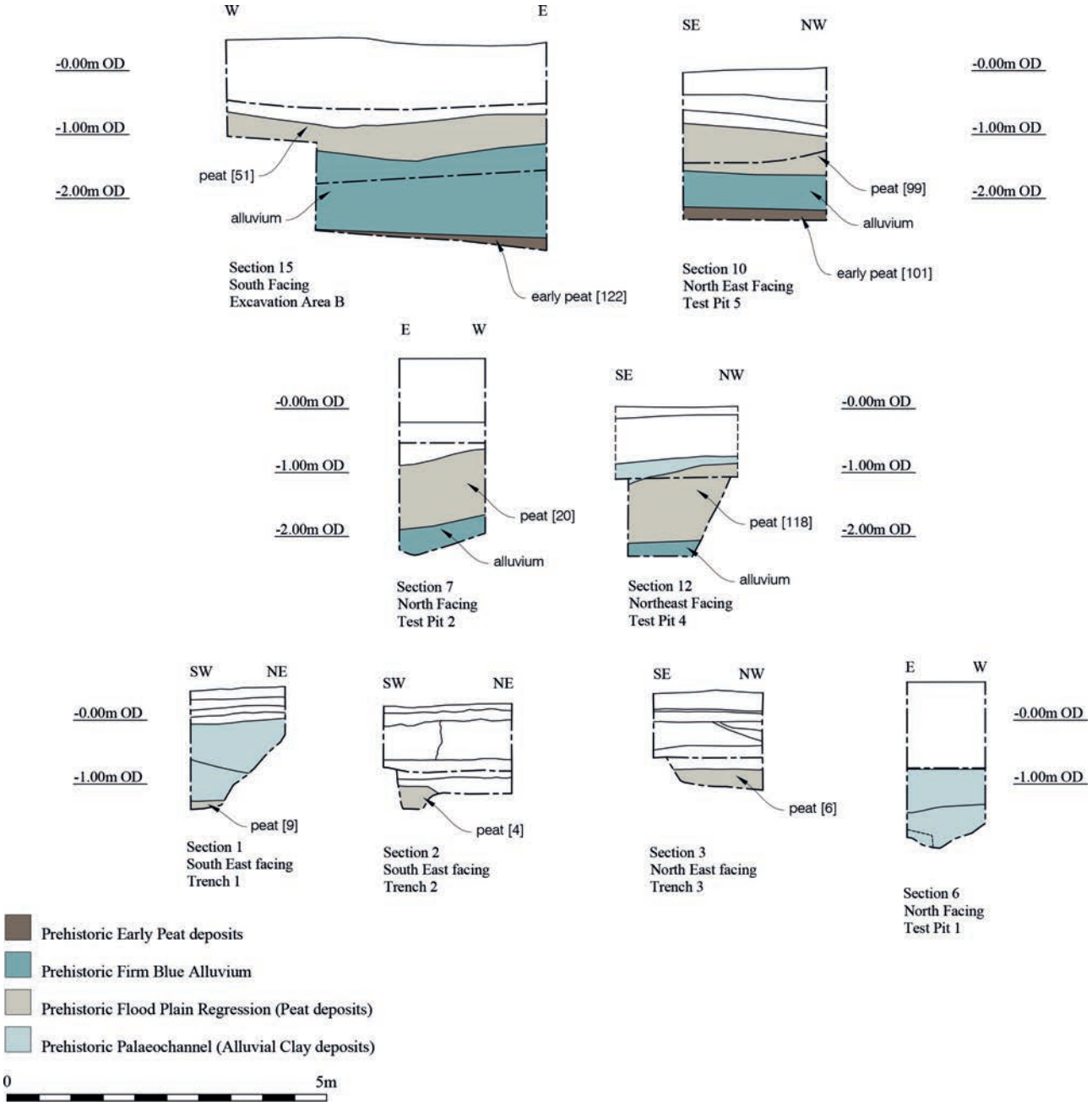

FIGURE 4B: Sections with alluvial and peat sequences and palaeochannel

The brushwood base, for the bank formed a structure as demonstrated in excavation with a length of 6.96m north to south, albeit that the feature clearly extended well beyond the edges of excavation. The various patchy east-to-west aspects suggested a width of circa 6.66m east to west, with a surviving but clearly truncated thickness of 0.5m along the west side decreasing to 0.27m to the east. The material used in the brushwood mat likely was willow (Goodburn 2015). Willow was the standard material for this element of bank construction into modern times (Plasschaert 1898). The upper side of the brushwood base alongside its western margin was recorded at between –0.71m OD and –0.92m OD in Area A whilst along its eastern side it decreased to levels of between –1.04m OD and –1.15m OD on top of contexts [123] and [124]. Radiocarbon dating of the base of structure (Grosso 2014) confirmed a calibrated age of AD 1615 to 1660 (BETA–374329; 290±30BP) corroborating an early to mid-17th century date for the structure.

The clay body above the brushwood mat was constructed of re-deposited alluvial clay, probably quarried from the adjacent channel (to the west) placed in layers on top of the brushwood base to create the clay bank with the main body raised above its eastern and western sides (Fig. 6). The clay element was found at an upper level of –0.53m OD and a lowest point of –1.01m OD. It must be noted that the re-deposited clay member was truncated horizontally by modern activity. This means that the top height of the clay bank can only be speculatively based on the calculated measurements of standard embankment dimensions (Plasschaert 1898).

The archaeological evidence revealed an attempt to drain excess water following erosion damage to the clay bank structure. Re-deposited alluvial clay [121] which would have

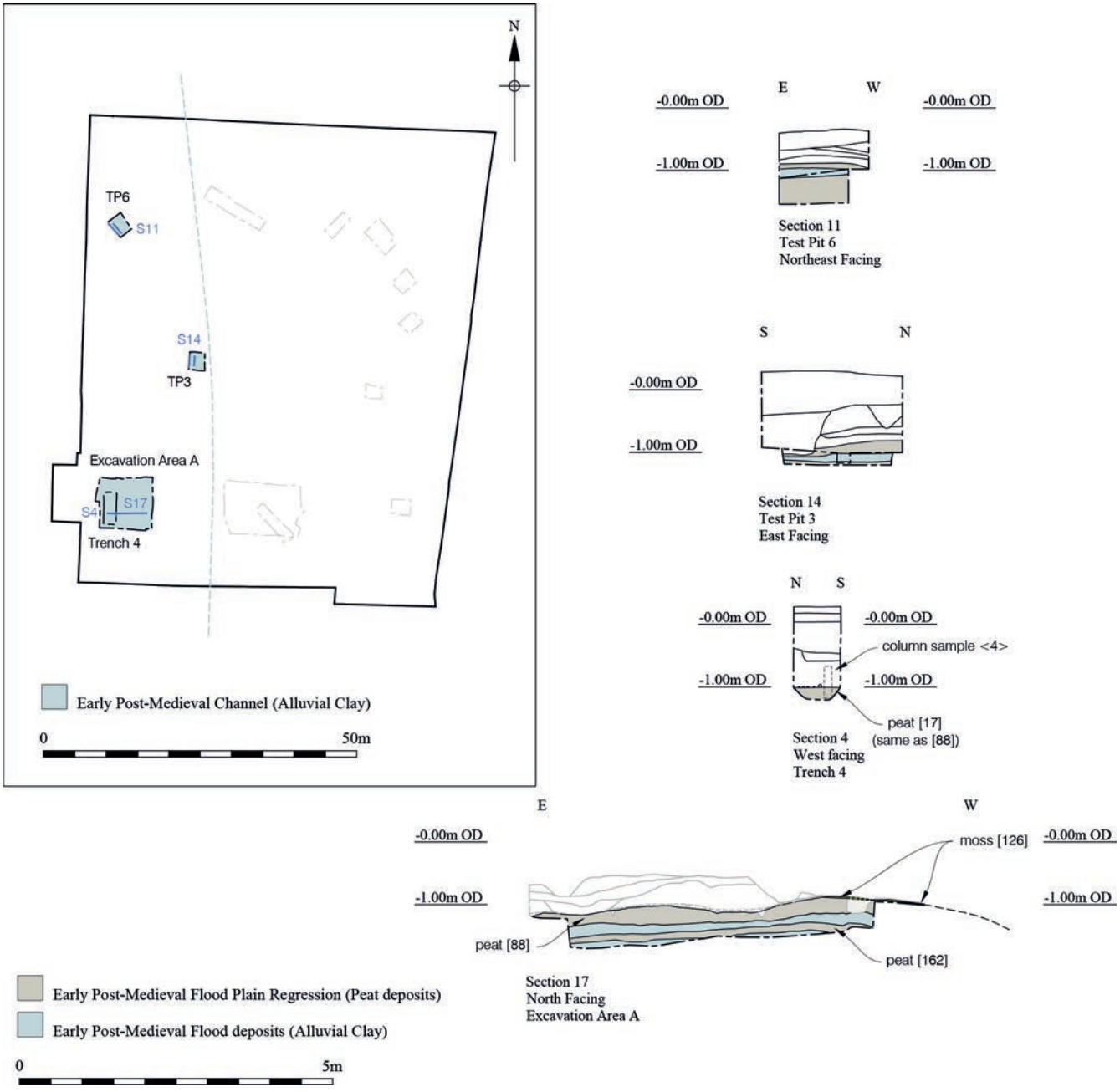

FIGURE 5: Post-medieval alluvial and peat sequence, sections locations and sections

been part of the bank had been truncated on its east side by feature [191]. This was observed in section only (Fig. 6, section 13 and 17). Its upper impact was at –0.91m OD, and the cut was 1.28m wide, had regular and gradual sloping sides and was filled with organic silt peat clay [190]. The construction of this cut partially truncated the eastern part of structure [193] as the gap between brushwood [123] to the west and brushwood [124] to the east corresponded to the position of the projected line of the north-to-south orientated cut feature [191]. The extensive truncation of the bank is evident both in the patchy remains of the basal mat as well as the irregular remains of the bank itself (Fig. 6).

Evidence for environmental changes on site, post-dating the construction of the clay bank was confirmed in the formation, of the top of fill [190] in cut [191], of peat layer [79] and additionally peat layers [78] / [80] / [87] localized in parts of Area A. This peat formation is indicative of drier conditions which allowed vegetation growth along the eastern section of the clay bank structure. Ceramic building material recovered from context [79] dates this peat horizon to between 1600 and 1800.

Further indications of peat formation later than the clay bank were identified to the north of Area A in TP 3 and 6 where clay layers [105] and [112] were overlain at –0.58m OD and 0.44m OD by peat layers [104] and [111] respectively.

Discussion of the post-medieval (17th- to late 18th-century) activity.

Given the location of the site within a marshland environment, the construction of structure [193] is unsurprising. The archaeological and environmental evidence from Area A shows that the construction of the clay bank was undertaken

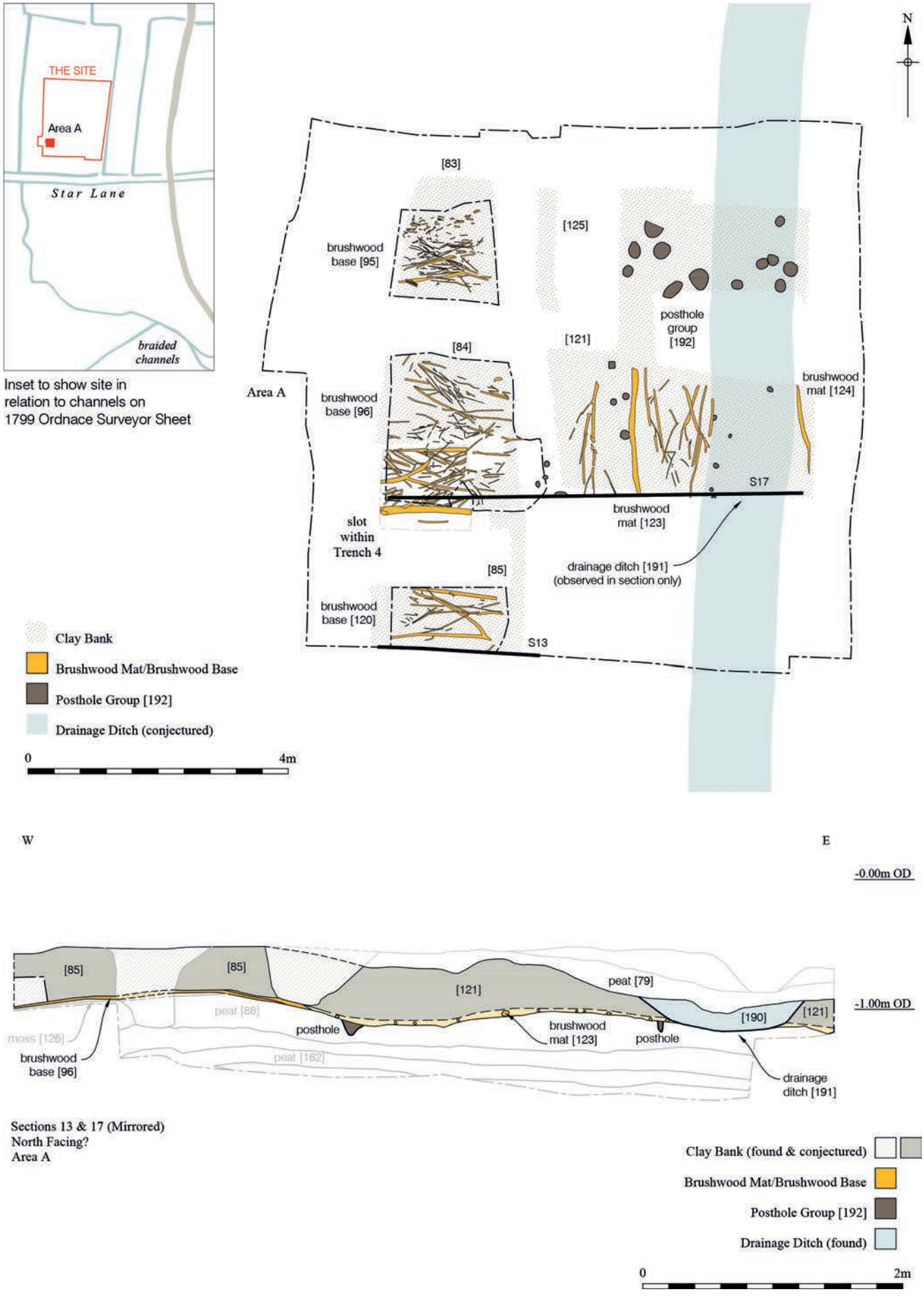

FIGURE 6: Post medieval clay bank, brushwood base, and anchoring posts and drainage channel

using material sourced locally such as the brushwood and the alluvial clay. The most likely supply for the clay element of structure [193] was from alongside its western side. The palaeoenvironmental and archaeological evidence shows the presence of a shallow marsh sequence, characterised by dryer and wetter episodes represented by peat and alluvial clay deposits. Along its western edge is the suggestion of a deeper wetter section situated beyond the western site boundary, constituting a north-to-south orientated palaeochannel with, by post-medieval times, a late version of this being still active at the time structure [193] was built. Confirmation for a former watercourse on the west side of the site was given by the height of the water table encountered in excavation here. This was substantially higher alongside the western edge of the site and was observed across all the archaeological trenches and test pits. Additionally, as stated above, the 1799 Ordnance Surveyor Sheet, as well as the first edition Ordnance Survey map of 1873 (surveyed 1863), illustrates a channel in the relevant location (Figs. 3 and 7).

Post-medieval (19th century)

In Area A the peat formation post-dating the construction of the clay bank, was overlain by firm light greyish brown silt clay alluvium recorded as [81] / [82] / [86] between –0.56m OD and –0.72m OD with context [81] containing dating evidence in the form of pot sherds of between 1830 and 1900. In Area B, the alluvium pertaining to this period was recorded as [24] / [182] at levels between 0.57m OD and –0.38m OD with context [24] producing residual pottery dating to between AD 1200 and 1350.

Further archaeological evidence of alluvium consistent with a 19th-century date came from TP 2, TP 4, TP 5, and TP

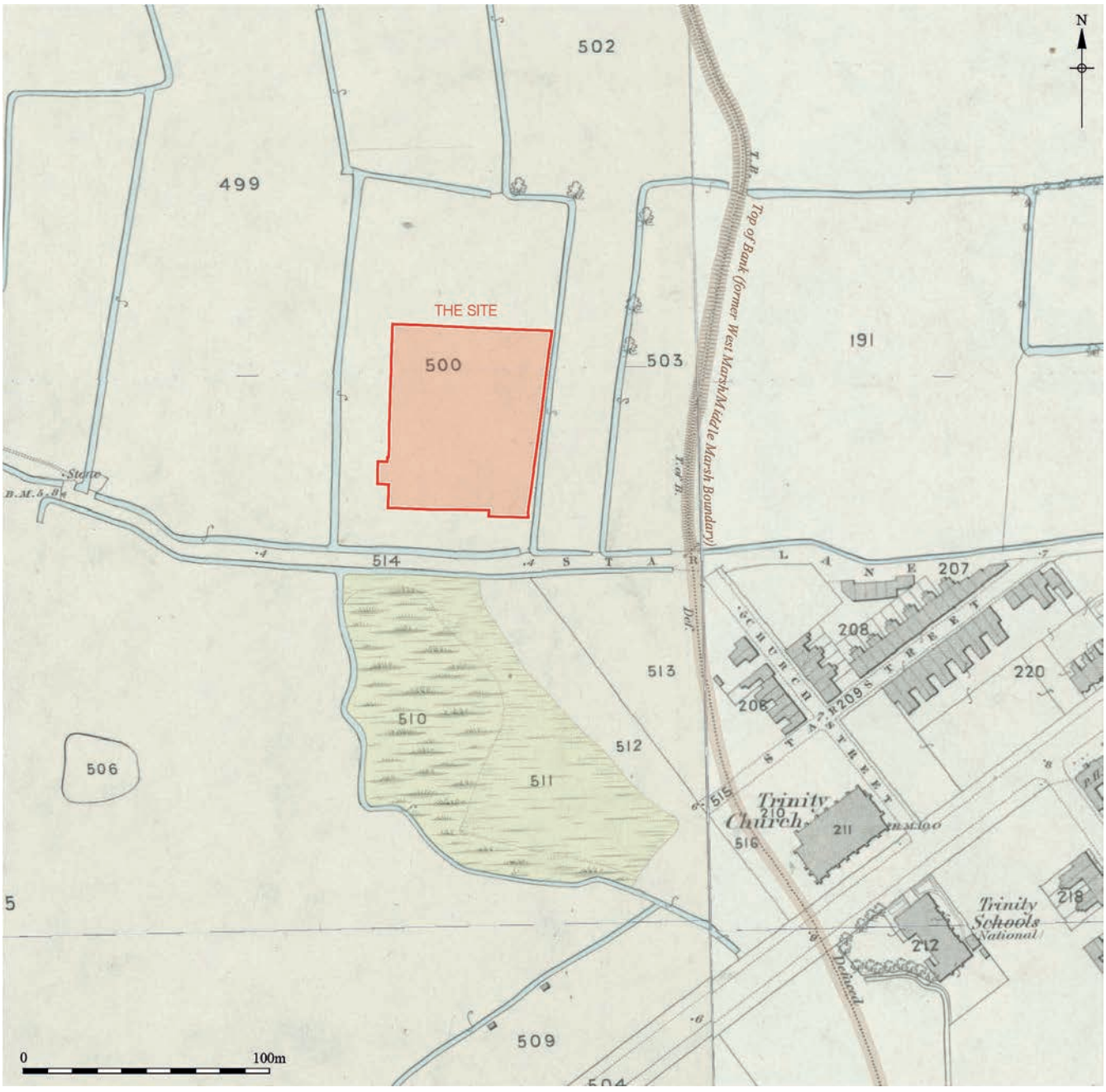

FIGURE 7: Ordnance Survey map of 1873 with drainage and marsh features

6 where it was present at levels of between –0.09m OD and –0.56m OD. The presence of this alluvial clay shows that the embankment was breached during the late 18th or early 19th century, with water levels rising, resulting in the formation of a flooding deposit logged as [116] in TP 4 with an upper level of –0.09m OD.

The 19th-century alluvial deposit in Area A was truncated by several rectangular features, (cuts [56], [58], [60], [62], [64], [66], [68], [72], [74], [90] and [184]). These were orientated both north-to-south and east-to-west. None were fully excavated as they were deeper than the water table and unsafe to be dug out to their base. All these deep, regular, and rectangular features contained similar fills with a comparable configuration; having similar compaction and inclusions and a high content of fragmentary ceramic building material, dated to the second half of the 19th and the first half of the 20th century. These cuts once backfilled with this rubble fill would have functioned as soakaways with the aim of draining excess water across this part of the site.

Archaeological evidence for more drainage works was exposed in the eastern part of Area B. Here the 19th-century alluvial deposit [182] was truncated by a north-to-south orientated ditch recorded as cuts [188] and [48], which extended beyond the northern and southern limits of excavation. The base of this ditch was at between –1.15m OD at its southern end and approximately –1.10m OD at its northern extremity, with a gradual north-to-south direction of flow. It was interpreted as a drainage channel which silted up during the late post-medieval period.

Alongside the eastern margin of this conduit various timber stakes were revealed. These extended over a length of 2.47m on a rough north-to-south orientation and were interpreted as being part of a fence line alongside the east side of ditch cut [188] / [48]. It is likely that the drainage feature and fence line also acted as a property boundary between two fields.

A number of sub-square and sub-circular cut features were found across the western half of Area B. These were shallow and had flat bases. They may represent the lower parts of post holes associated with the construction of an ephemeral wooden structure.

Discussion of the post-medieval (19th-century) activity.

The archaeological evidence from Areas A and B shows that by the 19th century the north-to-south orientated clay bank structure [193] had ceased to function as an effective flood barrier. A sequence of later post-medieval alluvial deposits, which were stratigraphically later than structure [193] had been truncated by the excavation of deep soakaway features to facilitate the drainage of excess water across this part of the site. The layout of these elements supports the notion that an active north-to-south orientated watercourse or ditch was located immediately west of Area A during the later post-medieval period.

The remaining possible posthole elements across the western half of Area B were interpreted as part of a transient wooden structure, perhaps a green house or other garden feature as such structures are known to have been present in the area (Waltham Abbey Town Partnership 2019) prior to the urban expansion of the late post-medieval period as show on the 2nd edition OS map of 1894.

THE ENVIRONMENTAL EVIDENCE

The tripartite sequence of deposits recorded above the Lea Gravel on the central and eastern parts of the site is similar to that recorded across much of the Lower Thames Valley and its tributaries (Green *et al*. 2014). The silty clay with mollusc and other macrofossil inclusions appears to be the equivalent to the Lower Alluvium, deposited during the early to mid-Holocene when the main course of the Thames and its tributaries were probably confined to single meandering channels. During this period, the surface of the Lea Gravel was progressively buried beneath the sandy and silty flood deposits of the river. Its richly-organic nature, suggests that this was a period during which the valley floor was occupied by a network of actively migrating channels, with a drainage pattern on the floodplain that was still largely determined by the relief of the underlying Lea Gravel surface.

Peat overlies the Lower Alluvium indicative of a transition towards semi-terrestrial (marshy) conditions, supporting the growth of sedge fen/reed swamp and/or woodland communities across the floodplain. The widespread occurrence of this peat during the middle Holocene (*c.* 5000–2000 cal BC) indicates a general transition to a more stable valley floor associated with falling relative sea levels and slight incision of the main channel of the Thames and its tributaries, encouraging the development of semi-terrestrial conditions across most of the floodplain.

The clay that overlies, and in some cases fills truncated sections of the Peat, is representative of the Upper Alluvium. The Upper Alluvium is typical of the mineral-rich sediments that constitute the uppermost element of the Holocene sequence beneath most floodplains in southern and south-east England. It is generally considered to reflect increased sediment loads resulting from intensification of agricultural land use from the later prehistoric period onward, combined with the effects of rising sea level.

On the western side of the site, the complex of inorganic alluvial and peat deposits appears to truncate this tripartite sequence, as the early post-medieval date of the uppermost peat (above –1.16m OD) post-dates the thicker and older peat at approximately the same elevation across the rest of the site (e.g. above –1.07m OD in TP 5). The alternating nature of the deposits is suggestive of dynamic/marginal conditions, shifting between fluvial/estuarine and semi-aquatic settings, possibly infilling an incised channel.

Extraction and analysis of the pollen and NPP (NPP equals non-pollen palynomorphs, e.g. fungal spores, algae etc.) was carried out on the peats from TP 5 and Trench 4 using standard techniques (Table 1; Moore *et al.* 1991). For the accumulation of the Late Neolithic to Middle Bronze Age peat, the data is indicative of a floodplain environment dominated by alder-carr woodland with a ground flora incorporating sedges, grasses, ferns and occasional aquatics. This woodland community retreats in response to wetter conditions at the transition into the Upper Alluvium. Throughout this period, values of oak and lime, also suggest a diminished woodland cover on the dryland. Evidence of human activity is restricted to increasing values of microcharcoal, a few grains of cereal pollen and dung indicators; much of these occur at the

Sequence	Radiocarbon dates	Pollen assemblage description
TP 5	BETA-391875; charred twig wood; –0.73 to -0.78m OD; 3390±30; –26.5 δ^{13}C (‰); 1750–1620 cal BC (95.4%)	Largely characterised by high values of tree and shrub pollen including *Alnus* (30%), *Quercus*, *Tilia* & *Corylus* type (all <15%). Herbs (<10%) comprise Cyperaceae with Poaceae, Asteraceae, *Chenopodium* type, *Cereale* type, Lactuceae, Caryophyllaceae and possible *Armeria maritima / Limonium* type. Aquatics are near absent and spores are dominated by *Filicales* with *Pteridium aquilinum* and *Polypodium vulgare*. Microcharcoal increases from negligible to abundant quantities through the sequence. NPP include sporadic arboreal, dung and freshwater indicators.
	BETA-391876; twig wood; –1.02 to –1.07m OD; 4140±30; –27 δ^{13}C (‰); 2880-2580 cal BC (95.4%)	
Trench 4	BETA-391877; trackway wood; -0.92 to –0.87m OD; 290±30; –-26.6 δ^{13}C (‰); 1500-1660 cal AD (95.4%) BETA-391877; *Rumex / Polygonum* sp. seeds; –1.11 to –1.16m OD; 350±30; –26.7 δ^{13}C (‰); 1450–1640 cal AD (95.4%)	Largely characterised by high values and a diverse array of herbaceous pollen including Cyperaceae, Poaceae, Lactuceae (all *c.*30%), Asteraceae, *Cirsium* type, *Rumex* sp., *Sinapis* type, *Chenopodium* type, *Centaurea nigra* and possible *Armeria maritima / Limonium* type (all <10%). Tree and shrub taxa (both <10%) include *Quercus*, *Pinus* and *Salix*. Aquatics (5%) are dominated by *Sparganium* type. Spores are limited. Microcharcoal values are minimal throughout. NPP include frequent sedge, dung and aquatic indicators.

TABLE 1: Radiocarbon dates and pollen assemblages from TP 5 and Trench 4

transition from peat to alluvium, and therefore may be derived. By contrast, the pollen and NPPs from the early post-medieval peat are clearly suggestive of a very wet and open peat surface dominated by sedges, grasses and a variety of herbaceous and aquatic taxa (Table 1). Microcharcoal values are limited, but there are many other indicators of human activity including cereal and weed taxa (e.g. knapweed, brassica, knotgrass), minimal percentage values of arboreal taxa, and frequent dung NPP (Table 1).

The results of the environmental investigations therefore reveal the presence on site of at least two different aged peat horizons. In the southwest corner of the site in Evaluation Trench 4 the peat was dated to the early to mid-17th century, whilst in TP 5 located in the northeast corner the peat was dated to between the Neolithic and Bronze Age periods. The results enhance the model of Corcoran *et al.* (2011) indicating that peat formation did occur in this area of LZ1.1a, but that truncation and later accumulation ensued in places, probably as a consequence of active channel processes. Furthermore, the pollen data demonstrate that the sequences represented in Trench 4 and TP 5 had distinct vegetation histories.

DOCUMENTARY SOURCES AND DISCUSSION

17th to late 18th century

The deposits found enhance and provide local detail for the model suggested by Corcoran *et al.* (2011) for a site situated in what they define as Landscape zone LZ1.1a. Clearly the presence of both prehistoric and post-medieval peat sequences interspaced with silt clay alluvium demonstrate that at this location at least marginal marsh and wetland deposits both developed and more than that in part survived the notional impact of river erosion. Marshland and wetland deposits accumulated on site from at least the Neolithic to the post-medieval period, until the 19th-century urban development of the area.

The plot is located to the north west of an area which was named 'Starfield' and situated in the southeast part of the West Marsh, as depicted in a schematic way on the map of Plaistow Ward prepared by 'James' in 1742. This part of the West Marsh was adjoined by the Middle Marsh to the east and by Leywick Marsh (or Laywick in the early 19th century) to the south (Fig. 2).

The road to the north of 'Starfield' as depicted on the 1742 map is identified as Star Lane and the parallel road immediately to the northeast as Bridges Lane on a 'map of the demesne and common lands of West Ham surveyed in 1787' by John Pennington. After 1800 the name of the latter changed to Chargeable Lane as shown on the Walker map of 1818. The name 'Starfield' could originally have referred to a larger property which included the plots to the north of Star Lane, which were bounded to the north and east by ditches (common sewers) that follow a star shaped pattern. Star Lane almost certainly derived its name from this property because it crossed 'Starfield'.

The plots depicted on the 1742 map correspond in shape and position of the fields to those shown on the later Walker map of 1818. On this map the west part of the site occupies a rectangular field to the north of Star Lane labelled '28' whilst the east side is on the boundary with plot '29' (ERO D/SH 29; Walker 1818) (Fig. 8). The West Ham tithe map and apportionment of 1852 indicates that plot 28 was known as 'Wet Rant (part of)' (plot no. 630) whilst (27) was known as 'Dry Rant'. Plot 29 on the Walker map is the same as plots 611 and 629 on the Tithe map and apportionment. The 'Dry Rant' referred to in the Tithe apportionment is plot 609 which is (as noted) the same as plot 27 on the Walker map. The Wet and Dry Rants (plots 609, 610 and 630 were all property of John Low) and described as pasture. The term Rant suggests that these plots were associated with a border, shore, or boundary at some point in their history (Field 1972, 179). The prefix 'Wet' indicates that the eastern field was poorly-drained or marshier than its 'Dry' counterpart to the west (Field 1972, 251). The names are indicative of a landscape in which land had been reclaimed for grazing from the low-lying and

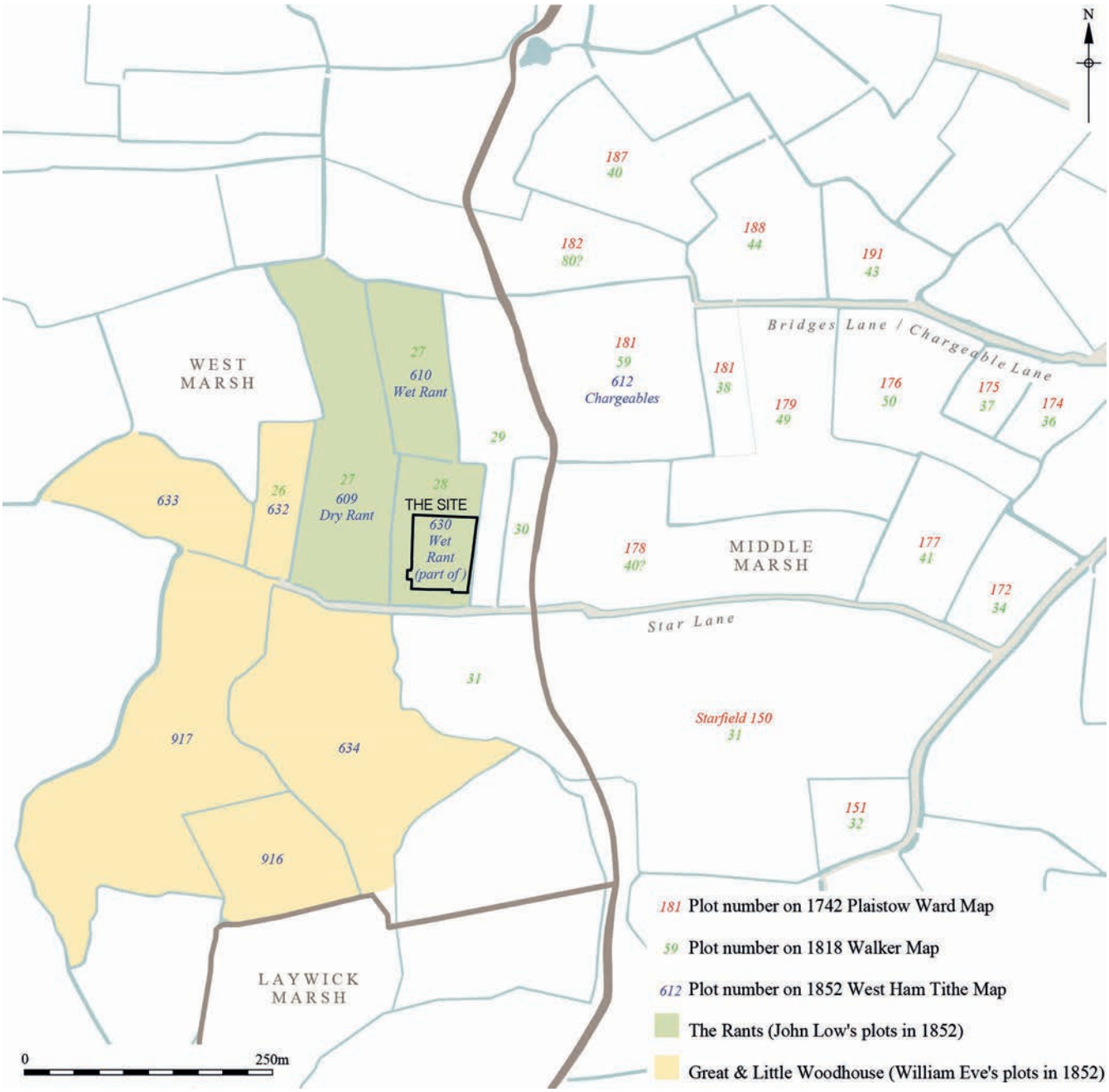

FIGURE 8: Reconstruction of historic fieldnames and locations based on 1742 Plaistow ward map, 1818 Walker map and 1852 West Ham Tithe Map

frequently inundated marshes that bounded the River Thames. The proximity of the fields to the marsh wall that separated the West and Middle Marshes, which stood only a short distance to the east, further indicates that the fields formed part of a dynamic landscape of reclamation (Fig. 7).

Chargeable Lane ran to the northeast and parallel to Star Lane. The Walker map of 1818 and the earlier Plaistow Ward map of 1742 show that the plots on these two maps had almost identical shapes and positions. The table below (Table 2) lists the corresponding plot numbers around Chargeable Lane as labelled on the 1818 and 1742 maps:

Chargeable Lane led to a field called Shillingshaw, or Chargeables, the owner of which was bound to contribute to the maintenance of Chargeable Wall at Lea Mouth. Lea Mouth was situated much further to the South West (see 1818 map) (ERO D/DPe M55 (No. 181); ERO D/SH 29) (VCH Essex 1973, 43–50). There is documentary evidence of a river wall located at a short distance to the east (the River Lea and Marsh Wall are to the west of Chargeables) in the form of a draft abstract of title of William Eve referring to a wall and foreland called Gardners Wall in West Marsh, (this is in the Great & Little Woodhouse plots). The cartographic evidence also shows the presence of a 'counterwall' as depicted on the 1742 map of Plaistow Ward. This is the boundary wall between West and Middle Marsh, which may be the same as Chargeable Wall.

The archaeological, environmental and documentary evidence combine to reveal a long history of the site as marshland with repeated flooding events. Legal documents from the late 16th and early 17th centuries detail a dispute regarding the lease of certain marsh grounds and other property in West Ham (TNA E 134/43Eliz/East14). In or about 1598 Thomas Brugge/Bridges of West Ham leased three parcels

Plaistow Ward map 1742	Walker map 1818
Plot 178	Plots 40, 30
Plot 182	Plot 80?
Plot 181	Plots 38, 59
Plot 179	Plot 49
Plot 176	Plot 50
Plot 175	Plot 37
Plot 191	Plot 43
Plot 188	Plot 44
Plot 187	Plot 40
Starfield/Plot 150	Plot 31

TABLE 2: Plot numbers around Chargeable Lane

of marsh ground called 'Great Woodhouse', 'Little Woodhouse' (containing between them approximately 30 acres and also known as 'Greate and Little Wadd house') and 'the Rawnts', together with a piece of marsh ground lying between the latter plot and Star field to a certain Thomas Ward (Fig. 8). The latter also leased a farmhouse with pasture and marshland adjoining under a separate lease from Brugge/Bridges, upon which Ward subsequently installed a tenant called Mr Bacon. The conditions of both leases included a prohibition on ploughing the land in question, exemptions from contributing towards the upkeep of the nearby marsh walls and an undertaking to return the properties in a 'tenantable' condition upon their expiration. Bridges subsequently accused Ward of attempting to wriggle out of the second lease, of allowing the farmhouse and its associated outbuildings, gardens, and orchard to fall into disrepair, misappropriating household goods and implements and of failing to pay a bond of £25. Although the outcome of the case is not known, the Exchequer Commissioners appointed to investigate the issue interviewed several witnesses whose testimony appears to have broadly corroborated Bridges' accusations against Ward.

Relatively little is known about the life of Thomas Brugge/Bridges of West Ham. According to one of the witnesses invited to give testimony to the Exchequer Commissioners, Thomas was the son of Anthony Brygg/Brugg, who was resident in London in 1586 (TNA E 115/35/86). Anthony Brugg's will has not been found, so the precise descent of the property remains uncertain. In May 1611 Thomas was granted the reversion of lands and tenements in East and West Ham and a property in Eastcheap which his brother Wymond Brugg had 'improperly' conveyed to the Crown (Green 1858, 27–37). It is not known whether the properties in question included the Woodhouses and the Rants (Fig. 8). Exchequer documents indicate that Wymond was a sometime resident of the Royal Household (TNA E 115/15/68). It is conceivable that Thomas was the same individual of that name who launched an action against the executor and heirs of the late Hugh Ley, Citizen and Skinner of London in pursuit of a debt of £300 in 1623 (TNA C2/JasI/B22/66). It is likely that he was the Tomas Brugg alias Bridges of St James Clerkenwell, who died in 1634 in possession of numerous properties in the City of London, as well as a leasehold estate in the Essex parishes of Thundersley, Rayleigh and Eastwood (TNA PROB 11/165/202). If he was the latter individual, his will makes no mention of any property in West Ham, suggesting that he may have disposed of any estates that he had owned there sometime prior to his death.

A few years after Thomas Brugge brought his action against Thomas Ward, the levels of Barking, East and West Ham were inundated by floodwaters during the winter of 1612/13 (VCH Essex 1973, 93). One 'greate and dangerous breach' which occurred in the West Marsh had yet to be closed the following May, when it was reported that land there belonging to one Thomas Mutis remained 'surrounded and nowe at this present under water' (Atkinson 1921, 13). Such was the extent of the flooding in the West Marsh that it was feared that the 'saide marsh being like to be irrevocably lost, if some speedy course be not taken therein'. On 4th May the Privy Council instructed the Commissioners of Sewers for Essex to identify the causes of the breach, make arrangements to compensate those landowners affected by the flooding and to 'give some direccions in all cases doubtfull, for the speedy redresse of soe greate a mischiefe according to law' (Atkinson 1921, 14). A few days later the Warden and Scholars of St Mary's College Oxford, which owned land in the marsh, complained that the Commissioners had demanded that the College contribute a sum towards the repair of the breaches greater than the annual rentable value of the land that it held there (Atkinson 1921, 26). In response to the petition of the college authorities, the Privy Council instructed the Commissioners to reduce the charge levied upon them.

Given that it is documented that Thomas Brugg/Bridges had been in possession of property in West Ham in 1611, it is probable that he still owned the Rants when the marsh was inundated less than two years later. There can be little doubt that extensive improvements were made to the flood defences and drainage of the West Marsh in response to the floods that occurred during the winter of 1612/13. Unfortunately, the documentary record reveals little if anything about the nature of the works in the vicinity of the Rants and Great and Little Woodhouse. In fact, the documented history of these holdings is frustratingly vague for the remainder of the 17th and 18th centuries.

However, the archaeological evidence shows that during the early to mid-17th century the construction of structure [193] was under way, if not already completed, strongly suggestive that this was erected in response to the floods of 1612/13. This north-to-south orientated flood defence structure was located a short distance to the west of the flood defences first depicted on the 1742 map of Plaistow Ward which also represent the boundary between the Middle Marsh to the east and the West Marsh to the west. Thus, it is likely that structure [193] formed part of an early flood defence system pre-dating the subsequent flood defence to the east which in turn was maintained until the 19th century. In this context it should be noted that a bank, maintained over the course of the 19th century and before is shown on the Walker map of 1818 and the OS map of 1869. This, besides having a flood defence role, represented the boundary between the West Marsh to the west and the Middle Marsh to the east (Figs. 7–8).

It is uncertain for how long after 1600 the Rants remained part of the same property as Great and Little Woodhouses, which are easier to track in the documentary record. In November 1755 William Barnett of Southwark, salesman and Benjamin Rutland of Plaistow, Gentleman, leased parcels of

marsh land in West Marsh called Woodhouse, containing a total of 36 acres, together with two separate plots of six acres apiece in Lay Field (presumably Lay Wick) (Fig. 8) and a plot of four acres in Rowe Mead to Robert Clarke of Southampton Buildings, Bloomsbury for a year for peppercorn rent (ERO D/DA T108). Whilst each of the latter three plots lay outside the West Marsh, it is possible that the Rants, or one or other of them, was included in the latter conveyance. Star Field and the nearby marsh wall are depicted on a map of the levels surveyed by James Pennington in 1787, although he did not identify the Rants by name.

The 19th century

The archaeology for the 19th century shows that the site continued to be at risk of flooding during the later post-medieval period. The excavation of the group of deep cut features backfilled with rubble suggests that by the 19th century conventional drainage was inadequate and that remedial measures were necessary.

Until the 19th century, the district was largely marshland, and accessible by boat, or a toll bridge. In 1809, an Act of Parliament was passed for the construction of the Barking Road between the East India Docks and Barking. The increasing importance of the area is confirmed by the construction of a five-span iron bridge in 1810 to carry the road traffic across the River Lea at Bow Creek.

In 1837 the owners of a freehold estate comprising marsh and farm land in Plaistow and West Ham, including Great and Little Woodhouse put the property on the market (ERO D/DU 35/41). Great and Little Woodhouse were advertised for sale in four separate lots, the property including land on both the north and south sides of Star Lane. However, it did not include either the Dry or the Wet Rant fields, which lay adjacent to its northernmost element, constituting the unnamed pasture identified as plot 632 on the tithe apportionment of 1852 (ERO D/CT 160a) (Fig. 8). The sales particulars described the lots that comprised the farm as 'rich' and 'very rich' marshland, suggesting that the vendors probably expected to sell them to graziers.

The tithe apportionment and map of 1852 indicate that Dry and Wet Rants at this time were owned and occupied by John Low (ERO D/CT 160b; 1852 Tithe map, Fig. 8). Star Field (subdivided into two unnamed units) continued to form part of the same estate as Great and Little Woodhouse. The landowner of Starfield on the 1852 Tithe is Richard Hudson and the portion north of Barking Road was leased by Benjamin Johnson and that south of Barking Road to Elizabeth Ireland, while William Eve owed plots 632,633, 634, 916 and 917). The latter was a prosperous 49-year-old farmer originally of Grays who lived at Manor Farm in North Ockendon in the 1850s and 1860s (TNA HO 107/1773/13: 19; TNA RG 9/1073/9: 12). The First Edition Ordnance Survey map discloses that both Great and Little Woodhouse farm and the Rants remained undeveloped marshland during the second half of the 1860s, the boundaries of the plots still being defined by open sewers at the time that the map was surveyed (1867 OS).

The residential development of the southern portion of West Ham commenced in the 1840s, following the purchase of the marshes between Barking Road and the Thames by the North Woolwich Land Company in 1843 (VCH Essex 1973, 43–50). The scheme was supported by George Bidder, who also promoted the Eastern Counties and Thames Junction Railway from Stratford to North Woolwich, which opened in 1846/7. Although intended primarily to carry coal, the line included an intermediate station for passenger use at Barking Road. The completion of the railway stimulated the growth of industry along the banks of Bow Creek and was followed soon after by the construction of the nearby Victoria Dock, also promoted by Bidder. Within a few years, two townships had sprung up near Barking Road Station to accommodate the workforce for the new enterprises. The first of these was Canning Town, which developed around Stephenson Street, Wharf Road, and Bidder Street, which were laid out on the land between the River Lea and the railway. The other was Plaistow New Town (also known briefly as Hallsville), which had emerged on the land between Barking Road and the Victoria Dock Road by the early 1850's. As the two settlements continued to grow during the following decade-and-a-half, they merged, and the entire district became known as Canning Town.

In 1867 William Eve put Great and Little Woodhouse on the market (ERO D/DU 35/41; 1871 Gt Woodhouse plan). The fields were divided into separate lots and plans of a proposed new road layout between Barking Road and Star Lane were drawn up and advertised to attract potential developers. In 1871 the entire property was sold, following which Malmesbury Road and a grid of mainly north-to-south aligned roads from Clarence Road in the west to Ordnance Road in the east was set out. It was only a matter of time before the Rants and the remaining land on the north side of Star Lane was sold off to builders. By the time of the revised Ordnance Survey map of 1893–4 Hermit Road formed a spine from which newly laid out streets spread eastward and westward, the latter including Tyas, Ernest and Clifford Roads.

CONCLUSIONS

The archaeological data for the Rawalpindi site uncovered evidence for a typical inner dike construction. The kind of bank which would in many cases have been originally part of an embankment which would have become superfluous to requirement as further land gains were made and the floodplain was claimed as dry land. In this instance the remains of the inner dike appear to have been part of the delimitations between various embanked marshes. It would have served a multiple function in operating as a back stop for flooding events when the main defences had failed, secondly as a base for an access route into the marsh and finally as a boundary between fields. Its construction appears to follow a pattern common in wetlands of the countries adjoining the North Sea. A simple pragmatic structure making use of easily available local construction materials comprising coppiced willow for a basal foundation mat to anchor a substantial clay body. An underlying anchoring for the foundation would have been essential from an engineering perspective, both to secure the structure as well as to support the not inconsiderable weight of the clay body. Its basal width at *c.*6.66m (see above) is indicative of a substantial structure which at its time of use would have been a significant landscape feature and which would have formed an important element of the local flood defence network. With a base breadth of circa 6.66m, at crown level it would have been around 2.5m wide, with a height of the clay bank of around 1.3 to 1.4m above ground surface (estimates based on Plasschaert 1898). These estimates have

to remain very approximate as three of the four principal parameters in calculating bank height mathematically are missing, these variables being width of base, width of crown, horizontal value of side slope, and height of dike.

The dike body would have been prone to seepage because of the permeability of the base and would therefore only have served its protective purpose for brief episodes of overbank flooding. This fact is verified by the stratigraphic confirmation of the flood defence system's failure in the 18th/19th century and indeed the excavation of sump like features during the 19th century to improve the dewatering of the surrounding pasture. The documentary record confirms the proximity of the feature to a boundary between two of the local inner marshes, namely West Marsh and Middle Marsh (see above). Clearly the bank element uncovered in these excavations was neither part of the principal flood defence nor of the actual boundary between the West and Middle marshes, but of a lesser element, involving a canalised ditch and field boundary to the west of the main dike, which drained into a less managed un-canalised natural braided channel system immediately south of Star Lane (Fig. 3).

A failure of the flood defence system is not surprising as its maintenance was divested to those least able to afford it—those leasing and renting the land (see above). Any such system for its robustness would depend on a decisive, coherent, and integrated approach to its upkeep. Something unlikely to happen in a situation with fragmented landownership and lease interests as manifest from the documentary record. There were organisations for the monitoring of the flood defences and their upkeep such as 'the Commissioners of Sewers'. This would have been the board concerned with this part of the Lea Valley from later medieval times until the 1960's (Darlington 1962). This commission was entitled to raise rates to carry out necessary works. It did not however carry out these works itself but charged the people leasing and renting the properties to do so. Its powers included the right to charge fines when their instructions were ignored. There would have been a multitude of ways in which the people ultimately responsible for river defence maintenance (the tenants) could delay and prevaricate over reasons for the work not to be carried out. Litigation over duties attached to leases springs to mind. As the old saying goes, 'a chain is as strong as its weakest link', and in this instance examples such as Thomas Ward and Tomas Brugg for the 17th century serve eloquently to illustrate the weakest links.

ABBREVIATIONS

Abbreviations used in the text and bibliography

BGS – British Geological Survey
ERO – Essex Record Office
TNA – The National Archives
VCH – Victoria County History

Historical sources

ERO D/SH 29 A plan of the levels of Walthamstow, Low-Leyton, West-Ham, Plaistow, East-Ham, Barking, Ripple, Dagenham, Havering and Bromley East Marsh, by James Walker, Surveyor to the Commissioners, 1818

ERO D/CT 160a Tithe apportionment of West Ham, 24/09/1852

ERO D/CT 160b Tithe map of West Ham, 1852

ERO D/DA T108 Indenture of Sale, 14/11/1755

ERO D/DU 35/41 Copies of agreement, 1871, plans, sale catalogues, 1837, 1867 and other papers relating to Great and Little Woodhouse in West Ham

TNA C2/JasI/B22/66 Brugge v Warner, 1623

TNA E 115/35/86 Certificate of residence showing Anthony Brugge (alias Bridges) liable for taxation in London, 1586

TNA E 115/15/68 Certificate of residence showing Wymond Brugg liable for taxation in the Royal Household, 1621

TNA E 134/43Eliz/East14 Thomas Brugge alias Bridges v. Thomas Ward: Leases of grounds called 'Great Woodhouse', 'Little Woodhouse', 'The Rawnts' &c, in or near West Ham (Essex), 1600–1

TNA MPE 1/397 West Ham Manor, map of demesne lands and commons, 1787

TNA PROB 11/165/202 Will of Thomas Brugg alias Bridges of St James Clerkenwell Middlesex, 15/02/1634

The National Archive via Ancestry.co.uk

HO 107/1773/13 1851 Census, North Ockendon, Essex

RG 9/1073/9 1861 Census, North Ockendon, Essex

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Daniel Defoe's knowledge of Essex: The evidence of *A Tour thro' the Whole Island of Great Britain*

Pat Rogers

The first section of Daniel Defoe's Tour thro' the Whole Island of Great Britain *(1724–26) describes a supposed trip around East Anglia. The opening part is devoted to Essex. Modern research aids make it easier to assess the scale of knowledge of the county that Defoe possessed. There are strong indications that he visited Essex and Suffolk around 1722, the year when he acquired leases of property around Colchester. Many first-hand observations about towns and roads confirm his long-lasting acquaintance with portions of the county, radiating out from the main route led out from London to Harwich. Close examination reveals a particularly intimate sense of social developments in relation to the spread of the London mercantile community into the country. This is most apparent in the estates acquired by a recognisable group of the new City gentry—whose members were predominantly Whig, often dissenters, many from an immigrant family, with a remarkable density in the clothing trade that Defoe knew so well and chronicled so regularly. Overall, the coverage of Essex remains one of the most valuable sections of the* Tour *to historians.*

INTRODUCTION

Three statements about Daniel Defoe's *Tour thro' the Whole Island of Great Britain* (3 vols, 1724–26) will almost certainly pass unchallenged by most of those who have studied his work.[1] First, this is by some margin the most frequently cited contemporary source for the social and economic history of the nation at the start of the eighteenth century. Second, the section of the book which shows the clearest signs of recent investigations on the spot, by way of journeys outside London, is the first, covering East Anglia. Third, this opening 'letter' also exhibits fuller personal knowledge than any portion of the text with the exception of the fifth, devoted to the capital, Defoe's native city and home for most of his life.

The aim of this article is to explore the earlier part of the initial section or 'circuit', which in the first edition consists of pages 1 to 56, out of 140 which make up Letter I. Coverage then moves on to Suffolk, Norfolk and Cambridgeshire, along with a brief return to the western side of Essex on the return journey. A passage amounting to more than twenty pages is allocated to a description of the parliamentary siege of Colchester in the summer of 1648. The diary of events reprinted appears to derive from an authentic seventeenth-century source, but its origin has never been identified. Defoe could not have written it himself, though he might well have edited it in the way that he generally did with such interpolated material. Consequently, the section is not further considered here. That leaves just short of 10,000 words on Essex. Some parts of the county are treated in greater detail than others, and as usual the author makes little attempt to hide which bits claim his fullest attention. A number of clues are found in the text which suggest the places where Defoe had the most complete first-hand knowledge.

Although there is not space to review in any detail the other counties which figure in the opening circuit, the evidence there reveals a slightly more scant, though not inconsiderable, acquaintance on the author's part. Isolated entries on towns such as Bury St Edmunds, Norwich, and Yarmouth, as well as the great commercial hub at Stourbridge Fair, show that Defoe was in command of up-to-date information. But, in general, the facts are most recent and most reliable in the case of Essex, especially concerning some localities within relatively easy reach by road or sea from the capital (Fig. 1). There may be a very simple reason for this: whenever the author went as far as Norfolk or Cambridgeshire, he would almost always pass through Essex on his progress from or to London. On the other hand, there are grounds to believe that he sometimes deliberately travelled into Essex and no further.

Of course, we are not limited in any attempt to investigate these issues to the East Anglian circuit. It makes up the first of thirteen components in the *Tour*, and occupies only about a third of Volume I. In the course of his comprehensive survey of the nation, Defoe has occasion to mention the eastern counties on scores of occasions, most regularly in explaining the way in which inland trade is spread around the country. Most famously, he outlines the communications networks of England in an appendix to Volume II, and as we shall see his account of the growing list of turnpiked roads provides important evidence for this enquiry.

It will be recalled that there was no thorough history of the county until Philip Morant published his major work (1768), which followed his volume on Colchester in 1748.[2] The books would certainly have saved Defoe some work and perhaps averted some minor errors in the *Tour*. However, he would have found the incomplete accounts by Nicholas Tindal (1732) and Nathaniel Salmon (1740) of limited use even had they been available.

Defoe's journeys

If the *Tour*'s comment at Ipswich is to be believed, the writer 'first knew the Place' more than fifty years earlier, 'about the Year 1668' (*TGB* 1: 86), with further visits which seem to date from the later seventeenth century. We can be sure that he spent time in the region while acting as a political agent for his patron Robert Harley, then Secretary of State, during the autumn of 1704 and later part of 1705; but we have other evidence that he was, for example, in continued contact with his friend John Fransham, a draper in Norwich who acted as distributor of propaganda materials (Defoe 1955, 108–18). Another informant at this date was John Morley (1667–1732), the well known butcher of Halsted turned land agent: see Appendix. Moreover, his trips to Scotland in connection with the Union of Parliaments sometimes allowed him to deviate a little from the direct route to Edinburgh. And even if he stuck to the Great North Road, this would take him through

FIGURE 1: Map of Essex showing places mentioned in the text (map prepared by Cath D'Alton)

Cambridgeshire, having skirted the western edge of Essex for many miles. We must remember that Defoe was not just a Londoner, but for the great majority of his life a North Londoner. His longest sojourn was in Stoke Newington, and from his home on the south side of Church Road it was no more than a hop and a skip, barely a quarter of a mile in fact, to reach the Great North Road, as it wound its way from Shoreditch up to Tottenham.[3] Nor was it a particularly onerous trip to get to Stratford, where the *Tour* ostensibly begins, to head out to Chelmsford, Colchester and Harwich (the precise itinerary followed at the heart of the first letter).

The description of the turnpike system, just mentioned, affords some explicit evidence of what Defoe knew and when. He refers to the main road as it crosses 'that great County of *Essex,*' noting how worn the surface has become through the continual passage of 'infinite Drives of Black Cattle, Hogs, and Sheep.' The narrative proceeds:

> These Roads were formerly deep, in time of Floods dangerous, and at other times, in Winter, scarce passable; they are now so firm, so safe, so easy to Travellers, and Carriages as well as Cattle, that no Road in *England* can yet be said to equal them; this was first done by the help of a Turnpike, set up by Act of Parliament, about the Year 1697, at a village near *Ingerstone* [Ingatestone]. Since that, another Turnpike, set up at the Corner of the *Dog Row*, near *Mile-end*; with an additional one at *Rumford*, which is called a Branch, and paying at one, passes the Person thro' both:...And we are told... that the Gentlemen of the County, design to petition the Parliament, to have the Commissioners of the last Act, whose Turnpike, as above, is at *Mile-end* and *Rumford*, empowered to place other Turnpikes, on the other most Considerable Roads, and so to Undertake, and Repair all the Roads in the whole County, I mean all the Considerable Roads. (*TGB* 2:237)

Here the reference is to the pioneering act of 7&8 Wm. III, c. 9 (1695–6), covering much of the fifty miles to Harwich, and its recent supplement from Whitechapel to Shenfield by 8 Geo. I, c. 30 (1722). The full discussion makes it clear that Defoe was familiar with the road in its unregenerate state, but also up to date on current developments. The turnpike to which he alludes was set up at the junction of Mile End Road and Dog Row, which ran northwards to Bethnal Green, approximately on the line of the modern Cambridge Heath Road (A11 and A107).[4] Defoe's underlying argument in the appendix is that other counties should follow the example set by Essex in repairing its principal highway. Two points might be noted: the original trusts of 1695/6 and 1722 were consolidated into a single body in 1726 (12 Geo. I, c. 23), a year after this volume of *TGB* appeared, extending the scope of turnpikes towards

Colchester. Second, not much was done during the remainder of the century on the smaller routes in remote parts of the county, though a link on the edge of London was formed in 1757 by the Lea Bridge trust.[5]

The main text is dotted with references to show that Defoe had a close eye on the evolution of life within the county. This starts to be visible inside the first two pages, with his comments on the increase in buildings around Stratford 'within the Compass of about 20 or 30 Years past at the most' (*TGB* 1: 52). He comments on the social character of villages such as Leytonstone and Wanstead as well as 'Towns' such as West Ham and Plaistow, noting the incursion of second homes owned by London businessmen able to afford large houses with a rental value up to £60 per annum. This sets the tone for much of the earliest sections of the *Tour*, which are marked by confident generalisations employing at least a measure of local knowledge.

Recent visits

On the opening page of his first circuit, Defoe that he 'set out, the 3d of *April*, 1722, going first Eastward' (*TGB* 1: 51). There is no external confirmation of this fact, but nothing precludes such a trip, and indeed more evidence would support its existence than we have for almost all the rest of the *Tour*. It is certain that he made up his observation of some places, as he did elsewhere, and he naturally relied on his usual sources for antiquarian lore—above all William Camden in the edition of *Britannia* by Edmund Gibson, published in June 1722.[6] In July there followed the second volume of John Macky's *Journey through England*, whose earlier instalment (1714) may have given Defoe the impetus to start on his own work.

There are other possibilities. A heated general election, called in March, was still in progress, with many results still undeclared. Indeed, it was not until 9 April that the liverymen were summoned to the Guildhall to vote for the City of London candidates, and elaborate scrutiny went on for some time even when the declaration was made on 14 April. But the outcome in leading Essex constituencies had been known by the end of March, and we might have expected Defoe to go down to observe events rather sooner.[7] In his entry for Colchester, he pays tribute to Sir Isaac Rebow, 'High Steward this Year, (1722) . . . a Gentleman of a good Family and known Character, who has generally, for above 30 Years, been one of their Representatives in Parliament' (*TGB* 1: 77). The dominant figure in the Whig interest locally, knighted by William III, Rebow had been steward since 1703, but he lost his seat in the Commons in 1722, despite petitioning against the result. In defiance of his custom, Defoe omits from a list of the borough's office-holders the successful candidates (who were Matthew Martin and Sir Thomas Webster—see below, p. 137).[8] He does name the victors at Harwich, where the declaration was made around the same time.

A different motive for his trip to East Anglia could perhaps have been to inform himself on the most sensational news story of the year in this entire region. It concerned a brutal attempt by a barrister of Bury St Edmunds named Arundel Coke to assassinate his own brother-in-law. Defoe allots most of a paragraph to this 'Act of Barbarity,' which had gained national attention (*TGB* 1: 94–5). But once more the trial and execution were over by 31 March, and it was too late for Defoe to acquire firsthand information for any planned literary treatment. Conceivably for some reason he postdated his journey, the kind of action of which he was entirely capable. Some phrases in the *Tour*'s account echo a pamphlet entitled *An Exact and Particular Narrative of a Cruel and Inhumane Murder Attempted on the Body of Edward Crispe, Esq; at St. Edmunds-Bury in Suffolk*, which was advertised in the *Daily Post* on 17 February. This was a newspaper in which Defoe had a share from 1719 and is thought to have edited.[9]

In any case, he had already conducted a fictional jaunt into East Anglia earlier in the same year. This occurs in his novel *Moll Flanders*, published on 27 January 1722. The heroine, though born in Newgate goal, is rescued by the parish authorities of Colchester at the age of about three, and put out to nurse in the town. At fourteen she is taken in by a prosperous local family, followed by her earliest love affair and first marriage. Only after the death of her husband does she leave Colchester for London, where she soon makes a second marriage with a draper who fancies himself a gentleman. Much later in the story, by which time Moll is a long-established thief, she suddenly decides to join a criminal gang hoping to find easy pickings at Stourbridge Fair, allocated several pages in the *Tour*, and its less commercial rival at Bury St Edmunds, 'a Fair for Diversion, more than for Trade' (*TGB* 1:96). These locations indicate a visit in September and October. Having little success, Moll moves on to Cambridge, Ipswich and Harwich, before returning to her old haunts in Colchester, where she stays three or four days. A good deal of the episode is set on the highways, of whose routes Moll (unlike her creator) seems to have little more than a hazy knowledge. Again, it seems possible that Defoe had refreshed his own acquaintance with the area in the early 1720s.

We have one, more definite, piece of evidence to provide a strong hint that the writer had good reason to visit Colchester at the relevant juncture. This was because of a major land investment he made at Mile End, now a suburb known as Myland, then a village two miles north of the town.[10] His biographer, Paula Backscheider, explains the reasons:

> On 6 August 1722 Defoe agreed to pay £1,000 to the Corporation of the Borough of Colchester. For this impressive sum of money, he got a 99-year lease on some hundreds of acres of land the timber rights to them. This land . . . had been rented to as many as sixteen people . . . .Defoe was to pay the Colchester Corporation rent of £180 year, and he intended to use part of the land himself . . . At the same time, Defoe leased Broomfield in nearby Earls Colne parish.

He had his daughter Hannah sign the documents as the ultimate beneficiary of the lease. Next year Defoe took out a mortgage of £200 on the property at Mile End, and began to plan a brick and tile works. Soon afterwards he tried to persuade a mercer from Nuneaton named John Ward to join with him in exploiting the resources of the estate, and he may even have intended to live on the farmland himself. Ultimately this came to nothing, like many of his trading projects, and Ward went back where he had come from. This led to his own bankruptcy and a Chancery suit levelled against him by Defoe. Things continued to get worse, as the rent was not paid on time, and before his death in 1731 Defoe had turned over the lease to his son Daniel. The entire sorry story is told by Backscheider, based in part on documents preserved in the Essex Record Office (ERO), including Colchester's Chamberlain's accounts.[11]

The itinerary

The start of the circuit occurs where the boundary lies, 'Passing *Bow-Bridge*, where the County begins' (*TGB* 1: 51). After describing the increase in inhabitants among the local villages since the Revolution of 1688, Defoe turns briefly to antiquities, a topic he says has been so fully treated by Camden and his editor Edmund Gibson that he will touch on the subject 'very lightly'. The immediate reference concerns the stone bridge, originally built at the expense of the Empress Matilda early in the twelfth century, and Defoe abridges the account in his source (Camden 1722, 406) to omit most antiquarian details. However, he describes the discovery of Roman remains at Ruckholts near Ilford, making one of his comparatively rare slips in altering Gibson's allusion to the owner Sir William Hickes to 'Thomas'—the third Baronet, named Henry, had sold the estate in 1720 to Robert Knight, one of the main villains in the South Sea imbroglio that year.[12] The narrator adds that some of the coins unearthed had been deposited with 'the Revd. Mr. *Strype*, Vicar of the Parish of *Low-Layton*' (*i.e.* Low Leyton).[13] This is the antiquarian John Strype (1643–1737), whose edition of John Stow's *Survey of London* (1720) was glancingly disparaged by Defoe (*TGB* 2: 65), but which he may have occasionally raided in his section on the capital. A considerable find was made in 1718 of Roman remains near what is now Grange Park Road, running towards a housing development named John Strype Court.

Following this the text mentions 'the Great Road' that is the route of the Iter V, which led through Chelmsford and Colchester, branching off to Caistor in Norfolk. This actually crossed the River Lea at Old Ford, half a mile north of Bow Bridge. Unlike more high-minded guidebooks, the *Tour* has room for the Green Man, an inn marking the edge of Waltham Forest known from the mid seventeenth century, whose memory is preserved in the large roundabout where the A11 and A12 meet. There is also mention of the Temple Mills brass works, near the site of the London Stadium, which has given its name to an area still predominantly industrial in character. This was the kind of entity that caused travellers such as John Macky to avert their eyes, as they hopped effortlessly from one showplace to another—not so Defoe.

However, the sight to which he pays special attention is predictably Wanstead House, built from 1715 and still uncompleted indoors in 1722, though the exterior was finished (Plate 1). The mansion excited Defoe on a number of grounds. It was very recent, and involved the replacement of an ancient edifice. It belonged to a mercantile family, whose fortunes had been largely founded by the buccaneering East India magnate Sir Josiah Child. Its current owner was his second son Richard Child, third Baronet (1680–1730), a former Tory who went over to the government side as member for Essex after the Hanoverian accession. He was granted an Irish peerage in 1718, later upgraded to an earldom. The house was designed by Colen Campbell, not only an irreproachable Palladian but a loyal Whig who had become the favourite architect of the ruling caste along with their main sponsor, Lord Burlington (see Stutchbury 1967, 27–71). He was currently working at

PLATE 1: Wanstead House, Essex, the seat of Lord Castlemaine, designed by Colen Campbell, probably in the 1720s (Reproduced by courtesy of the Essex Record Office)

Houghton for the prime minister Robert Walpole, whose house Defoe lauds in the appendix to this letter (*TGB* 1: 135–6). All these factors made it natural for him to revert elsewhere in this volume to the achievements of this 'eminent Citizen', Sir Josiah, and to the 'magnificent Palace' of his successor (*TGB* 1: 60, 130).[14]

The narrative then passes to a task announced on the first page: 'I went down down by the Coast of the *Thames* thro' the Marshes or Hundreds, on the South-side of the County of *Essex*, till I came to *Malden*, *Colchester*, and *Harwich*' (*TGB* 1;51). This excerpt shows qualities evident throughout the work, many of them based on Defoe's extensive knowledge of inland and coastal trade gained as a result of his own experiences as a businessman. The coverage is especially full on matters relating to fisheries, especially oysters.[15] There is thorough treatment of topics such as the attempts to stop the Dagenham Breach (Plate 2), a task which John Perry completed in 1723, but in most cases nothing which would not be possible to glean from industrious research—here by consulting Perry's own *Account* (1721).[16] Two passages stand out. One that has often been cited concerns the prevalence of ague, that is malaria, in the marshes along the estuary. The text of *Britannia* had simply stated that 'the unwholsome vapours…do very much impair the health of the adjacent Inhabitants' (Camden 1722, 407–8). The *Tour* goes into much more detail, blaming the noxious exhalations which were then believed to cause the disease for a dearth of potential wives, since they were generally recruited from the hillier country inland, and then fell victim more easily to the ague. It is possible that that there was a shortage of younger women at one time because of the incidence of malaria nearer the river, where male occupations tended to be more numerous..

A more significant instance is provided by Defoe's entry for Tilbury Fort. His highly specific account of the fortifications contains a potted history and careful measurements of the bastions and palisades. He also describes a plan to make the fort even stronger with a water bastion, designed by Sir Martin Beckman. Excavations have shown that construction of the foundations for this bastion did begin but was abandoned sometime between 1676 and 1681 (Moore 2000, 17). The foundations survive and can be seen at low tide. Beckman (1635–1702) was in charge of the site at a time when Defoe was active in the area. Swedish by origin, he had served Charles I in the Civil War and then the king's son, constructing defences at Sheerness and elsewhere. In 1685 he succeeded Sir Bernard de Gomme, the main contriver of Tilbury, as principal engineer of the ordnance. How could Defoe have known of this unrealised scheme? Most likely because he was on the spot. As a young man in 1689 he had taken out a mortgage for the considerable sum of £855 on a long lease to acquire five tracts of marshland at Tilbury running to thirty acres, and he added a further portion of thirty-eight acres for no less than

PLATE 2: Dagenham Breach House, published by J. Sewell (1790) [NB original caption reads 'Beach']
(Reproduced by courtesy of the Essex Record Office)

£1,000 in the next year. He then started a factory there to make bricks and tiles. 'This Essex factory appears to be Defoe's major business effort, and he came to clear about £600 a year from it' (Backscheider 1989, 64)—this out of dozens of such ventures. His legal troubles a decade later meant that he was no longer eligible to bid for government contracts, and the firm collapsed. Nor was he able to implement Plan B, which had been to sell off land to the government to build a naval arsenal adjoining the fort. Alas for his schemes, the decision was taken to build at Woolwich instead. Bastian has shown that Defoe very possibly lived in the ferry house at Tilbury, as he passed many comments in print on what as going on in this vicinity (Bastian 1981, 192–4). His brother-in-law, the shipbuilder Robert Davis, seemingly used a wharf on the property that gave access to the Thames. It is wholly inconceivable that Defoe did not keep an ear open for everything relating to his neighbours at the fort.[17]

At this juncture the narrative passes rapidly over Maldon, alluding dismissively to stories about Boudicca relayed by Camden that may command more respect today. We then rejoin the course of 'the Great Road,' following roughly the line of the modern A12. The most impressive segment for present purposes deals with the area around Witham, to which I shall return in the last section of this paper. This precedes the entry for Colchester (Plate 3), long in itself even excluding the account of the siege mentioned earlier. It includes miscellaneous information on 'Publick Edifices' such as the ('Dutch') Bay Hall, the castle, and the guildhall; on office holders such as the recorder, named as Lord Cowper (here Defoe failed to update his sources, as the former lord chancellor had died some months prior to publication, on 10 October 1723);[18] and on the population of the town and surrounding villages, overestimated at 40,000—the borough itself had about 9,000 inhabitants, a figure increasing slowly if at all—it may even have been fewer in 1740 than in 1670 (Chalklin 1974, 20). The reason for stagnation rather than growth lay in widespread problems in the woollen industry that hit the region particularly hard. Many of the facts listed could have been derived from standard manuals such as *The Present State of Great Britain and Ireland*, which appeared at regular intervals in rival versions by Guy Miège and John Chamberlayne. But it looks as if Defoe had come into contact with members of the ruling Whig elite, who held major administrative, legal and political offices in the borough (see French 2007, 243). This would include individuals such as Robert Price, Edmund Raynham, and Jeremiah Daniell, mentioned elsewhere in this paper, and perhaps the kingpin Sir Isaac Rebow himself. After all, most of these men represented precisely the middling sort of people whom Defoe had busily endorsed all his writing life.[19]

For historians, the most interesting section of the entry concerns the local trades, especially Colchester's speciality, baymaking. It concludes:

> The Town may be said chiefly to subsist by the Trade of making Bays, which is known over most of the trading Parts of *Europe*, by the name of *Colchester* Bays, tho' indeed all the Towns round carry on the same Trade, namely, *Kelvedon, Wittham*, *Coggshall*, *Braintree*, *Bocking*, &c. and the whole County, large as it is, may be said to be employ'd, and in part maintain'd, by the spinning of Wool for the Bay Trade of *Colchester*, and its adjacent Towns. (*TGB* 1: 62)

An exaggeration, but a pardonable one perhaps, since this is only part of a larger commentary on the woollen industry that appears throughout the *Tour* (see for instance *TGB* 3: 70). Defoe had sufficient knowledge of this branch of the trade to discuss it in works such as *A General History of Discoveries and Improvements, in Useful Arts* (1725–6) and *A Brief Deduction of the Original, Progress, and*

PLATE 3: South-East Prospect of Colchester, by Samuel and Nathaniel Buck (1741)
(Reproduced by courtesy of the Essex Record Office)

Immense Greatness of the British Woollen Manufacture (1727).[20] In fact he had referred several times to the trade in the *Review*, and had written in these terms as early as 12 April 1705: '"Twould be in vain for any County or Town in England, to Erect the Trade of Bays, tho' they made them lower than Colchester, Bocking, &c. They are known by their Faces, the Foreign Merchants buy them by the Seal and Marks of the Towns, and know they are not deceiv'd."[21] It was in the same year that Defoe visited the place and set up his distribution agent, 'Mr Wheely', probably John Wheely, keeper of the Colchester House of Correction in 1707.[22]

He continued to keep a close eye on Braintree, as evidenced by a passage in his *Plan of the English Commerce* (Defoe 1728, 267–8). This describes events after the plague scare in France and peace with Spain (meaning the outbreak in Marseilles threatening England in 1720–21, and the Treaty of Madrid signed on 13 July 1721, New Style).[23] The price of goods went up in England, and 'the poor Farmers could get no Dary-Maids', because girls could earn nine shillings a week spinning instead of just one shilling on the farm, 'so they all run away to *Bocking*, to *Sudbury,* to *Braintree*, and to *Colchester*, and other Manufacturing Towns of *Essex* and *Suffolk*'.

From here the narrator decides to take 'another step down to the Coast'. He observes a new sea mark put up by Trinity House on the Naze near Walton. This is the surviving octagonal tower which now houses a museum of local history. Defoe calls it 'a round Brick Tower, near 80 Foot high' (modern estimates range from 81 to 86 ft (24.7 to 26m)). He continues, 'The Sea gains so much upon the Land here, by the continual Winds at S.W. that within the Memory of some of the Inhabitants there, they have lost above 30 Acres of Land in one Place' (*TGB* 1: 79). At that date the tower stood 457m from the cliff; today the distance is no more than 46m. It was indeed a new structure when the *Tour* was written, having been erected in 1720 and 1721. A recent defence of granite has been built nearby to slow coastal erosion.

The next port of call is Harwich (Plate 4), where the text shows signs of greater familiarity than is the case for any place in the county except Colchester. Defoe's opening formula might suggest perfunctory treatment: '*Harwich* is a Town so well known, and so perfectly describ'd by many Writers, I need say little of it' (*TGB* 1: 80). In fact, most of his entry does not derive from identifiable sources, although odd passages including a long and fairly sceptical paragraph on the petrified

PLATE 4: A Prospect of the Towne and Harbour of Harwich, published by Thomas Taylor (1713)
(Reproduced by courtesy of the Essex Record Office)

clay or wood with which the streets were paved recall one or two phrases in *Britannia* (Camden 1722, 423–4) and a short derivative version in *A New General Atlas* (Senex 1721, 212). For that matter, the details in the *Tour* are quoted and commented on by a local historian (Dale 1730, 100–01).[24] Elsewhere, we have an account of the harbour's defences at Landguard Fort in Suffolk as they had been improved over the years since the Dutch Wars, which bears all the hallmarks of first-hand observation. The main fort as described in the *Tour* dates from 1717–18, and the physical description of the site hints that Defoe had witnessed its setting on the spot.[25]

This quality of the coverage becomes clearer still in the next paragraph:

> The Harbour is of a vast Extent; for, as two Rivers empty themselves here, viz. *Stour* from *Mainingtree*, and the *Orwel* from *Ipswich*; the Channels of both are large and deep, and safe for all Weathers; so where they joyn they make a large Bay or Road, able to receive the biggest Ships, and the greatest Number that ever the World saw together; I mean, Ships of War. In the old *Dutch* War, great Use has been made of this Harbour; and I have known that there has been 100 Sail of Men of War and their Attendants, and between three and four hundred Sail of Collier Ships, all in this Harbour at a time, and yet none of them crowding, or riding in Danger of one another. (*TGB* 1: 80)

In substance and style, this bears no resemblance to the way in which routine topographic or antiquarian manuals of that era discuss the town.

Equally, the next paragraph on the decline of the packet boat service to the Continent in recent years, with consequences for the stage coach traffic to and from London, palpably owes nothing to standard sources. (Moll Flanders had pretended to have arrived in Harwich on a packet boat from Holland, and commented on the London wherries that plied the route to the capital from the harbour).[26] Unlike other writers, the *Tour* mentions the lighthouse, one of two built by Sir William Batten (1600–67), surveyor of the navy and master of Trinity House, and part-owned by Sir Isaac Rebow. These were erected in 1665, but both were replaced by new stuctures in 1818. Originally they had been approved by Trinity House even though they were a private venture by Batten, a long-time adversary of Samuel Pepys (himself a later MP for Harwich). Intriguingly, Defoe claimed to have seen hundreds of men of war and other vessels in the harbour at Harwich during the Dutch wars, more than half a century earlier (*TGB*, 1: 80), and indeed actually to have been captured by pirates off the coast here: 'Nay, I can assure you, that I had my self an Adventure in a Ship bound to Rotterdam, that, was taken by an *Algerine* Man of War, in the Mouth of the River *Thames*, and in Sight of *Harwich*' (*The Commentator*, 17 June 1720).

Here the narrator retraces his steps to resume the description of the Great Road, with a somewhat lame explanation that he will treat the central portion of the county on his return journey. Consequently, at this stage he needs only to 'give you a few Hints of some Towns which were near me on my Rout this way' (*TGB* 1: 82). The 'well known' places in question include Romford, Brentwood, Ingatestone, 'and even *Chelmsford* itself', worthy of little attention though they were large settlements frequented by a steady stream of travellers and wagons. Defoe had unquestionably passed this way often, and he had stopped at Chelmsford on electoral business for Harley in 1705. But its status as 'the County-Town, where the County Jayl is kept, and where the Assizes are often held' did not qualify it for the kind of attention which places of trade or ports arrogate within the text. Another reason may be that Chelmsford, though it was the site of the county election, had no representation as a borough in its own right, which made for less politicking and palm-greasing.

The most effusive passage here concerns Gidea Hall, 'a noble stately Fabrick or Mansion-House, built upon the Spot by Sir *John Eyles,* a wealthy Merchant of *London*, and chosen Sub-Governor of the South-Sea Company, immediately after the Ruin of the former Sub-Governor and Directors, whose Overthrow makes the History of these Times famous'. Within this one sentence Defoe kills several birds. He is able to pay tribute to a mercantile grandee in the City, as Eyles (*c.*1683–1745) was a director of the Bank and the East India Company who had recently acted as sheriff and would be lord mayor in 1726. A year later, he transferred his parliamentary seat from Chippenham to the City of London, and as a dependable Whig remained loyal to the administration up to the time of the Excise Crisis in 1733. Finally, the passage returns to an *idée fixe* in the *Tour*, that is the disastrous effects of the Bubble in 1720, an outcome Defoe could legitimately claim to have foreseen in pamphlets and journalism about the South Sea venture over the preceding years.[27] In his second letter, when he reaches Carshalton, he comes back to this theme: 'The other House is that of Sir *John Fellows*, late Sub-Governor of the *South-Sea* Company, who having the Misfortune to fall in the General Calamity of the late Directors, lost all his unhappy Wealth, which he had gain'd in the Company, and a good and honestly gotten Estate of his own into the Bargain' (*TGB* 1: 193). Eyles had demolished the Tudor house on the site around 1720, and over the next few years erected a three-storey mansion in its place, an exchange Defoe probably applauded.[28] This building survived until 1930.

A brief allusion is made to Leez Priory (another Tudor house which had formerly been the home of the whiggish family of the Dukes of Manchester, courtiers and diplomats), and to their move to the 'much finer Residence' at Kimbolton. This occurred after the death of the first Duke in January 1722, but prior to the marriage of his son to a granddaughter of the Duke and Duchess of Marlborough in April 1723—Defoe refers to both events. Following this, the narrator gives a brief mention to four market towns, which 'fill up the rest of this Part of the Country; *Dunmow*, *Braintre*, *Thaxted*, and *Coggshall;* all noted for the Manufacture of *Bays*, as above, and for very little else, except I shall make the Ladies laugh, at the famous old Story of the Flitch of Bacon at *Dunmow*' (*TGB* 1: 83). As often, Defoe quotes the local folklore, but hedges his bet by acknowledging that he was not aware of any award. He embellishes Gibson's note on this point, and then extends the coverage of Hatfield Forest found in various parts of his source (Camden 1722, 412–14). In particular, he reprints a royal charter granted to Ralph Peverel, a leading landowner in East Anglia at the time of Domesday. Defoe subscribes to a dubious genealogy which links the Peverel line to William the Conqueror. Nevertheless, his translation of the Middle English verse into modern doggerel diction is amusing enough.

Once more the narrator turns on his heel and takes up the course of his journey on the River Orwell, at the start of his progress through Suffolk. We must move on almost eighty

pages in the first edition, before the journey back to London re-enters Essex: 'From *Cambridge*, my Design obliging me, and the direct Road, in part concurring, I came back thro' the West part of the County of *Essex*, and at *Saffron Walden* I saw the ruins of the once largest and most magnificent pile in all this part of *England*, (*viz*.) *Audley End*' (*TGB* 1: 129). However, there is no detailed account of the mansion, then undergoing restoration in which John Vanbrugh is thought to have played a part (Downes 1987, 331–3). Nor does the text do more than list ten towns in the Stour valley close to the border of Essex and Suffolk. The explanation may be found in the following paragraph: 'As we came on this Side we saw at a distance *Braintree* and *Bocking*, two Towns, large, rich and populous, and made so Originally by the Bay Trade, of which I have spoken at large at *Colchester*, and which flourishes still among them.' The wording suggests that if Defoe did indeed make trip into East Anglia in the early 1720s, he would most likely have used the route from Bury St Edmunds through Sudbury, Halstead and Braintree to Chelmsford, just bypassing Coggeshall, instead of returning to the Great Road by another way described in the roadbooks, which led from Cambridge through Saffron Walden, Thaxted, and Dunmow to Chelmsford.[29]

A further fact is worth noting. At Felsted the text correctly identifies the former master of the school, Simon Lydiatt (*c.*1659–1712), and his successor Hugh Hutchin (1678–1725), who held the post until his death (Sargeaunt 1889, 19–25). Again, this was information not easily gleaned from most standard sources. The village lay off the main road, and neither Camden nor derivative works such as *A New General Atlas* (1721) or *A New Description of England and Wales* (1724), noteworthy for the maps respectively of John Senex and Herman Moll, pay it any heed. It is certain that whenever Defoe's knowledge or memory was defective, he turned to maps, such as those for each county by Robert Morden used in Gibson's edition of *Britannia*. But in no other shire did he have less need for this help than in Essex.

There is now only a short way to go in order to complete the first circuit. Once more we pass rapidly through Chelmsford and Ingatestone, with a token reference to towns stretched along the old bounds of Epping Forest. They include the Rodings, 'famous for good Land, good Malt, and dirty Roads', as well as Chipping Ongar, Hatfield Broad Oak, and Epping itself. Defoe seems reenergized when he reaches the lower part of the forest, 'where it is spangled with fine Villages . . . fill'd with fine Seats, most of them built by the citizens of *London*' (*TGB* 1: 156). However, their lustre has been 'entirely swallow'd up in the magnificent Palace of the Lord *Castlemain*.' This gives the writer an opportunity to dilate upon the splendours of the house for almost two full pages, and as we saw earlier (p. 130) this allows him to offer a paean to a Whig mercantile hero. It ends with a threnody, lamenting that men such as Castlemaine were 'wounded by that Arrow shot in the Dark,' that is the South Sea fiasco promoted by villainous stock-jobbers. The moral is spelt out in two paragraphs, utterly characteristic of Defoe, where he first deplores the way in which other families in the county have lost their fine parks and new palaces to 'Forfeiture and Alienations,' and then concludes: 'But I desire to throw a Veil over these Things, as they come in my way; 'tis enough that we write upon them as was written upon King *Harold*'s Tomb at *Waltham-Abbey*, Infelix, and let all the rest sleep among Things that are the fittest to be forgotten' (*TGB* 1: 131). Uniquely among guidebooks of the period, the *Tour* is pervaded by a set of large overarching themes that go beyond topographic description. The effect of the Bubble on the English nation is one of these, and the story begins in Essex.

Essex and the City merchants

One section of the circuit contains particularly revelatory material.[30] This is the passage describing Witham and its environs, which needs to be glossed in detail. It starts in this way:

> Being obliged to come thus far into the Uplands . . ., I made it my Road to pass thro' *Witham*, a pleasant well situated Market-Town, in which, and in its Neighbourhood, there are as many Gentlemen of good Fortunes, and Families, as I believe can be met with in so narrow a Compass in any of the three Counties, of which I make this Circuit.
>
> In the town of Witham dwells the Lord *Pasely*, eldest Son of the Earl of *Abercorne* of *Ireland*, (a branch of the noble family of *Hamilton*, in *Scotland*:) His Lordship has a small, but a neat well built new House, and is finishing his Gardens in such a manner, as few in that Part of *England* will exceed them. (*TGB* 1: 59)

The house in question, on the estate of the Grove, was indeed exceedingly new. Its previous owner was Robert Barwell III (*c.*1687–1726), a member of a local family of clothiers turned gentry, who married the daughter of a wealthy London draper in 1715, and set about erecting a new mansion.[31] However, he had been obliged to sell it after he underwent bankruptcy in 1717 (*London Gazette*, 30 Nov.) and the house was left unfinished. Barwell had to obtain a private Act of Parliament (5 Geo. I, c. 25) to allow him to do this. Though not mentioned by name, this must be the 'handsome new built brick House near finished, three story high,' which was advertised in the *Daily Courant* on 24 April 1719. James Hamilton, Lord Paisley (1686–1744), who succeeded as 6th Earl of Abercorn in 1734, probably began work on the house and gardens in 1720. His family lived there until 1785. Meanwhile Robert Bardwell III removed to London, where he was living in Mark Lane at the time of his death in 1726. His son Robert IV (*c.*1717–53) became a linen draper in London, selling some remaining property in Witham and eventually moving to Hackney. It is not a surprise that Defoe should have known something of this family and its doings, since his background was in the London hosiery trade, and the clothing industry was at the centre of several of his books.

The next paragraph concerns a man whose own background was not totally dissimilar, and who shared some attributes with Defoe:

> Nearer *Chelmsford*, hard by *Boreham*, lives the Lord Viscount *Barrington*, who tho' not born to the Title, or Estate, or Name which he now possesses, had the Honour to be twice made heir to the Estates of Gentlemen, not at all related to him, at least One of them, as is very much to his Honour mention'd in his Patent of Creation. His name was *Shute*, his Uncle a Linnen Draper in *London*, and serv'd Sheriff of the said City, in very troublesome Times. He chang'd the name of *Shute*, for that of *Barrington*, by an Act of Parliament, obtain'd for that Purpose, and had the

> Dignity of a Baron of the Kingdom of *Ireland* conferr'd on him by the Favour of King *GEORGE.* His Lordship is a Dissenter, and seems to love Retirement. He was a Member of Parliament for the Town of *Berwick* upon *Tweed*. (*TGB* 1: 60)

Every material fact here is accurate; but the phrasing is also remarkably discreet. John Shute (1678–1734) was a Presbyterian who like Defoe had studied in a dissenting academy and had campaigned for the Union with Scotland. His good fortune was to find himself bequeathed estates, first in Berkshire from an admirer, and then in Essex from a cousin by marriage, a member of the well-known county family the Barringtons of Hatfield Broad Oak, whose name he took.[32] His Irish peerage dates from 1720. Elected to parliament in 1715, he retained his seat until 1723, when he was expelled from the Commons for his share in the fraudulent Harburg lottery scheme, never regaining influence afterwards. Defoe clearly knew that he was no longer an MP. Could there be a grim joke in the phrase about loving retirement? There was widespread suspicion of Barrington as a legacy hunter and corrupt politician. Yet he represented exactly the kind of self-made man and stalwart defender of the dissenting community whom Defoe regularly lauded, and the entry was left in even though he had lost the support of his fellow Whig MPs, who were anxious to show their propriety after the South Sea scandal. Nor would Defoe wish to suggest that the king had been guilty of misjudgment in elevating Barrington to the peerage. The house to which the text refers lay at Tofts, near Little Baddow.

Two paragraphs follow that are highly significant in the context of the letter as a whole:

> On the other side of *Witham*, at *Fauburn*, an antient mansion house, built by the *Romans*, lives Mr. *Bullock*, whose Father married the Daughter of that eminent Citizen, Sir *Josiah Child* of *Wansted*, by whom she had three Sons, the eldest enjoys the Estate, which is considerable.
>
> It is observable, that in this part of the Country, there are several very considerable Estates purchas'd, and now enjoy'd by Citizens of *London*, Merchants and Tradesmen, as Mr. *Western* an Iron Merchant, near *Kelvedon*, Mr. *Cresnor*, a Wholesale Grocer, who was, a little before he died, nam'd for Sheriff at *Earls Coln*, Mr. *Olemus (sic)*, a merchant at *Braintree*, Mr. *Westcomb*, near *Malden*, Sir *Thomas Webster* at *Copthall*, near *Waltham*, and several others.

A remarkable amount of pertinent information is processed here. The first reference concerns Faulkbourne Hall, two miles north west of Witham. Its former owner had been Edward Bullock (1663–1705), MP for Essex and Colchester, originally a Tory who gravitated to the Whigs, and high sheriff of the county in 1703. In 1693 he took as his second wife Mary Child. Their eldest son John would die without issue, and the second son Josiah (1697–1752) succeeded as lord of the manor, just as his ancestors had been since the sixteenth century. He married the daughter of Sir Thomas Cooke, governor of the East India Company and a former MP for Colchester. His uncle John Bullock, JP, DL, had represented Maldon in the Commons. These family connections outline an obvious nexus of political interest within the county, but it is noteworthy that Josiah as a second son went into trade. As his memorial at Faulkbourne states, 'Being bred a HAMBRO' merchant He continued in that Business until the time of his Death' (Spurrell 1878, 232–50). Josiah was also a director of the Royal Exchange insurance company. He ran his business from Mincing Lane in the heart of the City, a few doors down from Clothworkers Hall.

Next in the list comes William Western (*c*.1693–1729) of Rivenhall, also north of Witham. He came from a line of Wealden ironmasters who had made profitable contracts to supply the ordnance. His father Samuel (1652–99) was a barrister and Whig MP, who predeceased his own father. William inherited the Rivenhall estate along with valuable property in Billingsgate in 1707 when his grandfather died, leaving a fortune of £200,000. He studied at Cambridge and became a Fellow of the Royal Society. In 1715 he married Anne, daughter of Sir James Bateman (*c*.1660–1718), at one time governor of the Bank of England and later sub-governor of the South Sea Company, a very big wheel in the City who had also been an MP and lord mayor of London. In 1720 Bateman's son had married the daughter of Lord Sunderland, effectively the prime minister, who was also son-in-law of the Duke and Duchess of Marlborough. William would die of smallpox in 1729, to be succeeded at Rivenhall by his cousin, the London merchant and MP Thomas Western. His widow survived him by almost half a century. Again, we see the intersections of City commerce, high Whig politics, and the acquisition of large estates in mid-Essex.

The following reference is to George Cressener of Earl's Colne, who died on 4 November 1722 (Mackinnon 2016, 180). He was buried locally, in linen rather than wool. His will was proved on 29 November.[33] Since the work of Alan Macfarlane and his associates (1980), the history of Earls Colne has become much more widely known. The Cresseners' family home at the village, Chandlers, survives in a restored state. George was a citizen and grocer of London, based in Watling Street, and a member of the common council. In 1721 he had been an unsuccessful pro-government candidate for sheriff. He served as a governor of St Thomas's Hospital. In 1704 Cressener bought the manor of Great Tey, and he was also lord of the manor of Mount Bures, where his family had held property since late medieval times. In 1717 his daughter Elizabeth brought with her a dowry of £1,000 when she married Samuel Tuffnell (1682–1715) of Great Waltham, from a London brewing family, who represented both Colchester and Maldon as a Whig and an adherent in parliament of Walpole. The Cressener fortunes declined within a few years, when George's son and namesake defaulted for the sum of £50,000 and absconded to Venice (McMaster 1995, 5–11). Elsewhere Defoe mentions 'a wholesale grocer of the name of…Cresner' who belonged to one of the 'ancient families of the gentry' (Defoe 1890, 265).

The second paragraph turns out to open up the most revealing information of all. We get a clue to the identifications here later in the letter, on the return leg of the circuit: 'The Manour of *Braintree* I fund descended by Purchase, to the Name of *Olmeus*, the Son of a *London* Merchant of the same Name; making good what I have observ'd before, of the great number of such who have purchas'd Estates in this County' (*TGB* 1:129). The founder of the line was Herman Olmius (d.1718), a merchant who came to London from Luxembourg in the reign of Charles II and was naturalized in 1675. He set up business trading in German goods in Bishopsgate Street and acquired a large number of properties not far away in Austin Friars, where he bought a substantial house in 1705.

As a Huguenot he attended the French Protestant church in Threadneedle Street. Just after the turn of the century Herman accumulated a number of estates in Essex. His home was at Warrens House, Little Leighs. His eldest son was John Olmius (1678–1731), director from 1723 and briefly deputy governor of the Bank of England, as well as high sheriff of the county in 1707.[34] His grandson, also John (1711–62), became an MP for Colchester, where he sometimes clashed with Isaac Rebow's grandson, and a supporter of Walpole. In 1762 he was ennobled as Lord Waltham, but survived only three more months. He had bought New Hall, Boreham, mentioned in an aside by Defoe (*TGB* 1: 85). The last two individuals are frequently confused in genealogical sources.

We can glean some idea of the extent of the land bought up by Herman Olmius simply by flipping through the pages of Morant's *Essex*. This will show that in the course of a few years he obtained estates in Broomfield, Cressing, Felsted, Great and Little Leighs, Great Waltham, Pattiswick and White Notley. All these places are located around a rhomboid defined by Chelmsford, Braintree, Colchester and Witham. The proximity of the residences near Witham listed by Defoe is self-evident. It is worth adding that in 1722 he himself leased a property known as Pound Farm in Earls Colne (Cressener's home), situated on the Coggleshall road, at the edge of this rhomboid. In his explorations for land at that date he must have come to know the area between Chelmsford and Colchester intimately, which helps to account for the thoroughness with which he treats the vicinity of Witham, situated on a direct line for his trips to and from London.

The following name refers to Nicholas Wescombe (d. 1744), a barrister of the Inner Temple. His father, also Nicholas, was a London merchant who bought the manor of Langford, near Maldon, in 1681, for £6,700.[35] One of the sellers was Sir Robert Clayton, the great financier mentioned in several of Defoe's books, including the *Tour* (*TGB* 1: 191, 203), who is even given a role in *The Fortunate Mistress* to help the heroine Roxana get a mortgage. The other was Sir Eliab Harvey of Chigwell, a Turkey merchant and MP for Maldon in the 1690s, who had been a leading supporter of Shaftesbury at the time of the Exclusion Crisis. Wescombe senior built a house to the north east of Chigwell village called the Grove, which was replaced in 1782 by a white brick building designed by the prominent local architect John Johnson, demolished in 1952 (see Kemble 2010, 5).

Last comes Sir Thomas Webster (1676–1751), high sheriff of Essex in 1703–04. MP for Colchester with intervals between 1705 and 1727, serving alongside his ally Sir Isaac Rebow, and a director of the East India Company. Like most of the members Defoe mentions, he served as a reliable Whig in the Commons. As an alderman of Colchester he was able to exercise considerable influence in the borough's affairs. He was a contractor to supply clothing to the army and navy along with his father, who was prosperous enough to help him buy Copped Hall between Epping and Waltham Abbey in 1701. The house suffered severe damage when struck by fire in 1917, but is now undergoing restoration. Webster's home stood some way from Witham, but Defoe may have felt the Colchester link was enough.

This key excerpt concludes with a resumptive paragraph that explains the way in which the foregoing material supports the main drift of the narrative:

> I mention this, to observe how the present encrease of Wealth in the City of *London,* spreads it self into the Country, and plants Families and Fortunes, who in another Age will equal the Families of the antient Gentry, who perhaps were Bought out. I shall take Notice of this in a general Head, and when I have run thro' all the Counties, collect a List of the Families of Citizens and Tradesmen thus established in the several Counties, especially round *London*. (*TGB* 1: 60)

Such a list does not appear in the completed *Tour*. However, in his *Plan of the English Commerce*, Defoe dares to 'oblige' himself to name

> five hundred great Estates, with one hundred Miles of *London*, which within eighty Years past, were the Possessions of the antient *English* Gentry, I mention this, to observe how the present encrease of Wealth in the City of *London,* spreads it self into the Country, and plants Families and Fortunes, who in another Age will equal the Families of the antient Gentry, who perhaps were Bought out. I shall take Notice of this in a general Head, and when I have run thro' all the Counties, collect a List of the Families of Citizens and Tradesmen thus established in the several Counties, especially round *London*, which are now bought up, and in the Possession of Citizens and Tradesmen, purchased fairly by Money raised in Trade (Defoe 1728, 84–5).

It is an issue which Defoe addresses in other works, most pervasively in *The Complete English Tradesman* (Defoe 1727a, 1: 373–5).

One fact stands out above all others when we consider this segment of the *Tour*. It could not possibly have been compiled from existing sources. No published materials provided all the key facts here, let alone displayed the connections that Defoe saw. He could not refer to the volumes of the *History of Parliament* that researchers now take for granted, or consult the *Oxford Dictionary of National Biography*, or look up places in the *Victoria County History* series. The genealogy of commoners scarcely ever made it into print. On his travels he could not drop in to a county record office. It was his own intimate knowledge of people and places in mid-Essex that enabled him to discern the developing trend.[36]

CONCLUSION

Modern research aids make it feasible to detect something of the scale of knowledge of Essex that Defoe possessed, thanks in part to new identifications of persons and places that these permit. While his coverage of some areas away from the highways is sketchier, evidence shows that even here his information is mostly accurate and up to date. It is not possible to confirm what trips he made, or when, but there are strong indications that he visited Essex and Suffolk around 1722, the year when he acquired leases of his property around Colchester. Many first-hand observations about towns and roads confirm his long-lasting acquaintance with portions of the county, radiating out from the main route that led from London to Harwich. Most importantly, close examination reveals a particularly intimate sense of social developments as they relate to the spread of the London mercantile community into the country. This is most perceptible in the estates acquired by a recognisable group of the new City gentry—whose members were predominantly Whig, often dissenters, many from an immigrant family, with a remarkable density in the clothing

trade that Defoe knew so well and chronicled so regularly. Overall, the coverage helps to document and amplify the picture of early Georgian Essex afforded by recent scholars such as Shani D'Cruze (2009, 2010) and H.R. French (2000, 2007).

APPENDIX

John Morley as informant

In 1704–05 Defoe's contact for Robert Harley in Bury St Edmunds was John Morley, through whom he asked his patron to direct letters during an electioneering trip. Morley (1656–1733), brought up to be a butcher, was generally based in and around his birthplace, Halstead. He had been a land agent for Sir Josiah Child, and later served as factotum for the Harley family. Later in the first circuit, Defoe mentions the acquisition of Wimpole near Cambridge through Lord Harley's marriage (which Morley helped to negotiate, for a large commission)—the bride was heiress to the fortune of the Duke of Newcastle (*TGB* 1: 128–9). Morley was also involved in the purchase by Lord Harley of Down Hall near Hatfield Heath in 1720. Here it was proposed to erect a villa for Matthew Prior, designed by James Gibbs with landscaping by Charles Bridgman, but it was forestalled by Prior's death in the following year. The plan lies behind one of Prior's last poems, *Down Hall*, describing the journey he made with Morley into 'fair *Essex*'. In addition, Morley was the agent through whom Lord Harley received a loan of £1,000 from John Knight, MP for Sudbury, in 1724.[37] He was involved in a charity with the Bullocks of Faulkborne Hall (see p. 136).[38] He had possessed property in the parish of Earls Colne, where Defoe acquired land in 1722.

In the most perceptive account of Morley's activities, H.R. French has noted the help that he gave to William Holman of Halstead on his intended history of Essex, drawing on letters in the Morant MSS, ERO, D/Y 1 (see French 2000, 60–3). Some basic material is to be found in Gibbons (1902). Morley was in an excellent position in 1705 to brief Defoe on the social and political climate in place such as Bury, Sudbury and Braintree, where he had numerous contacts. There is no record of his later contacts with Defoe: apart from eight letters to the government official Charles Delafaye in 1718, only one letter of Defoe is known to survive from the entire period 1714 to 1728. In spite of his limited education, Morley assembled an impressive collection of books, sold at Halstead in 1733. They included works on history and antiquities, as well as theology, philosophy and travel. Two copies of Defoe's *Religious Courtship* are present in the catalogue. Much like Daniel Foe (his original name), Morley had gentrified himself.

When Morley died, the arms of the Butchers' Company were placed above his tomb in Halstead, as they had been over the porch of his home, Blue Bridge in Colchester Road, Halstead. In fact, he was not himself admitted to the guild. But he was the son of a butcher, like Defoe, who gained admission to the Company.

If Defoe did visit Essex in the spring of 1722, he may have missed Morley. On 11 Apr. Alexander Pope wrote to Morley (by now a close acquaintance), thanking him for a gift of oysters. He sent the letter to Lord Harley's London home, believing that he would catch his friend there rather than at Halstead. Morley visited Harley's library several times in 1722, once bringing his fellow townsman William Holman to consult Humfrey Wanley on a volume of records dealing with Essex (see Wanley 1966).

ENDNOTES

1 References in the text are supplied with the cue title '*TGB*' and follow Defoe 2001.

2 For an excellent account of Morant's work, see Sweet 1997, 264–73.

3 Defoe was appointed a parochial surveyor of the highways in Stoke Newington in 1717. The London Road had been part of the turnpike created in 1713 (12 Anne, c. 19), as described in *TGB* (2: 241).

4 There was a turnpike gate close to the site of what became a pub known as Whalebone House, on the edge of Chadwell Heath. This stood near the tenth milestone, some two miles short of Romford, where Whalebone Lane now runs (A1112). In the text Defoe refers to the whalebone placed there to form an arch (*TGB* 1: 53).

5 No indication has been found that Defoe had recourse to [Thomas Cox], *Magna Britannia Antiqua & Nova*, vol. 1 (1720). This would have provided little beyond what Camden offered, but would have enabled him easily to pad out entries for places such as Coggeshall where his own coverage was thin. It has recently been confirmed, by reference to documents in the ERO and elsewhere, that Cox was responsible for the counties from Cumberland forwards, including Essex (see Leach 2018).

6 Defoe might have known about constituency business much earlier. In the second letter of the *Tour*, he reports a conversation with Sir John Morden, which took place a year before this eminent Turkey merchant, with strong connections to William III, began to build his home for decayed tradesmen, Morden College in Blackheath (*TGB* 1: 137). (Defoe may have wished to bid for the contract to supply bricks). This would be in about 1694. Morden was MP for Colchester from 1695 to 1698.

7 Defoe would have known that a riot in 1715 against the monopoly powers of the guild of Dutch clothiers weakened their position, when a new act of parliament limited their freedom, and presaged their eventual dissolution in 1728. What he could scarcely have anticipated was that the weavers, allegedly as many as 1,500, would engage in another serious riot at the start of 1725, which caused the corporation to ask for assistance from the secretary of state (ERO, MS D/B 5 Gb7, 179; *Caledonian Mercury*, 12 Jan. 1725; *Newcastle Courant*, 23 and 30 Jan.). According to a press report, three members of a troop of grenadiers had been killed in the affray (*Daily Journal*, 22 Jan). But Defoe was very probably the author of an article in Applebee's *Weekly Journal* on 4 July 1724 which opposed the 'mob justice' of baymakers striking against their masters.

8 See also a reference to the Coke affair in a paper on the Coventry election in Applebee's *Weekly Journal* on 21 Apr 1722, a journal to which Defoe may still have been contributing.

9 Defoe had a friend, Rev. William Smithies or Smythies (*c.*1663–1720), who was rector of St Michael's, Mile End from 1687 to 1720. He gave a sermon before the Colchester corporation that was repeatedly advertised and once defended by Defoe in the *Review*. It was William's son Palmer (1691–1776), succeeding his father as rector from 1720 to 1776, who would have been useful to Defoe in 1722. For this family, one of the most prominent

in Colchester throughout the eighteenth century (see D'Cruze 2010, 2, 256–78).

10 Backscheider 1989, 467–70, 496–7, 503–4, 527. She lists the principal documents from ERO in an endnote (606, n. 1). Among the more interesting items are a 99-year lease on land known as Kingswood Heath, MS D/DC5/18, as well as leases collected in the Morant microfilms, D/Y 2/1 180. Backscheider also noted that Moll's first assignation with a lover took place at Mile End.

11 Sir Henry (d. 1754), third Baronet, succeeded his father William in 1702. His former home at Ruckholt was demolished in 1757, after serving as a 'place of public amusement' for some years.

12 Gibson does not mention this fact (see also Morant 1768, 1: 22).

13 Gibson has a single rather less effusive sentence (Camden 1722, 1: 407–8). On the other hand Macky has a very full description of Wanstead, one of the longest in his work, but without the political colouring of the *Tour* (Macky 1722, 19–24). For passages on Sir Josiah's rise from 'very mean' circumstances, see Defoe 1727a, 1: 301, 328, where the 'noble house' of Sir John Eyles at Gidea Hall is also mentioned.

14 Like other authors, Defoe makes much of Colchester oysters (*TGB* 1: 57)—not surprisingly, since he was actually selling them along with other goods including cloth, honey, leather, buttons and even imported anchovies from his new base locally (Backscheider 1989, 470).

15 Defoe alludes to the work on Dagenham Breach in *Every Body's Business is No-Body's Business* (1725), 30. His wife Mary inherited a farm in Dagenham from her brother in 1725.

16 The entry ends with a compliment to the 'prudent Administration' of the governor of the fort, Lord Newburgh—a politic gesture, as he had become the prime minister's son-in-law on his marriage to Mary Walpole on 14 Sept 1723.

17 He does, however, correctly identify Cowper's deputy, '—*Price*, Esq; Barrister at Law, and who dwells in the Place' (*TGB* 1: 78). This was Robert Price (d. 1741), previously alderman and town clerk, subsequently appointed Recorder in 1726, who was to pay a major role in a key event in Colchester's history—the loss of its charter. He studied at the Middle Temple, and became a serjeant in 1736. As deputy mayor he supervised the borough poll in 1741, confirming the election of the Whig candidates John Olmius II and Matthew Martin (first elected in 1722, a former captain of an East India Company vessel, and father-in-law of both Isaac Lemyng Rebow MP and John Price, younger brother of the recorder). The mayor, Jeremiah Daniell (1670–1742), who was yet another linen draper, had abandoned his duties as returning officer and left it to Price to ensure victory out of an initial loss by disqualifying unwanted Tory voters. The result was overturned on petition in the Commons, and the corporation was dissolved. Price became so unpopular locally that his funeral a few months later was moved to London. His father had bought the manor of Tiptree Priory in 1706, while his own house stood on the site of St John's Green school (see Bensusan-Butt 1987, 67–8).

18 The coverage is mostly accurate on details. For example, Defoe refers to eight churches, besides two damaged and unrepaired since the Civil War (these would be St Botolph's and St Martin's, as St Giles' had been renovated), and correctly describes the partial repair of the tower of St Mary's at the Walls, which would be undertaken in 1729. The main structure was rebuilt in brick in 1713–14, as Defoe indicates (*TGB* 1: 61), with the encouragement of Isaac Rebow. His account of the topography around the Hythe squares with that given by modern authorities. He is also right about the governors of the workhouse, and his statement that the body was incorporated by an act of 1698 (9 & 10 Wm III, c. 37) is accurate, notwithstanding a different dating in ERO, QR 15/58.

19 In the latter work, the spread of the manufacture of bays, once confined to Colchester and Bocking, is described as having reached 'almost all the most considerable Towns in *Essex* beyond *Chelmsford* ' (Defoe 1727b, 42–3). Mention is also made of 'our *Essex* Bays' in Defoe 1728, 186. For a general description of the textile industry in Essex, see Defoe 1727a, 2: 56. As early as 1704, in *Giving Alms No Charity* (17), he had opposed measures which would potentially move the bays industry to London, leaving the poor of Colchester destitute. He repeated this argument almost word for word in the *Review,* 22 and 25 Mar 1707.

20 In a later *Review* (29 Nov 1707), Defoe reproves highflying Tories in Colchester for endangering the bays trade through their support for French interests. Other stories in the *Review* show his continued interest in the town.

21 Defoe 1955, 118. For Wheely's reinstatement in office, see ERO, Q/SBb 38; he is probably the ironmaster who bought the castle in 1683 to demolish it and sell the stone. An 'obstreperous' individual, he subsequently became steward to Isaac Rebow. In 1702 he had been imprisoned for corrupt electoral practices as an agent for Rebow, who was initially disqualified by the Commons but later allowed to regain his seat. A year earlier, Rebow had bought the castle from Wheely, who was heavily in debt. In the light of these facts it is not surprising that Defoe gives Rebow a warm endorsement in the *Tour* (see p. 129 above); he had probably drummed up support for the resilient MP, who was not too particular about where he got votes. Again, contact may have gone back to Defoe's time in the hosiery business, since Rebow was a wealthy clothier from a family of Flemish origin. There is a reference to his family history in *A General History of Discoveries and Improvements* (214). Like Defoe, he engaged in the Portugal trade. The *Tour* refers to his 'very good House' (*TGB* 1: 79); it survives on the corner of Head Street and Isaac's Alley, leading into Eld Lane. See D'Cruze 2010, 2: 133–6.

22 Previously, in May 1721 the Mayor, JPs and Grand Jury of Colchester had petitioned the House of Commons for relief from sufferings inflicted by the decay of trade occasioned by the collapse of South Sea and the frauds committed by directors (*Ipswich Journal*, 21 May 1721).

23 Dale suggests that the *Tour* was following a manuscript by Silas Taylor (1624–78), which was used by Gibson in his entry for Harwich, but it is highly unlikely that Defoe had direct access to this.

24 John Macky did not update his earlier account, made in 1714, for the second edition of his *Journey* in 1722. In *New Description* (1724), the author augments Gibson's comment (Camden 1722, 424) that under Queen Anne commissioners had been appointed to construct new fortifications with the remark, 'but we do not find any great matter has been done in it'.

25 Morant 1768, 1:500, reprints some of Defoe's comments on Harwich.

26 Another of Defoe's heroines, Roxana in *The Fortunate Mistress* (1724), is driven ashore by a storm at Harwich.

27 In the course of 1722 Defoe bought and sold South Sea stock, a spar of his plan to provide for his daughter Hannah, vesting the property in Colchester in her name. The transaction was arranged through Edmund Raynham (*c.*1688–1726), lawyer and mayor in 1722.

28 Macky (1722, 19) still refers to the 'old House.'

29 On his cross-country mission for Harley in 1705, Defoe had taken the route via Cambridge, Bury, Sudbury, Colchester and Chelmsford back to London. He had acquired agents in all these places, and had found one in Braintree, 'Mr Ruggles.' This man certainly belonged to a prominent family of baymakers in the area, perhaps one of the numerous clothiers of Bocking, including James Ruggles or Thomas Ruggles, both named in documents from 1705, or John Ruggles, the will of whose widow Mary was probated on 15 Feb. 1721 (ERO, Ruggles-Brice family papers, DB/ABW 84/1/12).

30 Brief identifications of persons mentioned in this section were provided in Defoe 1971 and repeated in Defoe 2001.

31 Most of the information on the Barwells comes from the well-researched account in Gyford (1996, 203–11).

32 The uncle was Samuel Shute, a London merchant and sheriff in 1682, a leader of the opposition to the court party in the wake of the Exclusion Crisis, who was tried with others for riotous conduct in defying the authorities. Defoe would have observed this episode at first hand. Shute's daughter Elizabeth married Francis Barrington, a Levant merchant, who passed on the estate at Tofts to the future Lord Barrington.

33 National Archives, PROB 11/588/234; copy in ERO, D/P 209/25/5. Cressener family papers, including some related to George, are found in various documents preserved at the Record Office.

34 Locally, he held the impropriation of Braintree parish church in 1709.

35 ERO, Clayton papers, D/Dac 173, dated 21 May 1681. Wescombe is named along with William Emerton of the Middle Temple (subsequently these two families intermarried). Wescombe junior voted for the Whig candidate in the county by-election in 1715, as did Cressener, Herman and John Olmius, Webster and Western, not to mention Sir John Eyles, John Morley, Sir Isaac Rebow, and Samuel Tuffnell. See the pollbook, Exact List 1715: Defoe knew exactly whom he was naming.

36 It is noteworthy that the last house mentioned in the letter is that of John Lethieullier (1659–1737), father of the antiquarian Smart Lethieullier. It is identifiable as Aldersbrook manor, Little Ilford, on the site where the City of London Cemetery was later built. (For the earlier history of the estate, see Camp 1976.) He was the son of a merchant of Huguenot origins, Sir John Lethieullier (1633–1719), who began his business by exporting English textiles to the Levant and rose to become a knight, an alderman and sheriff of London. John II also worked as a Turkey merchant. None of the guidebooks and topographic sources mention the house or its owner. See Defoe 1716, where a passage in the enlarged edition of his famous poem *The True-Born Englishman* reads, 'Your *Houb[lo]ns, Pap[i]llons,* and *Leth[u]liers* / Pass now for true-born *English* Knights and 'Squires, / And make good Senate-Members, or Lord Mayors' (13). The family history is also noted in *A General History of Discoveries and Improvements* (214).

37 ERO, D/DU 502/1, f. 112.

38 ERO, D/ P83/ 25/1.

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THE ESSEX SOCIETY FOR ARCHAEOLOGY & HISTORY
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Archaeological Fieldwork Summaries 2018

Edited by Paul Gilman

Following the revival of the publication of summaries in Volume 6, five organisations have provided summaries for this year's transactions. It is hoped that in future years, more organisations will provide summaries, thereby providing a more complete coverage of the year's archaeological work.

The original summaries provided below, and any associated limited circulation reports, have been added to the Essex Historic Environment Record (EHER) held by Place Services, at Essex County Council, County Hall, Chelmsford CM1 1QH. Regarding sites in the London Boroughs of Barking and Dagenham, Newham, and Waltham Forest enquirers should contact the Greater London HER, Historic England, 4th Floor, Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA.

Other summaries of archaeological work carried out in 2018 and in other years can be found via the O.A.S.I.S. system, maintained by the Archaeology Data Service. Information about O.A.S.I.S. can be found online at oasis.ac.uk. This website also has links to a library of limited circulation reports, known as 'grey literature', and to an online catalogue of summaries.

ARCHAEOLOGY SOUTH-EAST

Compiled by Mark Atkinson and Charlotte Howsam

Alresford, Cockaynes Lane (TM 06331 21628)

Kieron Heard and Samara King

Following the evaluation of *c.*6.56ha of land south of Cockaynes Lane in 2017 (Gilman 2017, 128), which established the presence of prehistoric, Late Iron Age/Early Roman and post-medieval and modern remains, three excavation areas, totalling *c.*1,756sq m, were subsequently targeted upon the recorded remains in the north of the site.

A small quantity of worked and burnt flint of broadly prehistoric date and Early/Middle Bronze Age pottery was found to be residual in later features across the excavation areas.

The remains of a probable Middle Iron Age field system were defined by a series of broadly north-north-east to south-south-west and west-north-west to east-south-east aligned ditches and an associated layer may have been a cultivation soil. Late Iron Age/Early Roman period land use was limited to three pits recorded across the site. A quantity of Early Roman pottery from a pit in the north of the site, comprising a single vessel, may be indicative of deliberate deposition.

More intensive land use was evidenced by two successive phases of medieval rural settlement and an associated field system. The first phase comprised part of a ditched occupation enclosure occupied by a building—possibly the farmhouse itself. A probable pond and associated drainage channel were positioned in close proximity, just outside the enclosure. Quantities of pottery, fired clay and quern stone fragments substantiate its identification as a rural settlement site, spanning the 11th to 14th centuries. The succeeding phase comprised the replacement of the enclosure system on a differing alignment during the 15th/16th century. It is possible that the pond and building were retained in this remodelled landscape.

Post-medieval field boundary ditches and modern land drains and post-holes defining fence lines attested to continued agricultural land use. Several ditches broadly corresponded with boundaries depicted on historic and Ordnance Survey (OS) maps dating from the late 18th century to the present day.

Archive: C.M.
O.A.S.I.S. ref: 323542
A.S.E. project: 171140

Basildon, Land at Nethermayne, Phase 3A (TQ 69654 87210)

James Alexander

Two preceding trial-trench evaluations, in 2006 and 2015, were completed across the *c.*74ha development site of the former Longwood Riding School and Equestrian Centre. Subsequent excavation within the Phase 1 development area was completed in 2016. These previous works encountered ditches and pits indicative of multi-period occupation during the Neolithic, Bronze Age, Iron Age, Roman and Early Saxon periods. Excavation within Phase 3A, in 2018, investigated a *c.*1.5ha area of concentrated remains identified by the 2006 evaluation. The earliest phase of land use activity, indicated by a small number of pits, was of Late Bronze Age to Earliest Iron Age date. Late Iron Age/Early Roman activity was demonstrated by a small number of pits and ditches in the north and east of the excavation area. In addition, concentrated towards the north of the site, were seven urned cremation burials, at least four of which were of Late Iron Age/Early Roman transition date. These likely constituted a small, unenclosed cemetery. A small number of ditches, pits, post-holes and a further cremation burial in the north of the area were indicative of land use activity continuing into the later Roman period (2nd–4th centuries). The majority of recorded features dated to the Early Saxon period (5th–7th centuries) and were concentrated in the east and centre of the excavation area. These comprised a number of ditches, pits and a possible occupation layer/sunken-featured building, likely associated with Saxon ditches previously recorded to the north-east in 2006, and suggestive of settlement occupation.

Archive: S.M.
O.A.S.I.S. ref: 342583
A.S.E. project: 170710

Billericay, Roman Way (TQ 67460 93950)

Trevor Ennis

Preceding archaeological evaluation of the *c.*0.52ha site, in 2017, recorded a possible pit and an overlying buried soil horizon containing a sherd of Roman or medieval pottery, under modern made-ground and topsoil.

The watching brief was focused on two open de-contamination areas in the east of the site and on four adjoining house plots at the west end. Roman period features were recorded in the east of the site and consisted of four ditches and a pit. Pottery

recovered from these features suggests two phases of activity: the earlier dating to the 1st century AD and the later to the early 3rd century AD. Two 1st-century AD ditches may have formed either side of a north-east to south-west aligned trackway, *c*.12m-wide. A third ditch could have been associated. A fourth ditch, on a different north-west to south-east alignment, dated to the early 3rd century AD. The pit could only be dated as being broadly Roman. The Roman features form part of a larger area of settlement remains in and around the grounds of the present-day Billericay School. Modern buildings and their demolition had clearly disturbed large parts of the site in the areas observed.

Archive: Ch.E.M.
O.A.S.I.S. ref: 332357
A.S.E. project: 170246

Braintree, Polly's Field, Bocking (TL 75851 24818)
Paulo Clemente
Previous evaluation undertaken across the *c*.2ha site in 2017 established the presence of prehistoric and post-medieval remains, which were further investigated within a 1,282sq m excavation area.

Early Neolithic remains comprised a buried soil horizon, four deposits interpreted as remnant occupation layers and three pits, suggestive of settlement on the upper slope of the River Blackwater valley. Moderate quantities of worked flint, mostly comprising knapping waste, but also a hammerstone, end scrapers, a piercer and retouched flakes were recovered. Early Neolithic pottery, mostly constituting two near-complete vessels of the Plain Bowl tradition, was recovered from the pits, perhaps representing structured deposition.

Located in the south-west of the site was a pit, covered by a deposit interpreted as an occupation/abandon layer that had accumulated in a shallow hollow. Small assemblages of worked flint and abraded Early or Middle Bronze Age pottery of the Urn tradition were recovered alongside residual Early Neolithic material, including a possible laurel leaf tool.

In the western half of the site, two pits and an L-shaped linear feature, perhaps the partial remains of a structure, were dated as broadly post-medieval; several undated pits nearby may have been contemporary. A colluvium layer, probably reworked by agricultural activity, overlaid all recorded remains.

Archive: Bt.M.
O.A.S.I.S. ref: 315129
A.S.E. project: 171155

Bradwell, Bradwell Quarry, Area A3, Phase 2 (TL 82998 20609)
Mark Germany
Prior monitoring of the Area A3 Phase 1 quarry strip, in 2017, had revealed post-medieval field boundaries and modern features/disturbance associated with the former Rivenhall Airfield (Gilman 2017, 129). The topsoil strip of the 3.86ha Phase 2 area, to the west, exposed ditches identified as the remains of the post-medieval Pantlings Lane, which is shown on early editions of the Ordnance Survey as a former minor thoroughfare within the local agricultural landscape of non-nucleated farms and settlements.

Other ditches constituted late post-medieval/modern field boundaries, most of which had been deliberately infilled during construction of the WW2 airfield.

Archive: Bt.M.
O.A.S.I.S. ref: 318798
A.S.E. project: 180239

Braintree, Rayne Road (TL 74170 23009)
Trevor Ennis
Following evaluation in 2015, three areas, totalling *c*.0.7ha, were selected for excavation within the *c*.5.7ha site at Rayne Road prior to its development. Residual worked flint of Neolithic to Early Bronze Age date, together with two tentatively dated pits of Neolithic and Bronze/Iron Age date, suggested a limited and probably transitory presence in the landscape in the earlier prehistoric periods. Despite the southern site boundary coinciding with the postulated course of Roman Stane Street, no Late Iron Age remains were identified and Roman remains consisted only of two pits and a surface spread of finds.

A small quantity of medieval remains broadly dating from the later 12th to earlier 13th century were identified, with some potentially slightly earlier (possibly 11th century). These were located in the south-west of the site, close to the present-day road and its presumed Roman predecessor, and consisted of several ditches, a few pits/post-holes and two larger quarry pits. It is likely that these features were associated with agricultural activity along the roadside. Post-medieval remains were located in a similar area and mainly comprised two distinct phases of field boundary ditches, dating from the 17th century and later.

Archive: Bt.M.
O.A.S.I.S. ref: 320268
A.S.E. project: 171144

Broomfield, Land West of Blasford Hill (TL 70553 12006)
Ian Hogg
Previous evaluation of the *c*.25.6ha site, in 2017, established the presence of prehistoric, Late Iron Age/Early Roman, medieval and post-medieval remains. The north-east of the site was established to contain a particularly high density of features, interpreted to constitute part of a Roman roadside settlement.

A watching brief was undertaken on the excavation of three geotechnical trial pits in the north-east of the site. In one trial pit, natural deposits were cut by an unidentified feature of Early Roman date. It appeared to run roughly parallel with Main Road, suggesting that it was a boundary ditch similar to those recorded during the previous evaluation. Deposits containing prehistoric and medieval artefacts were recorded overlying the natural in the other two trial pits; it was unclear whether or not these constituted the fills of features that could not be observed within the small interventions.

Archive: Ch.E.M.
O.A.S.I.S. ref: 330247
A.S.E. project: 180319

Chelmsford, 30–30a Orchard Street (TL 7082 0626)

Trevor Ennis

Previous trial-trench evaluation of the *c.*180sq m site, carried out in 2017, revealed ditches, pits and surface layers, of Roman, medieval and later date. A subsequent watching brief on the construction groundworks for the new residential development established that the Roman road leading from Moulsham Street to the *mansio*, identified in the adjacent 1977–78 excavation area (Site AR (Drury 1988, 9–22)), continued westwards across the site. At least two phases of gravel metalling were identified, along with a possible element of repair. In the north-west of the site, a Roman wall foundation trench contained a significant quantity of septaria and Roman tile. The foundation may have carried a timber beam or masonry wall possibly associated with the temple building complex identified in Site AR. Other Roman remains included a few pits and post-holes, as well as two linear features that roughly aligned with similar features present in both the 2017 evaluation trench and 1977–78 excavation area.

Archive: Ch.E.M.
O.A.S.I.S. ref: 337240
A.S.E. project: 180133

Coggeshall, CFK Flood Relief Scheme (TL 84098 21456)

Adam Dyson

Evaluation was undertaken on *c.*155ha of land between Bradwell-juxta-Coggeshall and the town of Coggeshall, in advance of a proposed flood relief scheme. Investigation within 671 trenches, across thirteen fields, revealed a generally low density of archaeological remains across the site, with concentrations located in the south-west and east. Preliminary analysis of the archaeological remains has identified multi-period occupation of the site, during the prehistoric, Roman, medieval and post-medieval periods. The archaeological remains generally comprised ditches/gullies, pits and post-holes, metalled surfaces and made-ground layers, representing areas of settlement occupation and field systems indicative of agricultural land use activities.

Archive: Bt.M.
O.A.S.I.S. ref: 348696
A.S.E. project: 180564

Colchester, Brook Street (TM 00477 24914)

Craig Carvey

An archaeological evaluation carried out in the east of the *c.*18ha Brook Street Phase 1 development site revealed significant landscaping/truncation of the natural deposits, as a result of 19th- and 20th-century development of the rectory and railway yard. A single archaeological feature was identified below made-ground in Trench 1: a pit filled with brick fragments and peg tile considered to be of late 19th-century date. Trench 2 contained a number of intercutting modern intrusions underlying made-ground.

Archive: C.M.
O.A.S.I.S. ref: 319770
A.S.E. project: 170622

Cressing, Land East of Mill Lane, Tye Green (TL 78029 20272)

Samara King

Preceding evaluation of *c.*4.58ha of land to the east of Mill Lane, in 2017 (Gilman 2017, 131), comprised the investigation of thirty-five trenches, which established the presence of prehistoric, Late Iron Age/Early Romano-British and medieval remains. A *c.*1.21ha excavation area subsequently targeted remains in the south-west of the site.

The earliest tangible land use activity was evidenced by a loose cluster of Late Bronze Age to Early Iron Age pits and post-holes (Period 1; *c.*1150–600 BC), mostly in the west of the excavation area, seemingly located within an unenclosed landscape. The small quantity of worked flint and prehistoric pottery recovered from these features, together with fragments of fired clay, animal bone and charred cereal remains, are indicative of occupation and agricultural activities within the immediate landscape; however, no associated building remains were identified.

More obvious rural settlement occurred during the Late Iron Age/Early Roman transition period (Period 2). The remains of a roundhouse gully, measuring *c.*10.2m in diameter with a 2m-wide entrance facing the south-east, nearby pits and part of an enclosure ditch most likely constitute the remains of a small 1st-century AD farmstead. A larger ditch to the south-east perhaps delineated the settlement area to the north-west and agricultural land to the south-east. Although no internal features were found within the roundhouse, its presence at least suggests the continuation of the use of this indigenous settlement form into the Early Roman period.

The majority of remains encountered were of medieval, mostly 12th-century, date (Period 3). Three substantial ditches, aligned north-east to south-west, constituted the remains of a field system dividing the landscape into large agricultural fields, possibly incorporating a trackway. The southernmost field contained at least two phases of drainage gullies and/or cultivation trenches, a number of which appeared to have drained into a large shallow pond to their north. The later phase of these features was wholly confined to the north-east end of the southern field and appeared to be roughly grouped in pairs, representing replacement and/or augmentation. These gullies are perhaps more likely to have had a cultivation, rather than drainage, function. The material evidence recovered from the gullies, and from a scatter of pits around the pond, comprised small quantities of pottery, fired clay, shell, animal bone and quern stone fragments, though the location of any occupation focus from which they may have derived is uncertain. Ephemeral structural remains are tentatively identified as defining parts of two possible buildings of unknown function, both located toward the Mill Lane frontage.

Archaeological monitoring of groundworks outside, to the west of the development site located a single medieval ditch. Although this cannot be directly related to the medieval remains within the excavation area, this demonstrates that the medieval enclosed landscape is more extensive and presumably extends across both sides of Mill Lane.

Archive: Bt.M.
O.A.S.I.S. ref: 331285
A.S.E. project: 171113

Cressing, Land between Mill Lane and Braintree Road, Tye Green (TL 78341 20342)

Trevor Ennis and Sarah Ritchie

Archaeological monitoring of the excavation of eighteen geotechnical test pits, located across a *c.*13ha site between Mill Lane and Braintree Road, recorded the presence of archaeological features in two test pits, comprising the remains of ditches in both instances. A relatively substantial ditch in the east of the site corresponds with the position of a field boundary shown on the 1842 Cressing Tithe Map and other, later historic maps. The second ditch in the south-east is likely to have been of medieval or post-medieval date.

Subsequent evaluation of the site comprised the investigation of ninety-three trenches, of which fifty-eight contained archaeological remains. No prehistoric features predating the Iron Age were identified, though residual prehistoric struck flints, including one finely-worked Early Neolithic leaf arrowhead, were recovered. A single Middle Iron Age ditch was recorded.

Late Iron Age/Early Roman period remains were situated in the southern half of the site, with a particular concentration in the south-east. 1st-century AD boundary ditches, pits, post-holes, a dark spread deposit, a possible flint cobble surface and a cremation burial were recorded. Two ditches in the west of the site may not have become fully infilled until later in the Roman period.

A few small ditches in the south of the site and one in the east contained 11th- to 13th-century pottery. One post-medieval field boundary predated the 1842 Cressing Tithe map. This ditch linked with others defining the field system that is depicted on the Tithe map and on historic OS mapping into the 20th century.

Archive: Bt.M.
O.A.S.I.S. ref: 316360 and 333006
A.S.E. project: 180312 and 180268

Elmstead, Land at Elmstead Hall (TM 06018 25897)

Kieron Heard

Following trial-trench evaluation of the *c.*13ha site in 2010 (Tyler 2011, 239), which revealed a series of ditches and pits of generally Roman date, an excavation area measuring *c.*4.9ha subsequently targeted the recorded remains concentrated in the centre of the site.

Transient Early Bronze Age activity in the area was suggested by a relatively rare, albeit unstratified and incomplete, flint dagger, while a small pit and a nearby un-urned cremation burial provided limited evidence for land use during the Middle Bronze Age. Late Bronze Age/Early Iron Age occupation was attested by several shallow pits and a small, stone-lined hearth.

Three distinct phases of Roman activity were identified. During the earliest phase (broadly dated AD 43–120), a curvilinear boundary ditch or possible sunken trackway partially enclosed a large open area containing four refuse pits and a short ditch of unknown function.

A significant change of land use occurred in the early 2nd century when a rectilinear field system was laid out. A large number of shallow pits provide inconclusive evidence for associated activity.

In the later 2nd century, the field system was superseded by two rectangular ditched enclosures, preserving the alignment of existing ditches; elements of the original field system may have been retained. A localised area of dense pitting and associated dumping in the south-east of the larger enclosure was suggestive of occupation. Although no *in situ* Roman building remains were found, assemblages of domestic pottery, ceramic building material and fired clay were suggestive of nearby settlement.

The site was abandoned in the early 3rd century and remained disused until the late medieval/early post medieval period when a new field system was established. This might have coincided with the construction of nearby Elmstead Hall (dated 15th century or earlier). A cattle burial, radiocarbon-dated to the earlier 15th century, provides some evidence for animal husbandry. In the 18th century, the field ditches were backfilled and new larger, more regularly shaped fields were laid out, which were in use until just after the Second World War when the fields were amalgamated.

Archive: C.M.
O.A.S.I.S. ref: 304286
A.S.E. project: 170552

Great Wakering, Star Lane (TQ 93684 87411)

Letty Ingrey and Matt Pope

A geoarchaeological evaluation comprised the excavation of twelve test pits across *c.*8ha of land at Great Wakering. This did not result in the collection of any artefacts, and no clear evidence of Palaeolithic material was encountered; however, the test pits did encounter Pleistocene deposits of fluvial terrace sands and gravel between 7.0m and 7.5m OD. It is thought that the sands and gravels are part of the MIS 10-9-8 Lynch Hil/Barling Gravels, which are rich in Palaeolithic finds in the Thames-Medway systems. In two of the test pits, possible evidence of a buried land surface was encountered. This was lying above the gravel deposits and below a thick layer of brickearth. A brickearth of either primary or redeposited loess overlies the fluvial sands and gravels.

Archive: S.M.
O.A.S.I.S. ref: 310742
A.S.E. project: 170289

Halstead, Sudbury Road (TL 82272 31428)

James Alexander

Following a geophysical survey of *c.*20ha of land east of Sudbury Road, which identified no anomalies of probable or possible archaeological origin, except for those indicative of disused late post-medieval/modern field boundaries, evaluation of the southern *c.*10ha of the site comprised the investigation of sixty-seven trenches. Of these, seventeen were found to contain a low density of archaeological remains, comprising ditches and a small number of pits.

A single pit broadly dated to the Roman period provided the only evidence of land-use activity pre-dating the post-medieval period. The majority of the recorded features were of post-medieval/modern date and constituted the remains of agricultural land use. Several north-north-east to south-south-west aligned ditches and a large pit corresponded with anomalies identified by the previous geophysical survey. These

features also correlated with field boundaries and a pond depicted on historic Ordnance Survey maps.

Archive: Bt.M.
O.A.S.I.S. ref: 333118
A.S.E. project: 180092

Hullbridge, Malyons Farm (TQ 80554 94951)

Justin Russell

A programme of historic building recording of a silhouette-detection floodlight base was undertaken at Malyons Farm, Hullbridge. These structures were built in 1939 as part of a phase of experiments into the detection of enemy aircraft in darkness conducted in 1939/40. A group of fifty ground-based floodlights (the North Weald group) were constructed across an area of 200 square miles (518sq km) in order to light up the cloud, so that a hostile aircraft flying above would be visible in silhouette to a defending aircraft flying at a greater height. After the experiments were concluded a failure, the floodlights were dismantled leaving only the concrete bases.

The Hullbridge floodlight base, although removed from its original location, comprised ten largely complete slabs of the dodecagon structure; the remaining two slabs were likely to have been present but were severely broken up. Although in a 'demolished' state, the floodlight base illustrates aspects of the design and construction of such floodlight sites, including the depth of foundations and their internal reinforcement with steel wire and mesh. Given the rarity of such surviving structures, this site contributes to the understanding of the wider North Weald floodlight group overall.

O.A.S.I.S. ref: 333004
A.S.E. project: 180727

Little Waltham, Channels Phase 4 (TL 71837 10657)

Trevor Ennis

Archaeological evaluation comprised the excavation of five trial trenches located in the south and east of the *c*.5.12ha Phase 4 development site on part of the former Channels Golf Club. The site was largely occupied by a lake, formerly a gravel quarry pit, as indicated by 19th- and 20th-century Ordnance Survey maps. Four trenches contained archaeological features constituting the remains of former quarrying activities. In the south of the site, the original edge of the former quarry pit was revealed, demonstrating that the existing lake is not representative of its full original extent. Two further large pit-like features, or possibly one single feature, were encountered in the east of the site. These remains are either earlier, late 19th-century, extraction or else the original eastward continuation of the extant quarry/lake.

Archive: Ch.E.M.
O.A.S.I.S. ref: 329430
A.S.E. project: 180257

Newport, London Road (TL 51978 33453)

Rob Cullum

Evaluation of *c*.4.5ha of land west of London Road revealed a low density of prehistoric, medieval and post-medieval remains. These formed concentrations in the north, west and south-west of the site. The prehistoric features included pits and post-holes of Early Iron Age date, scattered across the north and central-west parts of the site and indicative of a low intensity of late prehistoric land use. Scattered medieval remains were encountered in the west of the site, though only a single possible ditch and a subsoil artefact scatter were identified. These remains most likely represented agricultural land use outside the medieval settlement of Newport. Post-medieval ditches and pits were confined to the north-east corner of the site; these related to an earthwork and small copse depicted on later 19th-century mapping.

Archive: S.W.M.
O.A.S.I.S. ref: 317997
A.S.E. project: 180138

Rochford, Land at Hall Road (TQ 86803 90758)

Paulo Clemente

Preceding evaluation of the *c*.27ha site in 2012, and subsequent excavation of four areas (Areas 1, 2a, 3 and 5) in 2016 (Gilman 2016, 234), encountered evidence of Neolithic, Bronze Age, Iron Age, medieval and post-medieval settlement and agricultural land use.

Excavation of Areas 2b and 4, in 2018, recorded multi-period remains largely in keeping with earlier investigations at the site. Residual early prehistoric worked flints included a probable Upper Palaeolithic flint blade. A cluster of pits and gullies encountered within Area 2b were dated to the earlier prehistoric, possibly being Neolithic. During the Middle/Late Bronze Age, an extensive rectilinear/coaxial field-system was established. This was a continuation of the same system investigated during the 2016 excavations. Only a single small cluster of Late Iron Age/Roman pits was found in Area 4, perhaps peripheral to a nearby rural settlement.

The western periphery of an enclosed medieval farmstead, fronting onto the extant and historic Ironwell Lane, and accompanying field-system were recorded. These remains were a further part of the medieval complex previously investigated in adjacent Area 2a. The recovered pottery and charred plant remains suggested some possible domestic and/or specialist activities, as well as a mixed farming regime. The farmstead appeared to have been active during the 11th to 14th centuries, with declining use as the late medieval period progressed. Other medieval remains encountered in Area 4 may have constituted parts of a separate settlement further west along the lane.

The medieval farmstead appeared to have been redefined by an enclosing ditch and associated post-built structure in the post-medieval, most likely related to continued agricultural use of the former settlement site. Other post-medieval land use recorded on site comprised field boundaries and quarrying activities.

Archive: S.M.
O.A.S.I.S. ref: 334111
A.S.E. project: 170910

Saffron Walden, St Mary's Church (TL 53726 38622)
Ellen Heppell
An archaeological watching brief monitored groundworks for the improvement of facilities within St Mary's Church and the associated exterior services. The interior works were undertaken at the west end of the church and involved the lifting of ledger stones on the floor and their relocation. The monitoring of the excavation of foundation trenches for a new WC and the relocation of the font identified a post-medieval brick structure, possibly a wall, and a post-medieval/modern brick soakaway associated with an earlier relocation of the font. The footings of parts of the south and west walls of the south aisle of the church were recorded. The exterior works involved the excavation of a narrow pipe trench across the churchyard to the west and south of the church. Archaeological observation identified some *in situ* skeletal remains at depth, along with grave cuts and soils, and levelling/clearance layers containing disarticulated remains. The upper levelling layer, below the modern access route, is likely to relate to the final use of the graveyard for burials in 1857.

Archive: S.W.M.
O.A.S.I.S. ref: 316339
A.S.E. project: 160413

Silver End, Boars Tye Road (TL 80855 20436)
Samara King
Evaluation of *c.*2.37ha of land north of Boars Tye Road encountered a low density of archaeological remains. An undated pit and a possible post-medieval ditch were located in the north part of the site.

Archive: Braintree Museum
O.A.S.I.S. ref: 327617
A.S.E. project: 180615

Stansted Mountfitchet, Land West of High Lane (TL 51437 25984)
James Alexander and Sarah Ritchie
Evaluation of 1.37ha of land west of High Lane, comprising the investigation of seven trenches, identified potential archaeological remains, which were confined to the northern part of the site. Eight parallel, broadly north-to-south aligned, linear gully/ditch features were recorded, potentially dating to the medieval and post-medieval periods. These features were initially interpreted to be indicative of small-scale agricultural activity.

Subsequent excavation of a 730sq m area further investigated these remains in the north of the site. The excavation recorded at least a further thirty-two parallel, broadly north-to-south aligned, linear features, from which a small assemblage of post-medieval finds were recovered. These features appeared to follow the line of the crop stubble observed across the unexcavated part of the field and have been re-interpreted as constituting the remains of post-medieval/modern plough furrows.

Archive: S.W.M.
O.A.S.I.S. ref: 331156
A.S.E. project: 180624 and 180787

Stanway, Field House, Dyers Road (TL 95422 23491)
Rob Cullum
An evaluation, comprising the excavation of eleven trenches, was undertaken on this *c.*1.9ha site at Field House. The evaluation revealed a low density of archaeological remains, consisting of four probable tree holes of uncertain date and the terminus of a post-medieval ditch. A high degree of root disturbance was observed across the site. These results are consistent with those of archaeological investigations previously conducted in the surrounding vicinity and it is concluded that the Iron Age and Roman activity evidenced south of Dyers Road did not extend this far north.

Archive: C.M.
O.A.S.I.S. ref: 326652
A.S.E. project: 180285

Takeley, Coppice Close, Dunmow Road (TL 54406 21234)
Samara King
An evaluation of *c.*1.6ha of land adjacent to Coppice Close uncovered the archaeological remains of a small number of ditches/gullies, pits and post-holes distributed across the site. A Middle Iron Age ditch and an elongated pit were located in the east of the site and may suggest occupation of this date in the wider vicinity. A large late medieval to early post-medieval pit located in the central part of the site most likely relates to small-scale rural quarrying. Metal artefacts of a domestic character found in the quarry backfill may derive from contemporary settlement in the vicinity. Post-medieval remains, comprising a gully, pit (possibly a quarry?), post-hole and ill-defined deposits in apparent hollows, were found across the site. These presumably relate to late agricultural and further possible quarrying activities.

Archive: S.W.M.
O.A.S.I.S. ref: 327114
A.S.E. project: 180400

Thorpe Le Soken, Landermere Road (TM 18570 22580)
Mark Germany
Preceding evaluation of the *c.*5.8ha site south of Landermere Road, in 2017 (Gilman 2017, 136), recorded a series of largely parallel ditches and gullies, together with pits and post-holes, in its north-west, tentatively interpreted as defining an area of medieval agricultural activity. A 2,200sq m excavation area focused upon these remains recorded a sequence of intercut complexes of medieval pits overlain by a largely orthogonal arrangement of ditches and gullies of post-medieval date. A number of post-medieval and undated pits were also encountered. The intercut pit complexes are interpreted as the remains of localised quarrying in a rural context, which were infilled with material containing pottery and other artefacts of likely domestic origin, mostly dating to the 11th–13th centuries. Of particular significance was an anthropomorphic carved terminal from a bone knife handle. The overlying post-medieval ditches and gullies contained a component of residual artefacts deriving from the quarry pits. The function of these perpendicular linear features is unclear but

is conjectured to define small enclosures of an agricultural nature—perhaps for stock management. The association of the scatter of post-medieval and undated pits to this phase of land use is similarly unclear.

Archive: C.M.
O.A.S.I.S. ref: 320424
A.S.E. project: 171125

Waltham Abbey, Royal Gunpowder Mills, Beaulieu Drive (TL 37529 01322)

Michael Shapland

A programme of historic building recording of some 249 buildings and other structural remains was undertaken within the Scheduled area of Royal Gunpowder Mills (National Heritage List No. 1016618), using the 1994 Carden and Godfrey survey as a baseline for their changing condition over the past twenty-five years. While the condition of many of the structures had declined since 1994, and some had collapsed entirely, the majority have endured reasonably well, considering the often rather sporadic maintenance that they may have received over the years. There is an element of self-selectivity in this, since many of the structures across the scheduled area related to the manufacture or storage of explosives, and were strongly-built. Many of the flimsier structures that may once have existed were either deliberately dismantled by the MOD during the decontamination of the site, or had otherwise not survived into the early 1990s to be included by Carden and Godfrey. Of the 249 structures, 108 were considered to merit active repair or ongoing maintenance, due to their heritage significance. A further forty were thought to need some short-term work before being left alone for the short-to-medium term. The remaining 101 structures were not thought to merit any intervention or maintenance for the time being.

A.S.E. project: 180515

White Roding, Colville Hall, Chelmsford Road (TL 55346 13424)

Craig Carvey

An archaeological watching brief and evaluation were carried out at the Scheduled Monument of Colville Hall (National Heritage List No. 1002124), a moated site containing several medieval and post-medieval timber-framed and thatched barns, and other traditional farm structures of a wealthy farmstead, ranging from the 12th to 18th century, many of which are Grade I or II Listed. The archaeological work involved the monitoring of construction groundworks for the redevelopment of Cart Lodge to the west of the main complex and the investigation of two evaluation trenches in advance of the construction of a new garage to the north-east.

Structural archaeological remains, comprising a small number of post-holes and a possible floor layer associated with the post-medieval Cart Lodge, were recorded following the removal of its timber frame. Variation between the post-holes may be indicative of at least two phases of building modification; however; no *in situ* dating evidence was retrieved to clarify this. A pit containing discarded 19th- to 20th-century material was also identified within the vicinity of the Cart Lodge.

No archaeological features or deposits were identified within the two evaluation trenches investigated to the north-east of the Colville Hall complex, at the site of the new garage.

Archive: S.W.M.
O.A.S.I.S. ref: 338292
A.S.E. project: 180832

Witham, Former Rivenhall Oaks Golf Centre (TL 82866 16267)

Trevor Ennis

Previous Phase 1 evaluation and area excavation within the *c.*16.7ha development site, formerly part of the Rivenhall Oaks golf course, in 2015 and 2016, recorded multi-phase remains of both unenclosed and later enclosed Early to Middle Iron Age settlement.

Twenty-seven evaluation trenches were excavated to the east, across the *c.*4.35ha Phase 2 development area; fifteen of the trenches were found to contain archaeological remains. Few remains of Iron Age date were identified and it is clear that the settlement identified in Phase 1 did not continue this far east. Only two pits of Early Iron Age date were present towards the centre of the site, although it is possible that one or two undated linear features in their proximity could have been contemporary. It is probable that land to the north-east of the settlement consisted largely of unenclosed farmland at this time. There was no evidence of occupation continuing into the Late Iron Age.

Roman remains were present in the north-east of Phase 2, consisting of three ditches and two pits broadly dating to the 1st to 2nd century. An undated pit in the same area may also have been contemporary. It is likely that these remains were associated with a localised area of Late Iron Age/Early Roman land use activity situated beyond the eastern confines of the site. A ditch or elongated pit dated to the 3rd century, or later, provided limited evidence of continued land use later in the Roman period.

No remains of Saxon or medieval date were identified, with post-Roman land use only being represented by post-medieval field ditches previously plotted as cropmarks and depicted on historic Ordnance Survey mapping from the 1870s through to the 1950s.

Archive: Bt.M.
O.A.S.I.S. ref: 321153
A.S.E. project: 170468

COLCHESTER ARCHAEOLOGICAL TRUST

Compiled by Howard Brooks

Birch, Hanson Quarry, Maldon Road (TL 9197 1927)

Mark Baister, Stephen Benfield, Adam Wightman, Val Fryer, Julie Curl, Sarah Carter, Emma Holloway

Since 1995, CAT have been monitoring, evaluating and excavating various parts of the expanding Birch pit. As might be expected over a large area, multi-period activity has been revealed, principally of Bronze Age to Roman, and medieval and post-medieval date.

In the 2018 season, the level of disturbance from the demolished WWII airbase was less intensive than in previous, adjacent phases. Discoveries included three prehistoric pits, and a large, steep-sided Late Bronze Age/Early Iron Age pit with a large assemblage of Late Bronze Age/Early Iron Age pottery, burnt flints, burnt animal bone, a piece of puddingstone, and half of a polished Neolithic flint axe. Thirteen Late Iron Age or Early Roman features were principally the ditches of a field system aligned north-west to south-east. Medieval remains included two pits and a ditch, and, over an area of 15 x 30m, a surviving patch of a medieval cultivation system typified by shallow ditches aligned north-east to south-west, 320mm to 560mm wide and 550mm to 850mm apart. There were four post-medieval/modern field boundary ditches, of which two match those seen on the 1st edition OS.

Archive: C.M.
O.A.S.I.S ref: colchest3-321923
C.A.T. Report: 1295

Clacton-on-Sea, former car park off Ravensdale, CO15 4QH (TM 17729 16572)

Ben Holloway, Sarah Carter, Elliott Hicks, Matthew Loughton, Laura Pooley, Alec Wade, Chris Lister, Emma Holloway

The site is in the grounds of the former Great Clacton Hall, which must pre-date 1777. The 12th-century parish church of St John the Baptist lies directly to the south. Evaluation (two trenches) in advance of residential construction revealed three probably medieval inhumations, a wall either associated with the church of St John the Baptist or Great Clacton Hall, a post-medieval wall foundation and yard surface of Great Clacton Hall, and a number of mostly post-medieval pits.

Archive: C.M.
O.A.S.I.S ref: colchest3-327362
C.A.T. Report: 1338

Coggeshall, land east of Tilkey Road, CO6 1QN (TL 84908 23426)

Nigel Rayner, Mark Baister, Elliott Hicks, Laura Pooley, Stephen Benfield, Lisa Gray, Alec Wade, Ben Holloway, Emma Holloway

The site is close to the location of several late medieval or early post-medieval kilns associated with the monks of Coggeshall Abbey. Evaluation (five trenches) prior to residential development revealed a Late Bronze Age/Early Iron Age ditch terminus, a Middle Iron Age post-hole, ditch and pit, a medieval ditch and a post-medieval ditch. There was no evidence of tile and brick manufacture. A later excavation revealed a significant Middle Iron Age settlement/farmstead consisting of three roundhouses and one four-post structure, with some activity beginning in the Late Bronze Age/Early Iron Age. The four-post structure was probably a granary, indicating that cereal crops or legumes were grown on or near the site. Faunal remains suggest that cattle and sheep/goat were being kept, fragments of possible loom weight indicate weaving, and the pottery is probably from a domestic assemblage. A medieval ditch, dated to c.11th to 12th centuries, was also excavated.

Archive: Bt.M.
O.A.S.I.S refs: colchest3-305916, 327161
C.A.T. Reports: 1229, 1315

Colchester, 2-3 Priory Street, CO1 2PY (TM 00012 25004)

Elliott Hicks, Sarah Carter, Nigel Rayner, Adam Tuffey, Laura Pooley, Julie Curl

The site is within the former precinct of St Botolph's Priory, whose church walls (now robbed out) are only 25m to the south. Inhumation burials associated with the Abbey were seen this site during previous investigative work. Seven test-pits were excavated under archaeological supervision. Below modern and post-medieval overburden, two articulated burials were excavated, both females, 25–35 years old (Skeleton 1) and 17–25 years old (Skeleton 2). Samples from both skeletons produced calibrated radiocarbon dates of 1050–1290 AD and 1040–1270 AD respectively. A third articulated burial was left *in situ*. In addition, a quantity of disarticulated human bone (from six or more individuals) was recovered from the test-pits. The burials may be in a medieval lay cemetery associated with St Botolph's Priory, or possibly with an earlier church.

Archive: C.M.
O.A.S.I.S ref: colchest3-310236
C.A.T. Report: 1236

Colchester, 23 Castle Road, CO1 1UW (TM 0008 2547)

Nigel Rayner, Ben Holloway, Elliott Hicks, Stephen Benfield

The site is within the Roman town, 90m west of the town wall, and 100m south-south-east of Duncan's Gate. Monitoring during the erection of a conservatory revealed a Roman dump layer 0.8m below current ground level, possibly associated with the remains of a Roman building found during previous investigations next door at 24 Castle Road.

Archive: C.M.
O.A.S.I.S ref: colchest3-306775
C.A.T. Report: 1220

Colchester, Bridge House, Hythe Quay, CO2 8JB (TM 0145 2474)

Nigel Rayner, Robin Mathieson, Alec Wade, Laura Pooley, Stephen Benfield, Lisa Gray

The Hythe has been the port for Colchester probably since the Norman period. A Roman road which can be traced to within half a mile of the Hythe from the direction of Mistley means there may be a Roman quay or bridge in this area. Evaluation prior to residential development revealed a medieval wall foundation of medium to large compacted stones, four medieval pits and a medieval ditch.

Archive: C.M.
O.A.S.I.S ref: colchest3-311844
C.A.T. Report: 1264

Colchester, Colchester Northern Gateway, Plots 2/3, CO4 5JA (TL 99878 29486)
Adam Wightman, Sarah Carter, Elliott Hicks, Ben Holloway, Laura Pooley, Stephen Benfield, Lisa Gray, Mark Baister, Emma Holloway
Evaluation (120 trenches) revealed twenty-four charcoal-rich pits probably created by charcoal burning. Dating evidence was scarce, but two contained Roman and post-Roman finds. Radiocarbon dates from two pits were Middle Iron Age and Late Anglo-Saxon/early medieval respectively. Taking into account seventy-seven charcoal-rich pits from other local investigations, it appears that charcoal production was occurring in this part of northern Colchester from the Early Iron Age through to the medieval period.

Archive: C.M.
O.A.S.I.S ref: colchest3-301355
C.A.T. Report: 1219

Colchester, Colchester North Area B development, CO4 6AH (TL 984 238)
Nigel Rayner, Sarah Carter, Robin Mathieson, Adam Tuffey, Alec Wade, Laura Pooley, Stephen Benfield, Julie Curl, Lisa Gray, Ben Holloway, Emma Holloway
The site (Area B) is part of the large-scale residential and commercial development of land south of the Colchester A12 bypass, formerly known as Northern Growth Area Urban Extension, but now 'Colchester North'. Following evaluation in 2011, excavation on Area B revealed a small Middle Bronze Age cemetery consisting of one definite and two probable cremation burials in a cluster to the south-south-east of two prehistoric ring-ditches. All three burials contained the disturbed remains of Ardleigh-style Deverel-Rimbury cremation urns, but only one included a small quantity of cremated human bone. This bone produced a 2-sigma calibrated radiocarbon date (at 95.4% confidence) of 1374 to 1125 BC. There were no finds in the fills of the ring-ditches. Three possible prehistoric features (two pits and a post-hole), two post-medieval/modern ditches were also excavated.

Archive: C.M.
O.A.S.I.S ref: colchest3-323053
C.A.T. Report: 1298

Colchester, County High School for Girls, Norman Way, CO3 3US (TL 9800 2468 & TL 9796 2471)
Ben Holloway, Elliott Hicks, Emma Holloway
The site is within the Late Iron Age *oppidum* of Camulodunum and the Late Iron Age and Roman Lexden cemetery. A triple-ditched dyke uncovered during the construction of the school in 1955 was projected to run directly through the site. Evaluation (three trial-trenches) uncovered three undated pits, two post-Roman pits and two natural features. There was no trace of the triple-ditch.

Archive: C.M.
O.A.S.I.S ref: colchest3-304152
C.A.T. Report: 1211

Colchester, Essex County Hospital, Lexden Road, CO3 3NB (TL 98923 24878)
Mark Baister, Adam Wightman, Sarah Carter, Laura Pooley, Stephen Benfield, Lisa Gray, Emma Holloway
The site (formerly the Essex County Hospital) is south-west of the walled Roman town, on the main Roman road from Balkerne Gate and (most importantly) within a high-status Roman cemetery which has produced the Colchester Sphinx sculpture and the famous *Longinus* and *Facilis* tombstones. A stage 1 archaeological evaluation by seven test-pits in the north and south car parks of in advance of redevelopment revealed Roman contexts at depths of 0.4–0.95m below current ground level. These included a number of undated and Roman features, an undated pit/grave, and the remains of an oven or kiln.

Archive: C.M.
O.A.S.I.S ref: colchest3-314501
C.A.T. Report: 1255

Colchester, 'Hammonds', land north of Elmstead Road/east of Swan Close, CO4 3BL (TM 0224 2442)
Ben Holloway, Sarah Carter, Robin Mathieson, Adam Tuffey, Alec Wade, Laura Pooley, Elliott Hicks, Stephen Benfield, Lisa Gray, Emma Holloway
The site is 300m north-north-east of a group of Bronze Age barrows, of which only two now survive above ground, on the banks of the River Colne. Extensive evaluation on land to the south (principally before the construction of the University's Knowledge Gateway) has revealed sporadic prehistoric and Roman-period remains, including Roman burials. The presence of burials and other Roman material implies that there is an unlocated Roman settlement somewhere in the vicinity. Finds of medieval pottery likewise indicate local medieval activity. Prehistoric flints indicate activity over this landscape in the Neolithic and Bronze Age.

Excavation following the above evaluation revealed nine medieval ditches aligned north-north-west to south-south-east and east-north-east to west-south-west, a quarry pit and several smaller pits. The ditches are probably field boundaries, and, together with the finds, are further evidence of medieval activity in the locality. In all probability, this may be an early version of what is now the adjacent Salary Brook Farm. There was also a small quantity of residual prehistoric and Roman material.

Archive: C.M.
O.A.S.I.S refs: colchest3-308445, 314949
C.A.T. Reports: 1233, 1296

Colchester, Hawkins Road, CO2 8JX (TM 0157 2453)
Ben Holloway, Elliott Hicks
The site is at the Hythe, Colchester's port since at least the 13th century (if not earlier). Evaluation (three trial-trenches) in advance of the commercial construction revealed a late 17th- or early 18th-century wall foundation. This was probably part of a warehouse cellar.

Archive: C.M.
O.A.S.I.S ref: colchest3-317243
C.A.T. Report: 1282

Colchester, Kingswode Hoe School, 18 Sussex Road, CO3 3QJ (TL 98324 25206)
Nigel Rayner, Alec Wade, Adam Tuffey, Elliott Hicks, Matthew Loughton, Julie Curl, Laura Pooley, Stephen Benfield, Adam Wightman, Sarah Carter, Ben Holloway
Kingswode Hoe School is on the south-western edge of Sheepen, one of the two principal *foci* of the Late Iron Age and Early Roman oppidum of *Camulodunum*, and the Sheepen Dyke (one of *Camulodunum's* defences) crosses the school site. Evaluation by one trial trench prior to the construction of a new school building revealed a Late Iron Age or Roman ditch and pit, a large Roman quarry pit, two possible Roman inhumation burials, and five undated features. A later excavation stage in advance of the construction of a new schoolroom revealed three 1st-century graves, and pits of the same period. Two large post-medieval quarry pits in the northern half of the site had disturbed a Roman cremation burial.

Archive: C.M.
O.A.S.I.S refs: colchest3-311138, 324020
C.A.T. Reports: 1278, 1342

Colchester, Mercury Theatre, Balkerne Gate, CO1 1PT (TL 99281 25157)
Chris Lister, Ben Holloway, Laura Pooley, Mark Baister
The site is immediately west of the Balkerne Gate, the western gate to Roman Colchester, and in *Insula* 25a of the Roman town. The Scheduled Roman town wall (National Heritage List No.1123664) lies only 10m west. The Mercury Theatre is known to be on the site of one or more Roman town-houses with surviving wall foundations, tessellated and mosaic floors, and also the remains of earlier buildings including from the 1st-century Roman fortress. Monitoring during the excavation of six window sample boreholes and two boreholes as part of preliminary work for the Mercury Rising project revealed modern horizons to a depth of 0.6–1.25m below current ground level, beneath which were Roman contexts 1.15m to 2.05m thick. Natural ground was at 2.1 to 3.15m below current ground. Two of the boreholes cut the backfill of an early 19th-century reservoir.

Archive: C.M.
O.A.S.I.S ref: colchest3-302929
C.A.T. Report: 1333

Colchester, St James' House and the waiting room, Queen Street, CO1 2PQ (TL 99581 25111)
Adam Wightman, Alec Wade, Nigel Rayner, Stephen Benfield, Emma Holloway
The site is in the south-eastern angle of the Roman walled town, immediately north of the Roman town wall and north-east of the south gate. Evaluation shows there is good archaeological preservation between the modern structural remains of St James' House. These include a 1-metre-deep sequence of Roman floors (including a mosaic consisting of red, white and black tesserae), the brick plinth of a medieval or later timber-framed building, and a post-medieval cobbled surface and a brick soakaway. A Roman gravel street dividing *Insulae* 38b and 39 should have passed through St James House, but was not seen. Previous sightings of this street will need to be re-evaluated.

Archive: C.M.
O.A.S.I.S ref: colchest3-299388
C.A.T. Report: 1230

Colchester, St Helena School, Sheepen Road, CO3 3LE (TL 9889 2589)
Adam Tuffey, Laura Pooley, Stephen Benfield, Emma Holloway
The St Helena School site is in an area of high archaeological importance, within the oppidum of *Camulodunum* and on the site of two Romano-Celtic temples. Monitoring of the 0.9m deep foundation pits for four new rugby posts revealed no significant archaeological horizons. However, a residual Roman spearhead came from a post-Roman horizon.

Archive: C.M.
O.A.S.I.S ref: colchest3-303726
C.A.T. Report: 1231

Colchester, The Triple Dyke: 78 Straight Road, CO3 9DB (TL 9647 2477)
Nigel Rayner, Robin Mathieson, Laura Pooley, Lisa Gray, Sarah Carter
The site overlies the central ditch of the Scheduled earthwork known as the Triple Dyke (National Heritage List No. 1019993), which is a Roman-period addition to the Late Iron Age dyke system surrounding the pre-Roman oppidum of *Camulodunum*. Evaluation prior to residential development revealed the western edge of the central ditch (the eastern edge being beyond the site edge), and the space between the western and central ditches formerly occupied by a bank (evident elsewhere on the line of the Triple Dyke but absent at this particular location). Three test-holes east of the development site indicate that the ditch was between 5.2m-6.5m wide. This corresponds to previous work 0.63km to the north which measured it at *c*.5.3m wide and 1.8m deep, with a flat base. On the current site, the ditch was excavated to 0.9m without reaching it base. There were no finds. Later monitoring showed that the central ditch measured 5.4m across. It was excavated to depth of 1.4m, but was not bottomed for safety reasons.

Archive: C.M.
O.A.S.I.S ref: colchest3-312273, -315582
C.A.T. Report: 1253 and 1283

Colchester, 'Willowdene', 39 Oaks Drive, CO3 3PS (TL 98822 25159)
Nigel Rayner, Elliott Hicks
The site is close to the Iron Age and Roman industrial complex at Sheepen, and the Roman 'Lexden Cemetery'. Monitoring during the construction of an extension revealed no archaeological features. Groundworks did, however, penetrate a homogeneous layer about 2m deep below modern ground which contained a significant amount of Roman pottery, tile, and bricks. Given the Roman kilns at Sheepen, the bricks may indicate a local Roman brick kiln.

Archive: C.M.
O.A.S.I.S ref: colchest3-320908
C.A.T. Report: 1318

Dedham, East of England Co-op, High Street, CO7 6DE (TM 05752 33180)
Ben Holloway, Sarah Carter, Emma Holloway, Laura Pooley, Stephen Benfield
The Co-operative stores is a 16th-century Grade II* Listed Building in the heart of Dedham and only 50m from the medieval St Mary's church. Evaluation prior to repairs necessitated by a ram-raid revealed a hearth and floor layers probably associated with the *c.*1520 hall, an 18th-century courtyard built over in the mid 19th century, and a mid 19th-century tiled-floor forming part of an extension to the rear of the property.

Archive: C.M.
O.A.S.I.S ref: colchest3-315164
C.A.T. Report: 1265

Elmstead Market, land w/o Church Road, CO7 7AW (TM 06176 25053)
Nigel Rayner, Sarah Carter, Ben Holloway, Adam Tuffey, Alec Wade, Elliott Hicks, Laura Pooley, Stephen Benfield, Adam Wightman
In an area with a strong presence of cropmarks, evaluation (twenty-four trenches) revealed seven ditches (two modern, one Roman or medieval, four undated), and an undated ditch/pit.

Archive: C.M.
O.A.S.I.S ref: colchest3-292135
C.A.T. Report: 1214

Elmstead Market, land adjacent to Market Field School, School Road, CO7 7ET (TM 06357 24227)
Nigel Rayner, Adam Tuffey, Robin Mathieson, Sarah Carter, Elliott Hicks
There are cropmarks over the eastern half of the site. Although the intention was to investigate these, no corresponding features were uncovered by evaluation (thirty-three trenches in advance of residential development). Rather, excavations found a possible Roman quarry pit, a post-medieval pit, and two post-medieval field boundary ditches.

Archive: C.M.
O.A.S.I.S ref: colchest3-321724
C.A.T. Report: 1320

Elmstead Market, former Elmstead Delivery Office, Clacton Road, CO7 7AB (TM 06280 24473)
Mark Baister, Sarah Carter, Elliot Hicks, Robin Mathieson, Nick Pryke, Adam Tuffey, Stephen Benfield, Laura Pooley, Emma Holloway
The site is in the historic core of Elmstead Market, and south of a Roman road, and in an area of cropmarks. Evaluation (two trenches) prior to residential development revealed features and building remains dating from the late 17th to the early 20th century. This included brick foundations and floors, a possible gravel surface and several pits and ditches. These remains suggest occupation on this site from the late post-medieval period onwards.

Later excavation revealed features and building remains of the 17th to the late 20th centuries, associated with the delivery office. These included the wall of the former delivery office, and two outbuildings, one of which was possibly a late 18th- to early 19th-century scullery. There was no evidence of any features or finds pre-dating the 17th century, aside from a single sherd of residual medieval pottery.

Archive: C.M.
O.A.S.I.S refs: colchest3-316781, 326097
C.A.T. Reports: 1285, 1334

Fordham, Mill House, Mill Road, CO6 3NN (TL 9278 2720)
Adam Wightman, Elliott Hicks, Sarah Carter
This is the site of an 18th-century corn mill, and possibly a mill site mentioned in Domesday. Monitoring recorded a wall foundation and remnants of a brick floor or interior wall, belonging to the 18th-century corn mill.

Archive: C.M.
O.A.S.I.S ref: colchest3-282396
C.A.T. Report: 1224

Frating, Lufkins Farm, Great Bentley Road, CO7 7HN (TM 0975 2215)
Mark Baister, Sarah Carter, Ziya Eksen, Harvey Furniss, Gareth Morgan, Nigel Rayner, Jane Roberts, Alec Wade, Laura Pooley, Stephen Benfield, Julie Curl, Lisa Gray, Emma Holloway
The site is adjacent to cropmark of a ring-ditch, a rectangular enclosure, and a double-ditched trackway projected to cross the site. Archaeological evaluation in 2007 produced features ranging in date from the Neolithic to the Roman period.

Evaluation and excavation (2016–17) in advance of the construction of an agricultural reservoir revealed fifty-one prehistoric features, consisting of thirty-three pits, sixteen tree-throws, one pit/ditch terminal and one ditch/tree-throw. Seventeen dated to the Early Neolithic, four to the Middle Neolithic, one to the Early to Middle Neolithic, four to the Late Neolithic/Early Bronze Age and two to the Late Bronze Age or Iron Age. The other features were undated.

Most prehistoric features contained potsherds and/or pieces of worked flint, and a small number contained undated finds (like heat altered stone and fired clay) that are probably of prehistoric date. Such material represents a range of daily activities including cooking and flint-working, which is evidence of repeated and persistent, although not necessarily continuous, occupation of the site throughout the Neolithic period, possibly continuing into the Bronze and Iron Ages.

Roman activity dates from the 1st to 2nd century, possibly into the 3rd century. Ditches divided the landscape into a series of fields and paddocks with a large trackway/droveway running through the centre of the site. Sparse finds evidence suggests a largely agricultural landscape on the periphery of an area of low status occupation, possibly a small farmstead.

Archive: C.M.
O.A.S.I.S ref: colchest3-259866
C.A.T. Report: 1303

Great Bromley, land at Badley Hall Farm, Badley Hall Road, CO7 7TJ (TM 08480 25897)
Elliott Hicks, Stephen Benfield, Laura Pooley, Ben Holloway, Sarah Carter, Adam Tuffey
Evaluation (eleven trial-trenches) in advance of the construction of twenty-four new dwellings, overflow parking for the church and school, uncovered a medieval ditch, a medieval/post-medieval pit, and a modern pit. Fragments of late 13th- or 14th-century decorated floor tiles indicate that a high-status dwelling or religious building stood nearby.

Archive: C.M.
O.A.S.I.S ref: colchest3-300926
C.A.T. Report: 1212

Great Chesterford, land west of Granta Cottages, Newmarket Road, CB10 1NS (TL 50381 42775)
Mark Baister, Adam Tuffey, Sarah Carter
The site lies on the southern edge of the Scheduled 4th-century Roman town. The Roman town wall is particularly elusive along its southern side (the Newmarket Road frontage). Foundations, presumably of the town wall, were seen to the east of the present site by Essex County Council's Field Archaeology Unit in 2014, and a robber trench (tentatively of the town wall) was seen immediately north of the present site. On the evidence of the two above observations, the wall should have clipped the northern edge of the present site, but was not seen. Its absence here means that the proposed alignment of the wall may need to be reconsidered.

Archive: S.W.M.
O.A.S.I.S ref: colchest3-290048
C.A.T. Report: 1292

Great Horkesley, Lodge Farm, Boxted Road, CO6 4AP (TL 98268 31378)
Ben Holloway, Adam Tuffey, Nicholas Pryke, Alec Wade, Sarah Carter, Elliott Hicks, Laura Pooley, Matthew Loughton, Lisa Gray, Emma Holloway
The site is in an area of cropmarks. Following an evaluation in May 2018 by Britannia Archaeology, an excavation in advance of an agricultural development revealed activity from the Late Bronze Age/Early Iron Age to the 19th/20th century. Of principal interest are forty-two charcoal-rich pits ranging in date from the Early Iron Age to the post-medieval/modern. A charred grain from one of the pits produced a radiocarbon date (95.4% accuracy) of 380–204 calBC—the Middle Iron Age. These charcoal-rich pits are probably associated with charcoal production, and are similar to those identified 2km to the southeast at Colchester Northern Gateway. Other remains include a Late Bronze Age/Early Iron Age pit, an Early Iron Age pit, a late medieval pit, and two medieval or post-medieval ditches.

This discovery prompted a review of other archaeological site work in the northern Colchester area, resulting in the identification of a further 77 charcoal-rich pits from previous archaeological investigations. They indicate that charcoal production was occurring over a broad area in northern Colchester from at least the Early Iron Age through to the medieval period.

Archive: C.M.
O.A.S.I.S ref: colchest3-326660
C.A.T. Report: 1337

Harlow, 28-32 Mulberry Green, CM17 0ET (TL 47828 11473)
Ben Holloway, Elliott Hicks, Stephen Benfield
The site is in Mulberry Green, an area of medieval and post-medieval settlement. Evaluation (six trial-trenches) in advance of residential development revealed a modern ditch, a possible post-Roman ditch, and a Bronze Age/Early Iron Age gully.

Archive: H.M.
O.A.S.I.S ref: colchest3-318874
C.A.T. Report: 1287

Harwich, former Delfords Factory, 606 Main Road, CO12 4LP (TM 23690 31100)
Laura Pooley, Stephen Benfield, Lisa Gray, Matthew Loughton, Alec Wade, Ben Holloway, Emma Holloway, Ziya Eksen, Harvey Furniss, Gareth Morgan
Archaeological evaluation (nine trial-trenches), area excavation and monitoring in advance of and during the construction of sixty-six new dwellings revealed Early Iron Age pits and ditches, a Romano-British rectilinear field-system, medieval field boundaries, an 18th-century pit and modern features.

Archive: C.M.
O.A.S.I.S ref: colchest3-280805
C.A.T. Report: 1185

Jaywick, Lotus Way and Tamarisk Way, CO15 2HZ (TM 14718 12918)
Adam Wightman, Adam Tuffey, Sarah Carter, Elliott Hicks, Emma Holloway. Geoarchaeological work by Peter Allen, David Bridgland and Andrew Haggart
The EHER shows that the proposed development lies within a region of very high potential for both Palaeolithic and early prehistoric archaeological remains. The site also contains the remains of a former sea wall which must predate the OS 1st edition of *c.*1870 and may be of medieval origin.

Archaeological (trial-trenching) and geoarchaeological (test-pitting) evaluation uncovered an infilled drainage ditch associated with the sea wall. The geoarchaeological investigation determined that the site does not lie on the mapped footprint of the Clacton Channel interglacial deposits, contrary to previous belief.

Archive: C.M.
O.A.S.I.S ref: colchest3-299230
C.A.T. Report: 1217

Langenhoe, Fingringhoe Ranges, Lodge Lane, CO5 7LX (TM 03143 17124)
Nigel Rayner, Alec Wade, Adam Tuffey, Robin Mathieson, Sarah Carter, Elliott Hicks, Laura Pooley, Lisa Gray, Matthew Loughton, Adam Wightman, Emma Holloway
Evaluation (twenty-two trenches) in advance of the construction of two new firing ranges, flood-mitigation swales

and three attenuation ponds revealed significant contexts, the earliest being three Bronze Age features. There were also a few prehistoric sherds, worked flints and burnt flint residual in later contexts. These features and finds appear are isolated, possibly suggesting small-scale exploitation of the marshland in the Bronze Age.

One of the most significant features was a Late Iron Age/ Romano-British 'Red Hill'. Although five Red Hills are known in the immediate vicinity, this one was not known. Modern use of the firing range has damaged the Red Hill, although the remains of at least one hearth were present. A significant concentration of Romano-British ditches, pits and post-holes, with finds including potsherds, ceramic building material, animal bone, coins, iron bolt-heads and other small finds indicate Roman-period settlement or occupation in the north-western corner of the site, probably associated with the red hills. This occupation spans the mid-1st to late 2nd/early 3rd century, possibly originating in the Late Iron Age. None of the pottery needs date to later than the mid-3rd century, but two coins of mid-3rd to early 4th and 4th century indicate later activity. The pottery evidence also suggests the presence of a relatively wealthy site with a number of ceramic imports and fine ware beakers. Other significant finds included five Roman coins and the iron remains of three weapons. The mid-1st-century iron bolt heads and spearhead could indicate that the Roman army was active in the area, perhaps associated with the Early Roman harbour and possible military supply base at Fingringhoe 3km to the northwest, or they could simply indicate hunting. Two medieval pits indicate small-scale exploitation of the marshland in this period.

Archive: C.M.
O.A.S.I.S ref: colchest3-319850
C.A.T. Report: 1299

Little Hallingbury, Wallbury Lodge, Dell Lane, CM22 7SQ (TL 49184 17999)

Adam Wightman, Elliott Hicks, Nicholas Pryke, Alec Wade, Laura Pooley, Howard Brooks, Lisa Gray

The site is within the Scheduled Wallbury Camp (National Heritage List No. 1002190), an Iron Age 'hillfort' on the Essex/Hertfordshire border. The pear-shaped fort has a double rampart enclosing an area of 31 acres (12.5 ha). Evaluation (one trial-trench) in advance of the construction of a new driveway revealed a small number of residual Mesolithic or Early Neolithic, and Bronze Age or Iron Age worked flints, and a Late Iron Age ditch probably associated with the hillfort. There were also Roman finds, and eleven features showing extensive domestic use of the site in the 12th to 13th centuries.

Archive: S.W.M.
O.A.S.I.S ref: colchest3-319062
C.A.T. Report: 1310

Stanway, land at Warren Lane, Colchester, CO3 0NW (TL 9469 2221)

Elliott Hicks, Stephen Benfield, Lisa Gray, Chris Lister, Emma Holloway, Nigel Rayner, Robin Mathieson, Alec Wade, Adam Tuffey

The site is in an area of archaeological sensitivity defined by its location on the edge of the Late Iron Age oppidum of *Camulodunum*, and its proximity to the Colchester Dykes (1.1km east), the Iron Age and Roman farmstead at Abbotstone (770m NW), the Middle Iron Age enclosures at Fiveways Fruit Farm (1.4km north-east), and the elite Late Iron Age Stanway burial complex (500m to the north-west). It is also in an area of significant Middle Iron Age, Late Iron Age and Roman cropmarks.

An archaeological evaluation (eleven trenches) in advance of the construction of a new agricultural buildings revealed a number of archaeological features. However, the paucity of finds makes firm dating rather difficult. Those features which could be tentatively dated were a Bronze Age pit, an Iron Age ditch, two Roman ditches and a Roman pit. Undated features included five ditches, six pits, a post-hole, a ditch/pit, and five tree-throws. The Roman ditches are aligned with cropmarks extending across the eastern side of the site.

Archive: C.M.
O.A.S.I.S ref: colchest3-318289
C.A.T. Report: 1289

Tiptree, 84 Maldon Road, CO5 0BW (TL 8915 1590)

Nigel Rayner, Alec Wade, Sarah Carter, Robin Mathieson, Elliott Hicks

The site is in the grounds of the now-demolished 17th-century Brook House, and near to a complex of medieval and post-medieval cropmarks. Evaluation (four trial-trenches) in advance of the construction of seven new dwellings uncovered ditches and pits dating to the 17th, 18th and 19th centuries, and two post-medieval brick structures, possibly drains. The latter features are almost certainly related to Brook House, whilst the former may possibly be associated with the local cropmarks. Kiln waste material from a number of features is also indicative of local post-medieval brick and tile manufacture. Later monitoring and excavation during groundworks for a service trench along a new access road revealed three post-medieval/modern features (a post-medieval pit, a brick foundation which formed part of Brook House, and a 19th- or early 20th-century ditch).

Archive: C.M.
O.A.S.I.S refs: colchest3-303765, 322751
C.A.T. Report: 1227

Tolleshunt D'Arcy, St Nicholas Church, CM9 8TS (TL 92822 11698)

Mark Baister

The church is Grade I Listed, constructed in the late 14th and early 15th centuries. Monitoring during the lowering of the floor of the late 15th-century chapel revealed several brick pads, and three partially surviving courses of brick, two of which were supported on concrete slabs. These bricks were all re-used unfrogged and unmortared red bricks (probably pavers) supported the old floor of the chapel prior to its removal (probably in the mid- to late-20th century). These brick courses and concrete slabs took up most of the west and centre of the chapel, and were at a depth of 300–350mm below the old floor level.

On the eastern side of the chapel the ground-level was higher, and there was only a 220–260mm cavity beneath

the old floor. As a result of this, in the north- and south-east corners of the chapel a compacted layer of lime mortar survived. This is probably original to the chapel (*i.e.* late 15th century) and would have supported the first, probably tiled, floor. Between the brick pads and the lime mortar was a layer containing a clay pipe fragment (not kept) probably the result of post-medieval floor alterations.

C.A.T. Report: 1302

Walton-on-the-Naze, former Martello Caravan Park, Kirby Road, CO14 8QP (TM 2501 2188)
Nigel Rayner, Sarah Carter, Ziya Eksen, Harvey Furniss, Robin Mathieson, Alec Wade, Laura Pooley, Stephen Benfield, Elliott Hicks, Julie Curl, Lisa Gray, Ben Holloway, Emma Holloway
Archaeological evaluation (four trial-trenches) followed by an area excavation on the site of the proposed M&S Food Hall revealed prehistoric activity dating from the Neolithic to the Late Bronze Age/Early Iron Age. This consisted of three ditches, three pits, a ditch/pit and a cremation burial. The cremation burial contained the remains of an adult, over 25 years old. Radiocarbon dating on a sample of cremated bone produced a 2-sigma calibrated date (at 95.4% confidence) of 1190 to 996 BC for this burial. An erosion hollow, probably used as a watering-hole or as a stock-holding pen, and two associated drainage ditches are probably of a Roman date. A small pit was also either of a Roman or later date.

A separate evaluation (three trenches) in advance of residential development revealed a Late Bronze Age or Early Iron Age ditch, and three prehistoric features (two post-holes and a pit).

Archive: C.M.
O.A.S.I.S refs: colchest3-296526, 297983
C.A.T. Report: 1226, 1246

COTSWOLD ARCHAEOLOGY
Compiled by Jessica Cook

Steeple View, Dunton Road, Basildon (TQ 67575 90331)
Emily Troake
An evaluation did not identify any deposits or features of archaeological significance.

Archive: S.M.
Report: C.A. Report 18447

Merrymeade Coach House & Cottages, Brentwood (TQ 59960 94344)
Hannah Shaw
An historic building assessment of the Arts and Crafts movement Merrymeade Coach House and Cottages, constructed *c.*1912, identified that much of the detailed and decorative high-quality exteriors of the buildings remain unchanged, with the exception of a number of later 20th-century windows and door openings of the coach house. The cottages were likely to have originally formed a single domestic dwelling before being converted into two cottages. Although known as the Coach House/Stables, it is probable that the building may have been used as a garage for motor cars and was designed to replicate a coach house to form part of the designed grounds associated with Merrymeade House.

Archive: Ch.E.M.
Report: C.A. Report 18141

Land east of Halstead Road, Kirby Cross (TM 22314 21126)
Christopher Leonard
An evaluation identified a late prehistoric ditch, medieval ditches and pits associated with agricultural activity, and post-medieval field boundaries. An undated cremation grave and several undated pits were also recorded.

Archive: C.M.
Report: C.A. Report 18008

Land east of Bromley Road, Lawford (TM 09524 30715)
Anna Moosbauer
An excavation identified mid to Late Iron Age agricultural enclosures, pits and field boundaries, as well as a possible trackway and a partial ring-ditch.

Archive: C.M.
Report: C.A. Report 18375

Stane Park II, Essex Yeomanry Way, Stanway (TL 94592 24919 and TL 94573 24925)
Ralph Brown and Joe Whelan
Evaluation identified a post-medieval field system and undated agricultural features including ditches, a gully and a pit.

Archive: C.M.
Report: C.A. Report 18742

MUSEUM OF LONDON ARCHAEOLOGY
Compiled by Karen Thomas

Barking and Dagenham

Fresh Wharf Estate, Fresh Wharf Road, Barking, Essex IG11 7BP (TQ 43929 83514)
Phil Stastney, Tim Spenbrooke, Antonietta Lerz, Tony Mackinder
The site is situated on the western bank of the River Roding, a tidal tributary of the Thames. A geoarchaeological borehole evaluation in January revealed underlying deposits consisting of undulating Pleistocene floodplain gravels lying at around -1.46m OD at the lowest point although up to around 1m above OD in the north of the site. The gravels are covered by a layer of Holocene floodplain deposits consisting of a lower and upper alluvium sandwiching a layer of peat in places. Unfortunately, these deposits were not excavated to any significant depth during the subsequent evaluation in June as much of this site is potentially contaminated with hydrocarbons.

Although the site yielded little in the way of significant stratified finds, a worked stone retrieved from a site-wide overlying mixed dump is potentially part of the original fabric

of medieval Barking Abbey, which lies *c.* 400m to the north-east of the site.

To the north, the watching brief in October and November found three parallel rows of timber piles cutting the water-lain deposits. These were probably to consolidate the ground for a 19th-century building; possibly one of those shown on the 1862 OS map. In places there were up to 2.0m of 19th-20th-century made ground that was a mix of dumped chalk and industrial deposits. Three barrels filled with pitch may relate to a 19th-century ship building yard on the site.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: 308882, 328301, 334629
Site Code: FWE18

Site of the former Short Blue, Bastable Avenue, Essex IG11 0QG (TQ 46214 83166)

Graham Spurr.

Two boreholes were drilled on the site of the former public house in February. Undulating Pleistocene floodplain gravels were covered by a 4m Holocene sequence consisting of silt and clay alluvium sandwiching peat deposits. The surface of the gravels equates with a Mesolithic land surface while the alluvium represents the Neolithic increase in river levels associated with rising sea levels. The peat deposits probably relate to a hiatus or reduction in river levels which allowed wooded wetland to form before being inundated by further rises. The site would have gradually become intertidal salt marsh and, eventually, wet meadowland. Modern made ground sealed the earlier material.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: 310383
Site Code: BBE18

Newham

Jenkins Lane, Beckton Gateway IG11 0AD (TQ 44053 82985)

Graham Spurr

The site consisted of two areas designated 'Phase 2' and 'Phase 3'. The former was located in the east of the site between Link Road and Jenkins Lane while the latter lay west of this between Link Road and the A406. Two boreholes were drilled in the Phase 2 area and three in Phase 3 and the results used to model the underlying deposits. The site is situated at the mouth of the River Roding where it would have entered the floodplain of the River Thames in prehistory. The boreholes revealed natural London Clay overlain by undulating Pleistocene floodplain gravels lying between -1m OD and -2m OD in both areas, rising slightly in the area between them. These deposits probably represent a Mesolithic surface with the raised area being a possible channel bar which remained high and dry until river levels rose in the Neolithic. The gravels were found to be covered by a layer of Holocene floodplain deposits consisting predominantly of silt and clay alluvium, in places overlying thin peat or organic layers. This is consistent with models for the Holocene alluviation of the lower Thames floodplain and suggests that the bulk of the site was inundated by the late Neolithic or Bronze Age. A thick deposit of modern made ground completed the sequence.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: 308355
Site Code: JKL18

Marshgate Business Centre, 10-12 Marshgate Lane, Stratford, London E15 2NH, (TQ 38096 83451)

Lara Band, Brigid Geist, Matt Rider, and Paul McGarrity

Ahead of demolition and redevelopment of the site, a Level 1–3 building survey took place during October and November to record the light industrial/general industrial units and office space as well as a cobbled section of driveway located on the south boundary of the Marshgate Business Centre. Most of the buildings were vacant at the time of the survey and ranged in date from the late 19th to the mid-20th century. Between 1869 and 1896 the site was partially occupied by City Mills Chemical Works, Marshgate Lane Chemical Works and the Glue Manufactory. During the post war period the site was redeveloped and occupied by the London Hospital Ligature Department, the glue works and Grove Glassworks. By the 1960s, the glassworks had expanded and occupied most of the site, along with the former London Hospital buildings which had become a plastics factory by 1969. Some of the glassworks buildings remained in use into the 21st century. By this time most of the earlier buildings had been demolished or replaced with 20th-century buildings.

The northern boundary wall of the site was a representative example of late 19th-century construction and had no exceptional characteristics. Buildings fronting onto Marshgate Lane date from the early to mid-20th century, although they are likely to have been significantly altered, with changes to the fenestration easily observable. The building facades are a combination of yellow London stock brick with red bull nosed brick detail and red tile drip courses. These buildings appear to have been constructed upon earlier late 19th-century building footprints and are typically industrial in character. The buildings along the northern border of the site are a combination of late 19th-century brick and steel construction and modern steel framed industrial units. As with the Marshgate Lane buildings, the earlier buildings have been significantly altered over time and in some cases demolished. The industrial units in the southern area of the site are of late 19th-century brick and 20th-century (1930s) construction. The cobbled surface in the southwest area of the site is believed to have been put down in the 1930s when the watercourses in and around the site were redirected.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: Forthcoming
Site Code: MGG18

Waltham Forest

Walthamstow Wetlands, 2 Forest Road, London, N17 9NH (TQ 35021 89308)

Phil Stastney, Lesley Dunwoodie

A geo-archaeological watching brief was carried out in July on geotechnical works consisting of one cable percussion borehole and two test pits. The sequence at the site consists of Devensian Lee Valley Gravels overlain by Holocene alluvium

and modern made ground. No archaeological remains were noted.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: Forthcoming
Site Code: ORE18

Essex

Tilbury Fort, Tilbury, Essex RM18 7NR (TQ 65117 75239)

David Taylor, Graham Spurr, Tony Mackinder, Paul Thrale.

The site comprises a stretch of the Thames shoreline in Thurrock Essex, the western part of which lies within the Scheduled Tilbury Fort (National Heritage List No. 1021092). Two watching briefs and a geoarchaeological evaluation were carried out between October 2018 and March 2019. The earliest deposits observed were Cretaceous chalk formations. This was overlain by Pleistocene river terrace gravels, belonging to the Shepperton Gravel formation. The earliest deposits of archaeological interest were early to mid-Holocene alluvium, within which a small discontinuous band of peat was observed which is likely to be Tilbury (II) peat and therefore probably represents a Mesolithic fenland environment, possibly at the edge of a channel. Overlying the early Holocene alluvium was an organic band that is likely to represent the Tibury (III) peat which has previously been dated to the Neolithic/Bronze Age. This was overlain by historic alluvium that would have formed when sea levels rose from the Late Bronze Age onwards. This in turn was overlain by made ground representing flood defences.

Archive: Currently with M.o.L.A.
O.A.S.I.S. Ref: 348812
Site Code: THTF18

OXFORD ARCHAEOLOGY EAST
Compiled by Katherine Hamilton

Burnham-on-Crouch, Land off Maldon Road, TQ 93762 96641

T. Collie

Evaluation was undertaken at land off Maldon Road (B1010), Burnham-on-Crouch, Essex. Three zones of archaeology were revealed, the first of post-medieval/modern remains to the north of the site. The second and third, situated in the middle and south of the site respectively, contained archaeology from the Late Bronze Age. The presence of briquetage in some of the features is possibly indicative of nearby salt production. A phase of geoarchaeological test pitting was also undertaken to investigate the location and composition of Pleistocene deposits. Further mitigation comprised targeted excavation, for details see 'Middle to Late Bronze Age Settlement and Saltworking at Burnham West, Burnham-on-Crouch', by Tom Collie and Rachel Clarke (this volume).

Archive: C.M.
Report: O.A.E. Report 2216

Burnham-on-Crouch, Land off Maldon Road, TQ 93762 96641

T. Collie

Following on from evaluation, further mitigation was undertaken at land off Maldon Road (B1010), Burnham-on-Crouch, Essex. The expanded excavation areas in the mitigation zone showed a continuation of the Late Bronze Age features discovered in the south of site as well as the location of Roman features that were consistent in date with finds and extant remains mentioned in the current EHER. Further archaeological features encountered included pits, ditches, cremations and a watering hole. Most significantly, extant remains of salterns and evidence directly associated with Bronze Age salt production in the form of briquetage were recovered, which places the site neatly in context with the 'Red Hills of Essex' moniker and associated archaeological sites.

Archive: C.M.
Report: O.A.E. Report 2227

Colchester, Rowhedge Road, Old Heath (TM 0200 2257 to TM 0293 2192)

S. Ladd.

Evaluation of eight trenches was undertaken in advance of an Anglian water pipeline. One trench at the northern end of the scheme encountered quarry pit features of post-medieval to 19th-century date, and a small cellar and drain associated with a building known to have stood near the site at the time. Sparse finds of prehistoric, Roman and Early Saxon date were retrieved from subsoil layers.

Archive: C.M.
Report: O.A.E. Report 2185

Harlow, Land off Gilden Way (TL 4815 1225)

R. Webb.

Excavations across five fields were carried out on land off Gilden Way, Harlow, Essex. Neolithic activity spread across the gravel ridge/terrace on the plateau at the top of the hill from east to west. At the western edge a causewayed enclosure overlooked a tributary of the River Stort and enclosed an area of pits. In contrast to other causewayed enclosures in the area, the one here contained a large quantity of pottery and flint. Also, on the gravel ridge, a possible Neolithic longhouse sat amongst groups of pits. Bronze Age activity was limited to a possible field system on the eastern edge of the development area and scattered pits.

Iron Age activity was concentrated on the gravel brow of the hill with three complete roundhouses as well as possible truncated ones, a cluster of cremations, enclosures, droveways, pens and pits.

Roman activity primarily consisted of field systems and a trackway. Two clusters of cremations were encountered, with most cremations containing vessels. In addition, a corn drier and oven/kiln were encountered to the south of the Scheduled villa (National Heritage List No. 1014738). Medieval activity included a moated enclosure with possible structures both inside and outside. Pottery dates the activity in the area of the moat to between the 12th and 13th centuries when the field belonged to Ralph, son of Ralph de Harlow. This area is situated *c*.400m from the Scheduled Harlowbury deserted medieval

village (National Heritage List No. 1002151). Post-medieval activity included fragments of furrows, field boundaries and quarrying pits.

Archive: H.M.
Report: O.A.E. Report 2205

Hullbridge, Land at Maylons Farm (TQ 807 946)

N. Cox.

Evaluation was carried out across seven fields to the north and south of Malyon's Farm. An area of Early Iron Age activity was identified in the fields north of the farm on a ridge of high ground. A smaller area of activity was identified in a field south-west of the farm, including a single cremation. After demolition works in the farmyard further trenches were excavated with a single medieval ditch being recorded.

Archive: C.M.
Report: O.A.E. Report 2179

Tilbury, Land off Churchill Road (TQ 62504 77556 to TQ 62977 77238)

L. Moan

A watching brief was undertaken along the route of a new rising main in Tilbury, Grays, Essex. No archaeological remains or artefacts were encountered during the monitoring works.

Archive: T.M.
Report: O.A.E. Report 2267

ABBREVIATIONS

A.S.E.	Archaeology South-East
Bt.M.	Braintree Museum
C.A.	Cotswold Archaeology
C.A.T.	Colchester Archaeological Trust
Ch.E.M.	Chelmsford and Essex Museum
C.M.	Colchester and Ipswich Museums
H.M.	Harlow Museum
M.o.L.A.	Museum of London Archaeology
O.A.S.I.S.	Online Access to the Index of Archaeological Investigations
O.A.E.	Oxford Archaeology East
S.M.	Southend Museum.
S.W.M.	Saffron Walden Museum

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Part of the main, archaeology in its European Context: a review of four recent books

Nigel Brown

'No man is an Island, entire of itself; every man is a part of the Continent, a part of the main; if a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor of thy friends or of thine own were…'

John Donne, Devotions upon Emergent Occasions, Meditation XVII, 1624

INTRODUCTION

This article reviews four books which consider various aspects of the prehistory of North-West Europe; the volumes reviewed are:

Development-led Archaeology in North West Europe eds Leo Webley, Marc Vander Linden, Colin Haselgrove and Richard Bradley, 2012, Oxbow Books,185pp. ISBN 978-1-84217-466-1

The Later Prehistory of North-West Europe: the Evidence of Development-led Fieldwork by Richard Bradley, Colin Haselgrove, Marc Vander Linden and Leo Webley, 2016, Oxford University Press, 456pp. ISBN 978-0-19-965977-7

Bronze Age Connections: Cultural Contact in Prehistoric Europe ed. Peter Clark, 2009, Oxbow Books 188pp. ISBN 978-1-84217-348-0

Movement, Exchange and Identity in Europe in the 2nd and 1st Millenia BC: Beyond Frontiers eds Anne Lehoërff and Marc Talon, 2017, Oxbow Books, 304pp. ISBN 978-1-78570-716-2

In effect they form two pairs, the first two are the products of a project funded by the Leverhulme Trust, and the second two are proceedings of conferences on similar themes held on either side of the channel, at Dover and Boulogne. Each pair of volumes is significant in its own right and taken together they exemplify contemporary archaeological practice and understanding in this part of Europe. Furthermore this review was prepared in late 2018 when the United Kingdom was due to leave the European Union in the spring of 2019, and considerable changes in our relationship with neighbouring countries were therefore imminent. Lastly, given that book reviews are essentially a personal appreciation, it is worth noting that as someone who has worked with colleagues from across North-West Europe both as a participant in EU Interreg-funded projects and on a consultancy basis, these volumes have a particular interest for me. Accordingly, this article concludes with a discussion of some general points.

THE LEVERHULME PROJECT VOLUMES

This pair of books, publish the results of a project on *The Prehistory of Britain and Ireland in their European Context,* funded by the Leverhulme Trust and focus on the practice of, and results arising from, development-led archaeology.

Development-Led Archaeology in Northwest Europe

The first volume considers the legal, administrative and methodological context in which development-led archaeology is carried out in North-West Europe and is essentially the proceedings of a two day seminar held at Leicester in 2009. Whilst such topics are never likely to be exciting, they are of great importance and this volume is full of interest. It provides a good easily accessible account of current practice in this part of Europe, although the pace of change has made it a little out of date in places, not least with regard to this country.

Following a Preface and Introduction, eleven chapters cover the situation in different countries; single chapters deal with the Netherlands, Denmark and Ireland, whilst Belgium, France Germany and the UK have two chapters each. A Postscript by Richard Bradley sets the volume in the wider context of the Leverhulme project which is described as '…a project studying *The prehistory of Britain and Ireland in their European context.* Its chronological focus extends from the Neolithic period to the end of the pre-Roman Iron Age and the study area runs from the Bay of Biscay to Denmark, taking in the archaeology of those parts of the European mainland within approximately 400km of the Channel or North Sea coasts.' (page 174). The Introduction provides a good overall account of the project and a summary of the main points of the volume as a whole. In general the principles that govern the organisation and practice of archaeological work across the various countries of North-West Europe are much the same, however, the practical arrangements, whilst broadly similar, are by no means the same. The chapters on the Netherlands and Denmark describe situations rather similar to that in the UK, although in Denmark planning advice on archaeological matters tends to be delivered by staff based in museums, rather than in the local planning authority itself as in this country. The two chapters on Belgium actually only deal with the northern, Flemish, part of the country. Those familiar with Belgian politics and the structure of the Belgian state, will be unsurprised that the southern area, Wallonia, organises things in a somewhat different manner as this volume notes in passing (page 3). Indeed one of the major differences revealed is between countries with centralised governments and those with more federal systems.

The UK, though not technically a federal state, has a number of different systems for dealing with archaeology in the planning process. In Northern Ireland the system more closely resembles the situation in the Republic of Ireland than in Britain. Scotland and Wales operate differing systems each diverging from the practice in England, which operates

what, has recently been described as '…the most deregulated system for archaeological practice in Europe.' (Trow and Sloane 2018, 17). Germany, with its marked federal structure, has the most decentralised system: 'It often surprises citizens of other European countries that administrative matters can be handled so differently in different parts of Germany as a result of its federal structure.' (page 108). Whilst there is considerable variation across the country, and perhaps it is in some ways a little better in the east than the west of the country (pages 101 and 108), it appears that the system for dealing with archaeology through the planning process is less effective in Germany than in most other parts of North-West Europe. That is something borne out through personal experience of working with German colleagues. A glance at the distribution map on page 125 raises a modern version of the Schleswig–Holstein question, why are there so many more sites north of the border than south? The answer seems to be that the Danish system of integrating archaeological work into the planning process is more effective than the German system, or rather, systems.

Useful and interesting though this volume is, reading it gave me a sense of *déjà vu*. Much of this ground had been covered by two Interreg projects, Planarch 1 and Planarch 2, the latter project concluding just three years before the Leicester seminar. Although the Leverhulme project had a slightly wider geographical spread, it would surely have been better had it built upon the earlier work. The only reference to the results of the Planarch projects is to the classic study of evaluation techniques, a product of Planarch 1 (Hey and Lacey 2001). Given that the Leverhulme-funded project and the Planarch projects covered so much of the same ground, that the one did not explicitly build on the other is remarkable, and a possible reason is considered in the discussion section below.

The Later Prehistory of North-West Europe: the Evidence of Development-led Fieldwork

The second volume produced by the Leverhulme project is a remarkable achievement. It presents a clearly written overview, of the prehistory of North-West Europe from 8000 BC to the first centuries BC and AD which manages to be both concise and detailed. The geographical area covered is shown on a map (fig 1.2) and comprises a core study area of Ireland, Britain, northern France, Belgium, Luxembourg, the Netherlands and North-West Germany. South-West France and the Jutland peninsula are shown as areas of additional data collection, though actually my impression is that Jutland is covered quite thoroughly.

An introductory chapter 'Setting the Scene' is followed by six chapters chronologically ordered from 'Late Foragers and First Farmers (8000–3700 BC)' to 'Total Landscapes (250 BC to the Early Roman Period)'; a final chapter considers 'The Research in Retrospect'. As can be seen from the two chapter titles quoted above the chapters cut across the divisions of the long established Three Age system. The authors state: 'The Three Age Model has outlived its usefulness, but even now it is difficult to see how it can be replaced' (page 171); in fact, they do a remarkably good job, perhaps not so much replacing, as moving beyond it. The chapters cover periods bracketed in calendar years founded on radiocarbon dating, something which it is increasingly possible to do. Though this structure takes us beyond the old Three Age system, the text makes frequent reference to the Neolithic, Bronze Age *etc.*, which allows it to relate to earlier work, without being conceptually trammelled by those terms. That is important for a number of reasons, for example in considering chapter 5 'Changes in the Pattern of Settlement (1600–1100 BC)' the authors state that it is '…an important period of change, but this would not have been apparent to the scholars who devised the Three Age Model. The most important developments between 1600 and 1100 BC were most clearly evidenced in the ancient landscape and registered to a smaller extent by the metalwork finds on which the traditional scheme depends.' (page 213). It is the scale and nature of the development led fieldwork on which this book is based which allows the focus on landscape development. The ability to move beyond the Three Age system reveals a number of significant developments, for instance in Chapter 3 'Regional Monumental Landscapes (3700–2500 BC) it is noted that '3700 BC represents a significant threshold in Britain, Ireland and Scandinavia. It was not when farming was adopted in any of these areas, but it was the time when monuments first appeared with any frequency. The forms of these structures were well established in regions with a longer history of Neolithic settlement.' (page 85).

One of the most striking of recent archaeological developments has been a kind of re-emergence of the Beaker People. Once a staple of archaeological interpretation, they were subsequently, and for several decades, largely regarded as a conceptual error, but have now been somewhat rehabilitated. This volume considers the isotope evidence but was published a little too early for the DNA work which has elucidated the complex association of distinctive Beaker pots with incomers and population movement. As this volume notes 'It is likely that settlement in the Early Bronze Age involved frequent changes of location' (page 153) Settlement evidence tends to be elusive comprising scatters of pits and postholes or spreads of artefacts, so that 'Except for those in Denmark, Early Bronze Age settlements are few and far between,…' (page 157). Denmark often seems to be the exception, its archaeology quite distinctive and often, as in the Bronze Age, connected to central and eastern Europe. One of the clearest and most interesting points elucidated by this book is that connectivity is by no means a given. During the late fourth and early third millennia BC there is little indication of contact between Britain and Ireland and continental Europe, though considerable evidence for contacts within our offshore archipelago with development of distinctive types of monument and artefacts. By contrast, at other times contacts were extensive and apparently quite intense.

THE DOVER AND BOULOGNE CONFERENCE VOLUMES

This pair of conference proceedings, both deal with an extended period when contacts are quite evident; basically, they are concerned with the 2nd and earlier 1st millennia BC, though some contributions range a little wider into the later 3rd and later 1st millennia.

Bronze Age Connections: Cultural Contact in Prehistoric Europe

This book is basically the proceedings of a conference held in Dover in 2006, and very much inspired by the Dover Boat. The Introduction by Peter Clark which sets the scene, is followed

by eleven papers including both general overviews and specific case studies. Needham's contribution 'Encompassing the Sea: 'maritories' and Bronze age maritime interactions' can now be seen as something of a seminal paper. The term 'maritory' has established itself in the literature, and the first few pages define its meaning which attempts to grapple with the complexity of maritime contacts. The paper sets out the theoretical framework and offers a case study around the Channel and Southern North Sea in the Early Bronze Age *c.*2000—1500 BC, well- argued and supported by many clear maps and diagrams. Readers of these Transactions may well find inspiration in the text, and particularly the maps figs 2.5, 2.6 and 2.7a, to begin to consider how our local area might have been involved. Cunliffe's overview of maritime contacts provides a useful summary of interpretations he has published more extensively elsewhere. Once again the maps provide particular food for thought, though from a parochial point of view on fig. 6.10 the northern boundary of the Highstead 2 distribution should be moved north to encompass the material from a number of sites in the Chelmer valley/Blackwater estuary river system, and the southern boundary of the West Harling/Fengate style moved south to encompass pottery from sites on the northern side of the Blackwater estuary. Similarly on fig. 6.13 the northern boundary of the Mucking-Crayford Style should be shifted north to encompass the Langenhoe site, emphasising the very coastal distribution of that decorative style. Despite the well-known difficulties of interpreting these style zones they retain some use, though they need to be viewed in the context of our more extensive and detailed knowledge of ceramic distributions.

Other contributions provide studies of the end of the use of flint tools, the location of the finds of sewn plank boats and the Canche estuary as a traditional landing place. A paper by Theunissen considers the importance of the interaction between Dutch and British archaeologists in defining a 'Hilversum Culture' and envisaging a movement of people from Britain to the Netherlands in the Bronze Age (an interpretation now abandoned). Fontijn's contribution provides a detailed reconsideration of all British imports in the Bronze Age metal finds from the Netherlands and adjacent parts of Belgium (which apparently constitute just 6% of the material from the study area), and offers a well-considered modern interpretation of their significance in the Bronze Age. A paper by Bourgeois and Talon delivers an interesting account of the evidence of cross channel interaction in Picardy and Flanders and provides a striking reminder of the stylistic similarity of later Bronze Age ceramics on either side of the channel, as well as the remarkable similarity in the site plans of the circular enclosures at Springfield Lyons and Malleville-sur-lel-Bec. Timberlake's paper is a succinct account of copper mining and metal production in Britain during the Bronze Age, which demonstrates once again that by the Late Bronze Age the metal supply was dominated by material from continental Europe concluding that the British mines lost out to '…the more abundant and guaranteed availability of European metal.' (page 118). Mary Helms offers an account of the significance of boats, boat building and long-distance travel from an anthropological perspective. The volume concludes with Fitzpatrick's account of the remarkable evidence for continental interaction and movement of people provided by the Amesbury Archer.

Movement, Exchange and Identity in Europe in the 2nd and 1st Millenia BC

This second volume of conference proceedings is the result of an event held in Boulogne, very much a companion to the Dover conference. Lehoërff's introduction considers some key themes, and sets the scene for the papers that follow. The conference resulted from an EU-funded project, 'Boat 1550', which brought together partners from Belgium, France and the UK. Published in 2017, the result of the 2016 referendum in the UK casts a bit of a shadow: 'Nothing, *a priori*, might let us suppose that around 1500 BC the stretch of water between Britain and the continent was only a place of passage between two *very similar and very close coastal worlds*. The archaeological record has imposed this reality, contrary to what was expected, *especially when considering today's difficulties.*' (page 5, my emphasis). The contributions to this volume cover similar topics to the earlier book. The geographical focus is extended, whilst the majority of the papers consider archaeological evidence from around and across the Channel/southern North Sea. One deals with the upper Rhine Valley and another with exchange and travel across the Alps. As with the earlier volume this book presents a combination of broad overviews and more detailed studies. Of the latter, the contribution by Billand, Le Goff and Talon on funerary rites during the Early and Middle Bronze Age is an interesting read and a similar study of our own local Bronze Age cremations might be worthwhile. Two short papers, one by De Mulder and Bourgeois on Siegfried De Laet, the other by Leclercq and Warmenbol on Marcel Mariën, provide interesting insights into the work of these two most prominent Belgian archaeologists of the mid-20th century, and make a significant contribution to the history of archaeology. Needham's paper is in some ways a companion piece to his article in the earlier volume exploring the nature of the connections between coastal communities; it also offers a detailed analysis of one phase of the Bronze Age, reminiscent of Fontijn's paper in the earlier volume which is indeed referenced by Needham. He also considers attitudes to seafaring in prehistory, something pursued in the context of the practicalities of sea travel and navigation in Clark's paper. In a remarkable passage about navigation in our northern seas, Clark (page 113) quotes from a 16th-century German seafarer: 'Many seamen who sail from Prussia to England and Portugal commonly ignore latitude reckoning, but also they heed neither chart nor proper compass…' *sie tragen die kunst alle im kopfe,* ''they carry their art all in their head.'''

As a specialist in prehistoric pottery it is heartening to see, in both this and the earlier volume, how central pottery studies are to our understanding of cultural interactions in the 2nd and 1st millennia BC. Indeed, I can't resist quoting the opening line of the summary of Brun's paper on *The Channel: border and link during the Bronze Age*: 'The cultural geography of the Atlantic seaboard remained elusive for a long time due to the scarcity of the pottery record'. That situation has been transformed by the results of developer-funded excavations and pottery is abundant on both sides of the Channel/southern North Sea (though ironically Brun's paper is actually more concerned with the metalwork evidence). Several of the contributions deal with pottery studies and are accompanied by numerous good illustrations, both drawings and photographs. Of particular interest is the paper by Manem on Bronze Age ceramic traditions which looks beyond broad

similarities and considers the variation in pot construction on either side of the channel. The volume as a whole provides a fascinating insight into the archaeology of both sides of the Channel/southern North Sea and indicates the possibilities offered by future work and detailed studies.

DISCUSSION

Both the volumes produced by the Leverhulme-funded project are attempts to deal with the huge upsurge in archaeological work across Europe following on from the widespread adoption of the Valetta convention; an earlier review article considered some recent, local, examples of this (Brown 2014) The increase in archaeological investigations since the 1990s is such that as one of the books reviewed here says 'Although prehistoric archaeology developed over about 150 years, most of the available material has been acquired during the last 25 years.' (Bradley *et al.* 2016, 11). That is a remarkable assertion but probably true. It can reasonably be said of archaeological work that 'During the last two decades the harvest has been augmented by a burst of activity surpassing qualitatively and quantitatively all previous efforts. Systematic excavations, conducted on an unprecedented scale and with matchless precision have brought unexpected discoveries and filled many gaps….Meanwhile material continues to accumulate, whether in museums or in excavation reports till it threatens to assume unmanageable proportions.' Whilst that quote seems to sum up our current situation, it was not in fact published recently, but just about a year after the start of the Second World War (Childe 1940, v); it seems there is much to be said for Kristiansen's notion, discussed at the start of *The Later Prehistory of North-west Europe* (pages 1–2) that archaeological research operates in a cyclical fashion.

The four books reviewed here show the dynamism of current European archaeology and the remarkable range of evidence which can now be used to address a variety of questions, some of which would hitherto have been regarded as quite intractable. The two volumes arising from the Leverhulme-funded project deal admirably with understanding the nature and importance of developer-funded archaeology. Running through both books is the need to better integrate university-based archaeologists and those carrying out fieldwork. Both succeed rather well in addressing that issue, which arose almost as soon as developer-funded fieldwork began in earnest in the early 1990s, and might be regarded as an archaeological version of the old 'two cultures' dichotomy. Whilst field archaeologists and academic archaeologists are communicating better, there is a third party which, perhaps more in this country than elsewhere in Europe, is rather overlooked, local authority archaeologists. That may be one of the reasons why the results of the Planarch projects were largely overlooked rather than built upon by the Leverhulme-funded project. The key role played by local authority archaeologists is clearly recognised *e.g.* 'Systems are therefore required to monitor planning applications and advise the local planning authorities on which developments require archaeological work. This stage of the archaeological process is always carried out by state employees attached to local government or to other locally-based bodies…' (Bradley *et al.* 2016, 27). Despite that recognition and the fact that locally-based archaeologists from continental European countries were contributors, none of the papers in the volume arising from the Leicester conference are from local authority archaeologists from the UK, nor, so far as one can tell from the preface, were they participants at the conference. That is remarkable, and one wonders whether in part it may be that others feel they thoroughly understand what they do and can speak on their behalf. Though in fairness it must be said that getting local authority-based archaeologists to participate in such events can be difficult, invitations being met with 'no time to spare' or 'too busy', not perhaps unreasonable given their declining numbers and the pressures under which they work *e.g.* Brown (2014, 198). In the worst cases some local authorities will not permit staff to attend meetings in another authority, let alone another country. Despite the difficulties it is certainly necessary to ensure that local authority archaeologists do not work in isolation. They play a key role in ensuring that development-led fieldwork is carried out to a satisfactory standard (Bradley *et al*. 2016, 329). The Leverhulme-funded volumes clearly demonstrate the need for a range of evaluation techniques to be deployed rather than the simple application of routine methodology, and in that local authority archaeologists have a vital role. It is clear that there is much to be learned from the approach to evaluation taken by our continental colleagues, a specific case being the efficacy of extensive purposive coring in examining alluvial sequences. The desirability of archaeological practice in dealing with alluvial sequences in the UK being informed by experience from continental Europe has been noted elsewhere (Brown, 2014, 196).

Reading these four books one is left with a feeling of admiration both for the skill and knowledge of all the authors and for the many success of modern archaeology. The books demonstrate beyond doubt that the archaeology of these islands cannot be properly understood outside the context of North-West Europe. The relationship is not a given, the Channel and southern North Sea are not necessarily barriers, nor are they necessarily channels for communication. Their role depends on the attitudes and practices and capabilities of societies living around them. That variability can be seen in prehistory, when at times contact between these islands and the mainland was slight, at others very considerable. The Dover and Boulogne conference volumes deal with one of those periods, the 2nd and 1st millennia BC, when for much of the period it is reasonable to speak of the 'Channel Bronze Age', 'Channel/North sea complex' or even 'the people of La Manche'. The nature and intensity of contacts provide the context which resulted in the clear stylistic similarity of pottery from around that region, and which brought a diadem from Iberia to Little Baddow (Wickenden 2018), a socketed axe from North-East Germany/North-West Poland to Braintree (O'Connor 1976; 1980,172), pottery from north-west Germany/North-East Netherlands to Ardleigh (O'Connor 1980, 281–2, 286) and from North-East France/Belgium to the Boreham Interchange (Brown 1999,16).

Speaking of interaction, it is clear that the relationships between archaeologists are central to our understanding of all this. That is quite apparent from these four volumes themselves, from the background to those studies (Bradley *et al.* 2016, 1–11) and from the biographical essays on prominent mid-20th century archaeologists from the 'low countries' mentioned above. That relationship will inevitably change with the UK's decision to leave the EU. That will of course cut off a potential avenue of funding which here in

Essex has enhanced our understanding of development-led archaeology and directly benefited our military and industrial heritage. Beyond simple funding matters, the consequences for archaeology are likely to be many and various (see for instance the debate and accompanying references in *Antiquity*; Brophy 2018a and b; Bonacchi, 2018; Gardner 2018 and Schlanger 2018). The impacts on the relationships and interactions between archaeologists are likely to be most striking. They will of course continue in one way or another, probably most strongly amongst academic archaeologists. By contrast it seems inevitable that those based in local authorities will become more (maybe that should be even more) isolated. As someone whose career has been in local authority archaeology and who has benefited from working closely with continental colleagues over the last twenty-odd years that is a worrying prospect.

Whilst our present difficulties are not to be compared with the terrifying violence that beset Europe in 1940, nonetheless having begun this discussion with one quotation from a work published in that year it feels apposite to end with another: 'The feeling of solidarity and friendship between archaeologists of many nations has truly been, in the last twenty years, among the forces making for the intellectual harmony of our civilization, and I know that will not be killed' (Hawkes 1940, v). Though 'intellectual harmony' may be challenging, and in that regard it is certainly worth looking at the *Antiquity* references cited above.

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Shorter Notes

MIDDLE TO LATE BRONZE AGE SETTLEMENT AND SALT-WORKING AT BURNHAM WEST, BURNHAM-ON-CROUCH

Tom Collie, with Rachel Clarke and illustrations by Dave Brown

Archaeological mitigation works, including seventy-five evaluation trenches, seventeen geoarchaeological test pits and a small excavation, were undertaken at Burnham West, Burnham-on-Crouch. The most significant results relate to the Middle to Late Bronze Age period and include features associated with settlement, burial and industry. In addition to numerous pits, post-holes and a large watering hole, ditched boundaries possibly forming part of a field system were identified along with several probable cremation burials, positioned overlooking the River Crouch to the south. Rare evidence of Late Bronze Age salt-working was found including a possible settling tank and a notable assemblage of briquetage and pottery. A series of Roman ditches revealed in the south-eastern part of the site probably relate to a small 1st-century farmstead previously excavated to the east.

Introduction

In May 2018, an archaeological trenching and test pit evaluation was undertaken by Oxford Archaeology East on former agricultural land to the south of Maldon Road, Burnham-on-Crouch, Essex (centred at NGR TQ 93892 96695, Fig. 1). Further mitigation work in advance of the construction of residential housing and industrial units included an excavation in the area of a proposed haul road in the southern part of the development area (Collie 2018). The site slopes from north-west (27m OD) to south-east (18m OD) and overlooks the historic marshland of the River Crouch. This part of the Dengie peninsular incorporates a fairly rich archaeological landscape, with findspots and features spanning the Palaeolithic to Roman (and later) periods.

This area is associated with the presence of Asheldham gravels, with potential for the survival of Clactonian horizons—a source of internationally important Palaeolithic material, including flint tools and extinct Pleistocene faunal remains, such as rhinoceros and lion. Although no finds of this type had previously been recorded within the development area, a scatter of early prehistoric flint tools including Palaeolithic blades and Mesolithic microliths in addition to Neolithic blades, arrowheads and scrapers, has been found to the south and west, next to the River Crouch. Because of the potential survival of these early deposits, a series of geoarchaeological test pits was excavated which all revealed Pleistocene deposits that appear to represent the western bank of a wide channel extending to the north-east. These deposits equate to Southchurch/Asheldham gravels which are classed as the highest of the 'Low Level East Essex Gravels' (Bishop and Boreham 2018, 104). Eight worked pieces of flint were recovered, which although not truly chronologically diagnostic are consistent with Palaeolithic technologies, an interpretation which is supported by their mineral staining and rolled or abraded condition. All came from coarse sands or gravels and had been residually deposited, although the lack of any intensive rolling would suggest possibly they came from not far away. A possible palaeochannel on a south-east to north-east alignment was also identified by geophysical (magnetometer) survey (Vickers 2017) towards the southern part of the site (Fig. 1). Part of this wide feature was exposed and found to be filled with coarse sands and gravels similar to the surrounding natural deposits.

Bronze Age Settlement And Salt-Working

The most significant remains revealed by the fieldwork relate to later Bronze Age activity, largely focused within the southern part of the site; below the 18m contour and closest to the River Crouch and its associated saltmarsh. A series of five small possible cremation burials was clustered between two (undated) ditches at the western extent of the mitigation area, seemingly within the former palaeochannel (Fig. 2a). A further two apparently isolated cremations were also found to the south-east (Fig. 2). Most of the cremations only produced a few grammes of burnt/calcined bone, although one burial (275, within the main cluster) contained 434g of bone, a sample of which returned a radiocarbon date of 1666–1526 cal BC (SUERC–80845; 3319BP±25). The low quantities of bone within the other features suggest that these may represent cremation- or pyre-related deposits rather than actual cremations burials. Where identifiable, the bone fragments were predominantly found to be the remains of adults and/or sub-adults (Dodwell 2018, 88–89).

Extending to the east of the main cluster of cremations was a scatter of pits and post-holes, several of which contained sherds of Late Bronze Age pottery alongside worked and burnt flint. Towards the western extent of this group was one of the larger pits (25), which measured 1.9m long, 1.72m wide and 0.46m deep. This produced a notable quantity of burnt flint, burnt clay fragments and large sherds of Late Bronze Age pottery (205 sherds weighing over 2kg and including several diagnostic rim sherds) from its two backfills. A cluster of thirteen pits of various size and shape lay further east, adjacent to a ditch (350) that also contained a small quantity of Late Bronze Age pottery. Another feature of note was a large amorphous watering hole (285) located to the south-east that measured nearly 10m in width, associated with which were a number of contemporary ditches that were also evident on the geophysical survey. The watering hole extended to a depth of 2.6m and contained four silty clay fills that produced burnt flint, burnt clay alongside sherds of Late Bronze Age and (predominantly) Middle Iron Age pottery, indicating that the feature became disused in the latter period.

Together, the surviving stratigraphic and artefactual remains are indicative of organised land use from the Mid-Late Bronze Age period, perhaps focused on pastoral farming, that was clearly associated with settlement. The geophysical

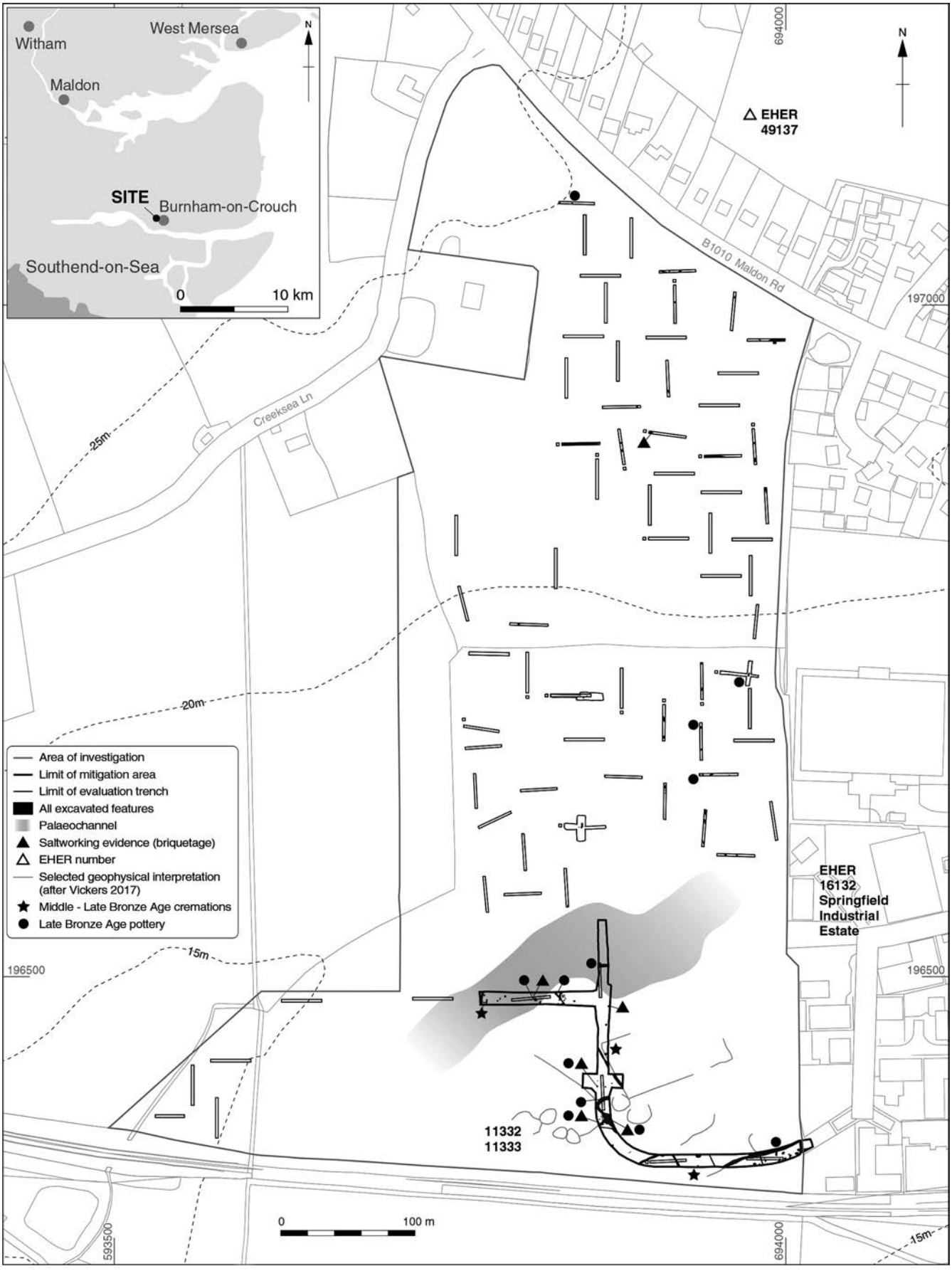

FIGURE 1: Site location

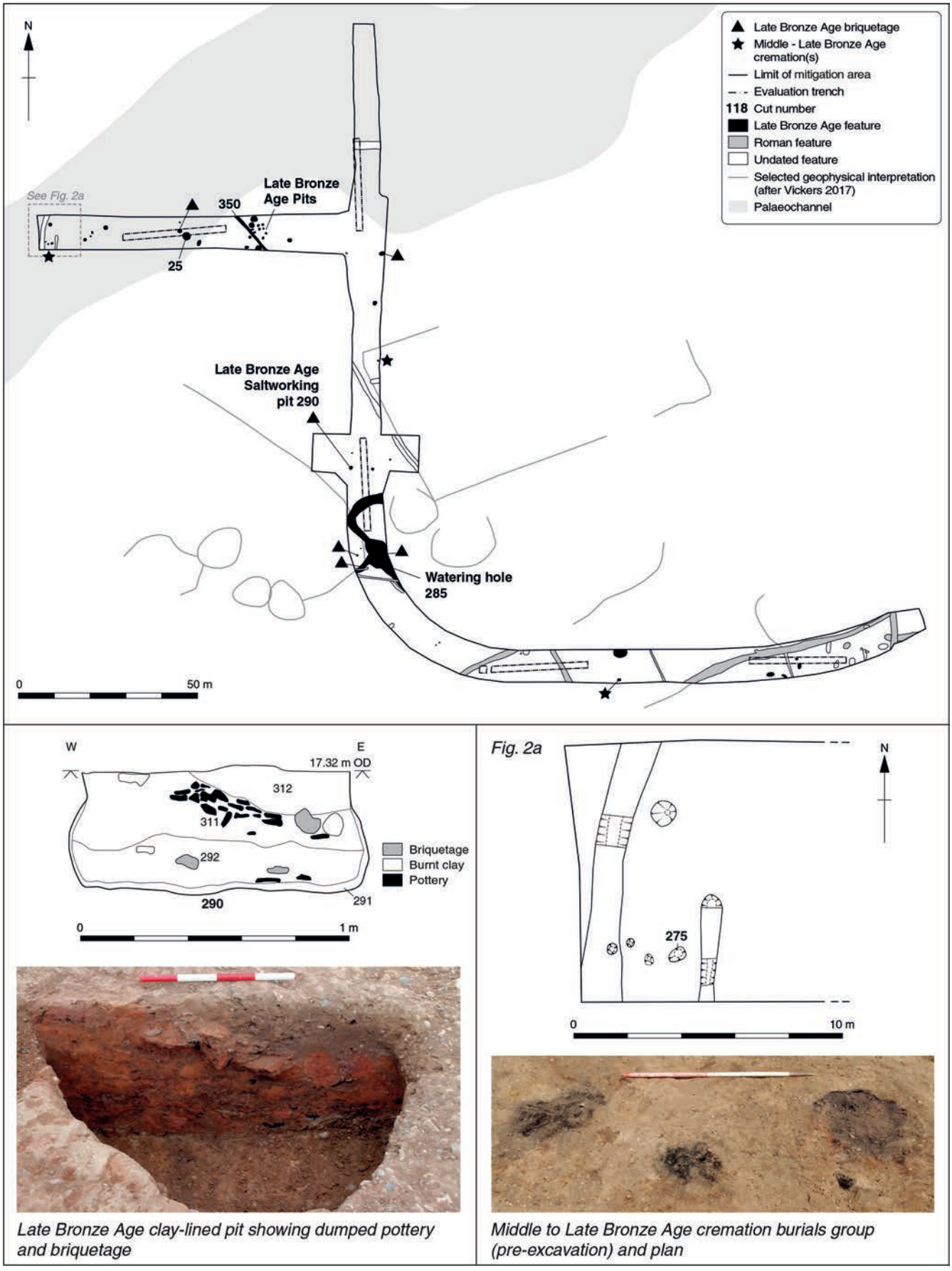

FIGURE 2: Mitigation area, with detail of Bronze Age funerary and salt-working features

survey (Fig. 2) also shows possible ring ditches that may relate to roundhouses, or perhaps ploughed out barrows given the presence of cremation burials in this area. Settlement-related activity seems to have been concentrated in the southern part of the site, although some peripheral ditches and pits were found within trenches in the eastern part and on the northern edge of the development area (Fig. 1). The latter lay close to a possible Bronze Age structure identified during previous investigations to the north of Maldon Road/B1010 (Essex Historic Environment Record (EHER) 49137; Germany 2018). Preservation of environmental evidence (plant remains, pollen and animal bone) was very poor across the site, hindering any discussion of diet or husbandry practices, or reconstruction of the contemporary landscape.

Of particular note are the features and artefacts which indicate that salt-working was being undertaken on or near the site during the Late Bronze Age. Large quantities of briquetage (822 fragments, 10,315g) directly linked to salt production were found alongside Late Bronze Age pottery, particularly in association with pits 290 and 25 in the mitigation area (Fig. 2). Sub-circular pit 290 is of significance as, although it was small at just 1m wide and 0.46m deep, it was lined with blue clay which combined with the absence of *in-situ* burning indicates that it may have been a small settling tank. It contained three backfills which produced the vast majority of briquetage from the site. This material was found alongside Late Bronze Age pottery that appeared very badly made, with some sherds still fused to large fragments of burnt clay. These items appeared to have been dumped into the pit and possibly stamped down into the base. Further fragments of briquetage were found in pits and the watering hole to the south-east of this pit, but in much smaller quantities.

A full briquetage assemblage would normally comprise containers (pans/troughs), supports (pedestals), *ad hoc* clips and spacers and oven/hearth lining (Lane and Morris 2001, 8). Although no complete forms were apparent in this assemblage, container and support fragments were predominant with a minor fraction of hearth lining recorded. The significance of this assemblage lies in its Bronze Age date, as saltern sites and briquetage assemblages dating to this period are rare on a national scale (Lane and Morris 2001, 8; Historic England 2018, 5) and examples in Essex appear to be rarer still, presumably due to the erosion of the marshland coastline (Wilkinson and Murphy 1995, 1). However, evidence for Middle-Late Bronze Age (1412–1130 BC) salt manufacture has been found at South Woodham Ferrers, a few kilometres to the west of the site and also overlooking the River Crouch (Historic England 2018, 5).

The salt marshes along the Essex coast and estuaries have been important areas for salt-making for millennia, and are characterised by the numerous 'red hills' evident here. These red hills—many of which are Iron Age to Roman in date—were mounds formed from industrial waste, including coarse pottery fragments, ash and soil reddened by fires used to evaporate sea water (brine) to produce salt (Fawn 1990). Some red hills have been found up to 5km inland from shore; the closest example to the current site is recorded on the northern bank of the River Crouch just to the south of the subject site (EHER 11282; not illustrated). Given the distance of the site from the Crouch estuary, it is probable that tidal creeks once extended into this area, giving the Bronze Age community access to the brine-rich sea water during high tides. With the invention of the open-pan system, where wide shallow flat based vessels were utilised, salt-making became prolific in the century prior to the Roman invasion and the red hills of Essex are a reflection of this. Clearly the assemblage from Burnham West forms part of a small but significant body of Bronze Age salt-making sites, and suggests that similar evidence may survive in the vicinity (Levermore 2018, 69).

Roman And Later Land-Use

Elements of a Roman (and possibly earlier) field system and a rectangular enclosure aligned north-east to south-west, along with a scatter of pits, were present within the mitigation area (and geophysical survey) and appear to have been laid out with respect to the palaeochannels described above. These presumably represent the continuation of Iron Age and Roman settlement-related features and burials excavated nearby to the south in the 1970s (EHER 11332 and 11333, Fig. 1). A Roman farmstead of 1st-century date is known to have been located to the east of the site, now covered by the Springfield Industrial Estate (EHER 16132); pottery of contemporary date was recovered from one of the larger ditches found at the eastern end of the mitigation area.

A number of post-medieval ditches were also recorded, especially in the northern part of the site, several of which correspond to field boundaries shown on the 19th-century tithe and 1st-edition Ordnance Survey maps.

Acknowledgements

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LATE IRON AGE CERAMIC SPOUTED STRAINER BOWLS FROM HEYBRIDGE ELMS FARM

Paul R. Sealey

The ceramic spouted strainer bowls from Heybridge Elms Farm are the first such vessels published from Late Iron Age contexts in Essex. A copper-alloy vessel from Hertfordshire only a few decades earlier is the first sign of the metal prototypes that inspired them. The Hertfordshire and Elms Farm vessels suggest the spouted strainer bowl series originated in the Essex-Hertfordshire region, among communities where Roman imports encouraged novel ways of serving drinks, in this case local ale or mead flavoured with fruit or vegetable additives.

Introduction

Details are presented here of the ceramic spouted strainer bowls of Late Iron Age date or type from the excavations at Heybridge Elms Farm (Atkinson and Preston 2015a; 2015b). A note by the writer on these vessels was not included in the published report but some of his comments surfaced in a chapter dealing with perforated vessels in general (Biddulph 2015). This was unfortunate because conflating strainer bowls with other perforated pots obscured the significance of these vessels, and it is hoped this note will redress the balance.

The excavations produced thirty sherds from spouted strainer bowls weighing 568g. Nine vessels are represented. Eight have the standard local grog-tempered fabric of Late Iron Age date, Fabric GROG of the excavation report. All the illustrated sherds are in this fabric. The ninth vessel has the red-surfaced (oxidised) grog-tempered Fabric GROGRF. In Essex grog-tempered pottery first appeared *c.*75–25 BC (Sealey 2007, 27–31). At Elms Farm it dominates contexts from *c.*50–30 BC, and from *c.*25–10 BC it had displaced earlier pottery of Middle Iron Age type. Although thought of as typically Late Iron Age, grog-tempered wares remained current for some decades after the Roman invasion (Biddulph *et al.* 2015).

There are two basic forms of Late Iron Age ceramic spouted strainer: a rounded bowl represented by context 15971 (Fig.1, Nos 1a–c) and a carinated form represented by context 4916 (Fig.1, No.3). They are the antecedents of the developed Roman forms *Cam.*322 and 323 respectively (Hull 1963, fig.105, 187). The carinated bowls at Elms Farm have one or two horizontal grooves along the carination, otherwise they are undecorated and plain. Rims are everted or upright. Throw marks on the larger bowl sherds show they were made on the wheel, but the spouts are hand-made and asymmetrical. The strainer panels were luted onto their bowls when the fabric was leather hard; holes on the interiors of bowls around the spout opposite the panels show the perforations were made when the strainer panel was in place. In some cases it is clear that a tapered (pointed) instrument such as a sharpened twig had been used to make the holes because the perforations are slightly wider where the tool entered the strainer panel. Perforation size is typically about 2.5mm across but can be as much as 4mm. Apart from a suggestion of concentric ovals on the bowl from context 15971, no attempt had been made to create patterns with the perforations.

Chronology

Dates of contexts with spouted strainer bowls are given in Table 1. Site chronology was based on the ceramic phases, and in two instances (Contexts 8271 and 9418) it proved possible in the excavation report to offer a narrower date for the context than its ceramic phase date.

Context	Feature	Context Date
4027	Pit 4026	15 BC–AD 20
4916	Slot 4928	unstratified
7576	Pit 7575	AD 80–170
8271	Pit 8282	AD 5–20
9048	Pit 9034	15 BC–AD 20
9418	Pit 9351	AD 1–10
15971	Pit 15968	AD 20–55
17140	Well 17155	50 BC–AD 20
18174	Slot 18175	AD 20–55
20331	Layer	AD 20–55

TABLE 1: Dates for Contexts with Ceramic Spouted Strainer Bowls

Function

Analysis of residues in a copper-alloy spouted strainer bowl from a *c.*AD 40–50 grave at Colchester Stanway shows the beverage had been a medicinal drink prepared from artemisia, flavoured with honey to make it palatable (Wiltshire 2007). Having said that, we should not see these vessels as exclusively medicinal (Crummy 2007, 326). There is a case to be made for them having been used in the preparation of other infused concoctions in which a local drink such as ale or mead had been flavoured with vegetable or fruit additives (Sealey 1999, 122–4).

Discussion

Spouted strainer bowls are best known from the versions in copper-alloy (Sealey 1999, 121–2; Crummy 2007, 323–5). Some of these have zoomorphic spouts which have rightly taken their place alongside other outstanding examples of Late Iron Age art (Megaw 1970, 162–3 nos 276–7, pls 276–7).

Understandable as this interest in the copper-alloy strainers might be, it has distracted attention from the ceramic copies that ran alongside the copper-alloy versions. In fact, the Heybridge ceramic spouted strainer bowls are the first published examples from Iron Age contexts in Essex; and indeed only one other pottery strainer of this kind has been reported from a pre-conquest context, a carinated vessel

from *Verulamium* (Hertfordshire) dated *c*.AD 5/10–30/35 (Wheeler and Wheeler 1936, fig.22 no.2, 173). Although the terminal dates of the earliest Elms Farm contexts overlap with the date of the Verulamium pot, the likelihood is that these Essex pots are the first sign of ceramic spouted strainer bowls in the archaeological record; and it is this early date which is significant. Our very first strainer bowl is a copper-alloy vessel from the *c*.25–15 BC Welwyn Garden City grave (Hertfordshire) (Stead 1967, 23–4, pl.5, 25; Sealey 2009, 34 for the date). The presence at Elms Farm of copies in pottery not much—if at all—later than Welwyn Garden City shows that the spouted strainer bowl phenomenon developed in the Essex-Hertfordshire region, as Crummy (2007, 324) suggested. The rarity of this vessel type in Late Iron Age and conquest period contexts justifies the appendix, where the very few examples from Essex are listed.

Although the typology and function of these vessels owe nothing to the Mediterranean world, it is inescapable that they first appeared at a time when communities in Essex and Hertfordshire were importing amphora-borne wines and foodstuffs, as well as a whole range of Roman crockery. Such material is particularly well represented at Heybridge Elms Farm. Inasmuch as local spouted strainer bowls represent a new departure in how local drinks were prepared and served, such an innovation would be entirely suited to a milieu like Late Iron Age Elms Farm where a new and adventurous approach to food and drink is evident through the wealth of imported ceramics, drinks and foodstuffs.

Descriptions of Illustrated Vessels

Fig.1 Nos.1a-1c. Pit 15968 (Context 15971). AD 20–55. Spouted strainer bowl with rounded profile, upright tapered rim and burnished outer surface. The drawing shows the perforated panel behind the spout, viewed from inside the bowl. There is a colour image of this vessel on the back cover of volume 17 (2018) of the *Journal of Roman Pottery Studies*.

Fig.1 No.2. Pit 9034 (Context 9048). 15 BC–AD 20. Part of a perforated panel from a strainer bowl. At the top the sherd has become detached from the horizontal spill-plate that prevented spillage of the contents when they were decanted through the spout.

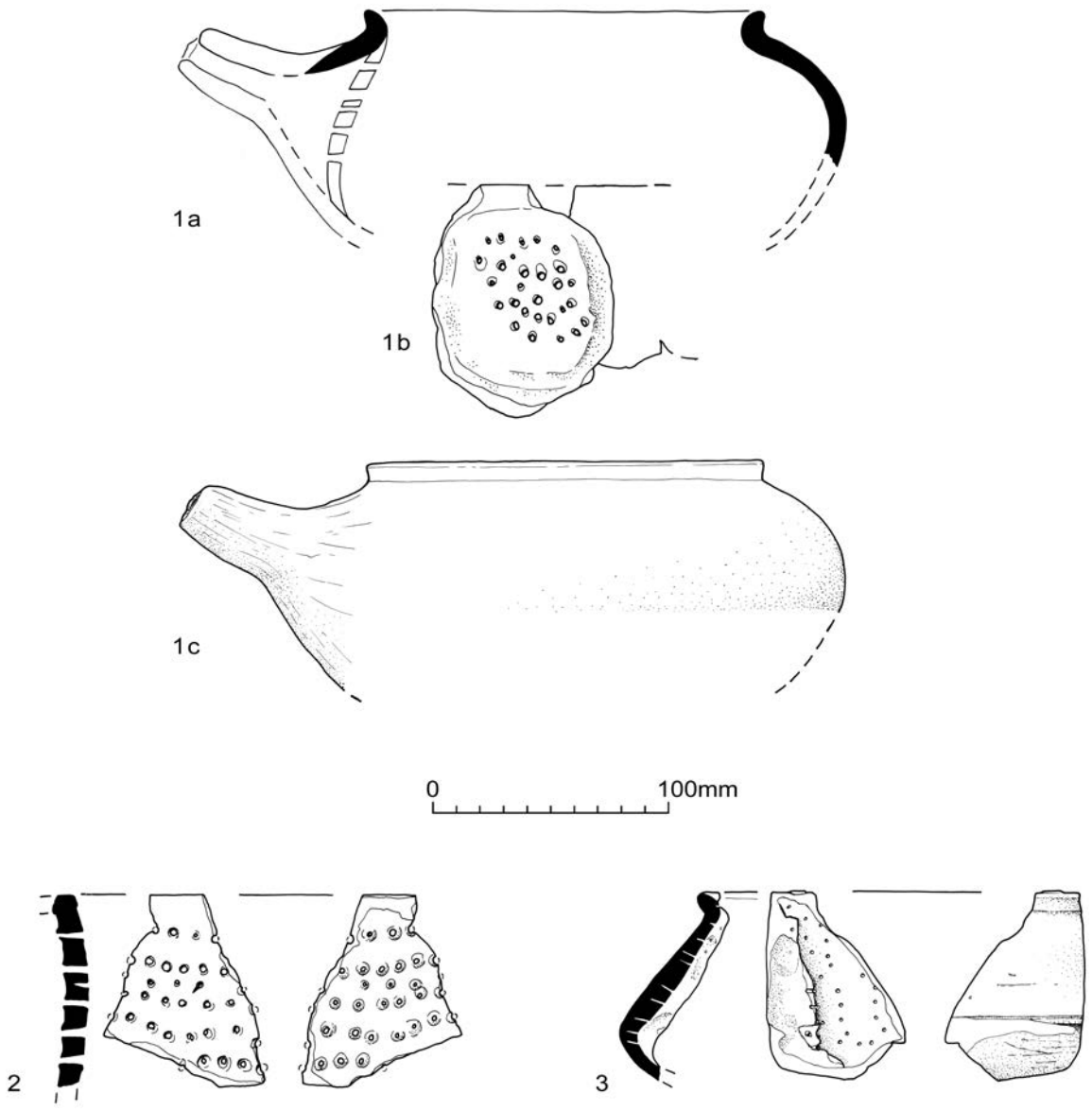

FIGURE 1: Ceramic Strainer Bowls from Heybridge Elms Farm

Fig.1 No.3. Slot 4928 (Context 4916). Unstratified. Spouted strainer bowl with carinated profile and everted rim with flat top; the outer surface is burnished. On the inside wall of the bowl are the impressions made when the strainer panel was perforated and the perforating tool impinged on the wall.

Appendix. Ceramic Strainer Bowls of Iron Age Date or Type from Essex

Ardleigh. Three grog-tempered strainer bowls with carinated profiles were retrieved from the so-called Cauldron Pit filled *c*.AD 45. An unstratified spout from a carinated strainer in the same fabric was found nearby (Sealey 1999, 33, 117, fig.82 nos 4–6, 119, fig.84 no.19).

Colchester (Sheepen). Several were reported from the 1930–39 excavations in the 'thick brown native ware' described as 'soapy' from which description it is clear the ware was grog-tempered. Only one was stratified, in a context dated AD 43–61 (Hawkes and Hull 1947, 273). Two more came from the 1970 excavations. The larger was sand-tempered with some grog and had Neronian associations; the other was apparently sand-tempered and came from a post-medieval context. Both were burnished and have a hard fabric suggesting production in a Roman kiln (Niblett 1985, 34, fig.33, Microfiche 1 D3–4).

Heybridge (Crescent Road). The spout of a strainer bowl in grog-tempered ware with a rounded profile and burnished surface was stratified in a context dated *c*.AD 50–100, although evidently a vessel of pre-conquest date (Thompson 1987, fig.16 no.49, 35).

Rainham (Moor Hall Farm). Spouted strainer bowl in a grog-tempered fabric with much sand; the bowl is carinated with a spill-plate. It came from the fill of a well in Area A dated *c*.AD 1–100. It was drawn to my attention and made available for study by Dr P.A. Greenwood (Howell *et al.* 2011, fig.58 no. <P83>).

Thurrock. A sherd of a grog-tempered perforated panel from a strainer bowl (Portable Antiquities Scheme database record ESS-DFA336).

Wickford (Beauchamps Farm). The greater part of a carinated strainer bowl in grog-tempered fabric from her 1980 excavations for Billericay Archaeological and Historical Society was shown the writer by P. Neild. Perforations in the perforated panel are large, up to 3mm across. The bowl was stratified in a ditch filled *c*.AD 50 with much Late Iron Age grog-tempered pottery and some South Essex shell-tempered ware. Interim reports on the excavations are available in Couchman (1980, 41–50) and Eddy (1981, 63–7). A second strainer came from the adjacent excavations by W.J. Rodwell in 1971. It too was in grog-tempered ware and came from a conquest period context. Unusually, the spout points downwards. Brief notices of the excavation are given by Wilson (1970, 291–2; 1971, 273–4; 1972, 335).

Acknowledgements

At Colchester Museum Glynn Davis very kindly located the Elms Farm strainer bowls for me. Joyce Compton and Mark Atkinson went to great lengths researching the site archive on my behalf to establish the context dates. Sue Holden drew the vessels and Roger Massey-Ryan arranged the reductions and mounting for publication. I am very grateful to all five.

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Book Reviews

'KINGDOM, *CIVITAS*, AND COUNTY: THE EVOLUTION OF TERRITORIAL IDENTITY IN THE ENGLISH LANDSCAPE' by Stephen Rippon, 2018, Oxford University Press, £85.

In 'Kingdom, *Civitas* and County' Stephen Rippon explores the development of territorial identity in the late prehistoric, Roman and early medieval periods. He demonstrates the possibility of territories and administrative boundaries enduring in different forms from the prehistoric, through to the early medieval period with the local population being key to their survival over millennia. He defines four zones based on natural topography, soil types, and geology, as well as distribution of artefact, site and feature types, with a range of dates from the Iron Age to the medieval period. The results of this work show a strong correlation between the cultural material and the defined regions, indicating continuity through time.

He adopts a comparative approach, plotting objects and diagnostic materials against the soils, land cover, relief and linear earthworks to determine regional patterns. He concentrates on an area of eastern England, which includes Essex, assessing diverse data in determining the distributions, using thousands of published finds, Historic Environment Record data, grey literature and artefacts recorded by the Portable Antiquities Scheme. He effectively models a range of different objects, amongst them Iron Age coins, brooches, ceramics and loom weights, Roman metalwork and pottery, Anglo-Saxon brooches and sleeve clasps, alongside features such as hill-forts, villas, temples, *Grubenhäuser* and burials to determine that similar regional divisions existed during the Iron Age, Roman and early medieval periods.

The book shows that over the course of the Iron Age, a series of marked regional variations in material culture and landscape character emerged across eastern England that reflect the development of discrete zones of social and economic interaction. In eastern England at least, these pre-Roman socio-economic territories appear to have survived throughout the Roman period despite a trend towards cultural homogenization brought about by Romanization. These territories probably relate to the Roman administrative *civitates*. The fifth century saw some Anglo-Saxon immigration but whereas in East Anglia these migrant communities spread out across much of the landscape, in the Northern Thames Basin they appear to have been restricted to certain coastal and estuarine districts. The remaining areas continued to be occupied by a substantial native British population, including much of what became the East Saxon kingdom (very little of which appears to have been 'Saxon'). By the sixth century a series of regionally distinct identities—that can be regarded as separate ethnic groups—had developed which corresponded very closely to those that had emerged during the late prehistoric and Roman periods.

The reason why these territories persist is complex. Some areas may have passed relatively smoothly from post-Roman to English rulers, with *de facto* territorial organisation persisting for some time. Other areas went through a period of fragmentation rather than amalgamation as incoming Saxons took over Romano-British systems of government.

Within 'Kingdom, Civitas and County' differences between territories are defined by the result of differences in the density of Anglo-Saxon immigration and the relative survival of native Romano-British populations, or, by the sixth century, in the appearance of regionally distinctive ethnic groups.

This book provides an inspirational review of the development and continuation of territorial boundaries in eastern England, and for the local reader there are numerous Essex examples included as examples. The one disappointment about the book is the price at £85.00 which will limit its circulation.

Richard Havis

THE HUNDRED PARISHES; AN INTRODUCTION by Ken McDonald, the Hundred Parishes Society, 2018, 431 pages including index, £25 (£32 including postage).

The 'Hundred Parishes' concept is evidently designed to protect and celebrate an area stretching from Buntingford to Wethersfield and Linton to Sawbridgeworth. It includes sixty-eight Essex parishes, twenty-seven from Hertfordshire and nine in Cambridgeshire. Stansted airport sits in the middle, the M11 roars through from north to south and not one but four 'garden cities' have been mooted within the area's boundaries. Those with local knowledge may pick up this book with a sinking heart, prepared for a strong dose of planner–developer antagonism.

However, the book rises above this temptation and is more akin to a box of superb chocolates, every page of which rewards devouring. From the first parish—Albury near Bishop's Stortford—to the last—Wyddial near Buntingford—the reader plunges into a most engaging and absorbing account of a lovely part of England that is underrated because unseen by many of those who pass through by car. The text concentrates on the extraordinary number of aged buildings that remain, churches, farmhouses, cottages and tradesmen's premises and charmingly juxtaposes early photographs of village streets with modern views to show how little has changed over the years. In places it resurrects gentry houses that have been demolished, elsewhere it shows buildings that have been rescued after a long period of impoverished neglect. People are also celebrated; from a 17th-century 'forerunner of Disneyland' who set up an amusement park at Littlebury, to the Countess of Warwick's creative community at Little Easton. Other parishes are celebrated for being the first to achieve something; Debden was the first to open a community shop in Essex, Helions Bumpstead started the first branch of the Agricultural and Rural Workers' Union which promptly called a strike that

caught the nation's attention. Other places are selected to celebrate national endings—the place where the last bustard was shot (Heydon), the place where strip farming on common land finally ceased (Hildersham).

If one layer of the chocolate box is the Hundred Parishes' visible ancient history there is another thoroughly modern layer. For those who want to explore on foot informal reference is made to local and regional walks and to places where tea and cakes can be found. Cycle lanes and nature reserves are carefully noted. The value of the modern conservation area speaks for itself in the enduring beauty of places like Clavering and Little Dunmow. A dozen museums are celebrated, including Duxford with its 200 aircraft and Stansted Mountfitchet with its reconstructed castle and toy museum. Above all, the modern photographs on every page display the variety of thatched, timber-framed and barge-boarded cottages, the elegant brickwork of the stately home and industrial complex, the eccentricity of chimneys and porches and the variety of church construction. The book has no need to provide more than the occasional reference to the effect of modern farming, transport and planning when the enduring loveliness of this ancient landscape is so clearly displayed.

The book has been produced by a team of contributors and volunteers and is supported by the Hundred Society's website www.hundredparishes.org.uk. The spare introduction glosses over any idea of local political or economic consequences which may or may not lurk in the back streets of Buntingford or Saffron Walden. Instead it presents a region of tidy villages enjoyed by wealthy incomers who have taken on the challenge of updating derelict cottages. It makes the point that inhabitants are keen to preserve their separate settlements. This book celebrates their success.

Dr Jane Pearson

A Bibliography on Essex Archaeology and History for 2018

Andrew Phillips and Paul R. Sealey

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REVISED NOTES FOR CONTRIBUTORS

Submission of articles

1. Article may be submitted at any time and will be considered for the first available edition of *Essex Archaeology and History* (hereafter *EAH*).
2. All contributions should be sent to the Hon. Editor, and should comprise two hard copies of the text and illustrations, and a digital version of the same on DVD or CD, arranged as described below.
3. All material submitted on DVD or CD should be clearly labelled with titles readily identifiable with their contents.
4. Articles should be prepared under the general conventions set out in the Guidelines (2009) for the *East Anglian Archaeology* (hereafter *EAA*) series. They can be accessed and downloaded from the *EAA* website (www.eaareports.org.uk).
5. It is essential that these Guidelines and style conventions are followed, and in particularly that the use of the system of referencing is consistent.

Submitted text

1. To assist the editorial process, please:
2. Prepare the digital copy in Word or RTF.
3. Limit the amount of formatting as much as possible (such as the use of tabs) on both text and tables. Do not attempt to emulate the layout of *EAH* by adding formatting other than the advice given here, as the correct formatting for the articles will be applied during the typesetting process.
4. Use a standard font, ample margins, 1.5 or 2.0 spacing, and number each page sequentially.
5. Print all A4 pages on one side only.

Submitted Figures and Tables

1. All Figures and Plates should be submitted as separate files. Do not embed them in the text.
2. Simple Tables may be embedded in the text, but make the formatting as simple as possible. Larger and more complex Tables should be provided in separate files, carefully labelled.
3. All Figures, Plates and Tables that are provided as files separate to the text should be provided with a list of Captions in a separate Word or RTF file, i.e.

   FIGURE 1: Site location
   FIGURE 2: Plan of excavated area

4. It will be helpful on the final submission (after refereeing and corrections) for the suggested placement of Figures and Tables to be marked in pencil in the margins of a hard copy.

Organisation of articles and headings

1. All main articles and shorter notes should begin with a title on one line, followed by the author(s) names, initial(s) and surname(s), on a following line.
2. Main articles should then have a summary paragraph (in italics) setting out the main objectives, content and findings of the article.
3. The article proper should then start with a main heading, such as INTRODUCTION.
4. Most archaeological articles are sub-divided by headings; historical ones frequently have the text in continuous form but may also be sub-divided by headings if desired. If in doubt, please consult the Hon. Editor.
5. For most articles up to 4 levels of Headings should prove sufficient. The typesetter will apply the *EAH* house style, but please identify the different levels of heading by using the following:

Type	Description	Example
Main Heading	14pt, bold, caps	**INTRODUCTION**
Sub-heading	12pt, bold	**Excavation**
Sub-sub-heading	12pt, italic	*Pottery*
Sub-sub-sub-heading	12pt	Iron-Age

6. To aid clarity for the referees and editor, each of the above headings or sub-headings should be followed by a blank line.
7. Acknowledgements should be a separate main heading at the end of an article, but before the Bibliography.

Punctuation, spelling and grammar

1. Please follow the *EAA* Guidelines, section 5.

Numbers, measurements and dates

1. Numbers below 100 should be written out, unless measurements, *e.g.* 'twenty-one potters made 207 pots in 226 days. Of these only ten pots had a diameter of less than 2.45cm.'
2. En rules (–) rather than hyphens (-) should be used for number and dates ranges, i.e. Figs 3–4 not Figs 3-4.
3. For more information on numbers, see the *EAA* Guidelines, section 6.
4. Measurements should be in metric units, except where these were measured historically in imperial or other units.
5. Use AD and BC only where necessary and in the following format: 323 BC; AD 63.
6. Other calendar dates should use the following format:
   7 March 1654
   7 March
   March 1654
7. For radiocarbon dates, see *EAA* Guidelines 6.3.

Compass points and grid references

1. Abbreviated compass points may be used but these are perhaps best left to non-narrative parts of the text. Do not use N, NW, SSE, *etc*., at the beginning of sentences. Do not use 'northern', 'northerly' where 'north' will do. 'North-to-south' is preferable to 'north-south'.
2. Heights above Datum should be expressed in the form *e.g.* 2.4m OD (no full stops).
3. Grid references should normally be eight figures: TL 3456 7890.

Illustrations (Figures and Plates)

1. It is the responsibility of authors to ensure that all illustrations are of publishable quality. The Society cannot normally pay for material to be re-drawn to professional standards.
2. Illustrations can be provided as hard-copy originals suitable for scanning or as digital files, in the latter case as uncompressed .jpegs or .tiff files or similar. See *EAA* Guidelines, section 9.5.

3. The maximum page size for illustration is 176mm × 256mm. Please allow 7mm for a one-line caption and 11mm for a two-line caption where used with a full-page illustration.
4. Colour illustrations can be accommodated, but please enquire of the Hon. Editor first as there may be an additional cost implication.
5. Captions for illustrations should be provided in a separate Word file and not on the illustration itself. The digital files should be labelled so that the illustrations and captions can be easily matched.
6. Drawings should appear at a recognised scale wherever possible and they should show the appropriate grid points, north, and bar scales. Do not forget to provide a key to drawing conventions.
7. The *EAA* Guidelines, section 9 contain more details. Please enquire of the Hon. Editor if you have any questions.

References

1. *Essex Archaeology and History* generally uses Harvard-style bibliographical references in parentheses in the text, with a full Bibliography at the end of each article. For example:
   (Jones 1962, 223–5)
   (Pryor *et al*. 1980, 140–7)
   (Green, H.S. 1980; Green F. 1982)
2. References to an author who has more than one publication in a year should be distinguished as follows:
   (Bloggs 1984a, 21)
   (Bloggs 1984b, 76–7)
3. References to on-line sources should give the URL in angled brackets, for example:
   <www.ads.ahds.ac.uk>
4. If the on-line source is thought likely to be the subject of change then the date of access may also be given in the form:
   <www.essex.ac.uk/history/esah/essexplacenames/index.asp> (accessed 1 July 2013)
5. Footnotes are never used. Endnotes may be used for historical articles, especially those with manuscript references, but only by arrangement with the Hon. Editor.
6. Avoid using Latin terms such as ibid., op. cit., passim.

Bibliography

1. The Bibliography should normally be the last heading in the article, with the items arranged in the following format.
2. Only sources referenced in the article should be included in the Bibliography.
3. All Bibliography items should be arranged by first author surname. Author's initials should be standardised.
4. The place of publication (or series) should be given.
5. Please give the full page ranges of articles, not just the pages referred to.
6. Titles of books should normally be capitalised as published but those of papers, *etc*., can be reduced throughout (with the exception of proper nouns) to lower case.
7. The titles of books and periodicals should be italicised and the titles of articles should be placed in single inverted commas.
8. Volume numbers should be cited in Arabic numerals.
9. The use of *et al*. should be confined to references in the text, with all authors cited in the bibliography.
10. Please note the following examples of punctuation, italicisation and formatting carefully, as this always causes the heaviest copy-editing.

Books/Monographs:
Kemble, J. 2001, *Prehistoric and Roman Essex* (Stroud)
Cunliffe, B.W. 1991, *Iron Age Communities in Britain* (3rd edn, London)

Edited Books/Mongraphs:
Gibbs, M. 1939 (ed.), *Early Charters of the Cathedral Church of St. Paul, London*, Camden Third Series, 58 (London)
Mays, M.R. (ed.) 1992, *Celtic Coinage: Britain and Beyond. Eleventh Oxford Symposium on Coinage and Monetary History*, Brit. Archaeol. Rep. British Ser. 222 (Oxford)

Articles:
Holland, M. 2004, 'Captain Swing', *Essex J*. 39, 20–3
Carew, T, Clarke, C. and Eddisford D. 2011, 'Medieval occupation in Maldon, Essex: excavations at 127–129 High Street, 2007', *Essex Archaeol. Hist*. 4th ser., 2, 107–16

Articles in edited books:
Hedges, J. 1978, 'Essex Moats', in Aberg, F.A. (ed.), *Medieval Moated Sites*, Counc. Brit. Archaeol. Res. Rep. 17, 63–70
Wade-Martins, P. 1989, 'The Archaeology of Medieval Rural Settlement in East Anglia', in Aston, M., Austin, D. and Dyer, C. (eds), *The Rural Settlements of Medieval England* (Oxford)

Specialist reports in articles:
Margeson, S. 1982, 'The artefacts', in Atkin, M.W., '29–31 St Benedict's street', in Carter, A. (ed.), *Excavations in Norwich 1971–78, Part I*, E. Anglian Archaeol. 15, 8–9

Theses and dissertations:
Senter, A.M. 2014, 'The development of Essex seaside resorts, 1815–1914' (unpubl. PhD thesis, Univ. of Essex)

Electronic sources:
Peacey, A. 1996, 'The Introduction of Tobacco and Tobacco Pipes to the British Isles', *Internet Archaeol*., 1: Available: <http://intarch.ac.uk/journal/issue1/peacey/intro.html> (accessed 18 July 2014)

Abbreviations

1. A full-stop should be used for an abbreviation, other than where it is a contraction, *e.g.* ed. (for editor) but eds (for editors).
2. Some common abbreviations that may be used in the text:

Fig.	Figure(s)
Pl.	Plate(s)
No.	Number
St or SS	saint(s)
c.	circa
%	per cent

OD	Ordnance Datum
AD	Anno Domini
BC	Before Christ

3. Some common abbreviations that may be used in the Bibliography:

General (*these should be* italicised *if part of a title of a periodical or published report*)

Archaeol.	Archaeology/archaeological
Brit.	British
Colln.	Collections
Counc.	Council
edn	edition
Hist.	History/Historical
J.	Journal
Monogr.	Monograph
Proc.	Proceedings
Res.	Research
Rep.	Report(s)
Ser.	Series
Trans.	Transactions
Univ.	University
unpubl.	unpublished

Specific periodicals and series

Counc. Brit. Archaeol.	*Council for British Archaeology*
Colch. Archaeol. Rep.	*Colchester Archaeological Reports*
E. Anglian Archaeol.	*East Anglian Archaeology*
Essex Archaeol. Hist.	*Essex Archaeology and History*
Essex Archaeol. Trans.	*Transactions of the Essex Archaeological Society*
VCH	*Victoria History of the Counties of England*
RCHM	*Royal Commission on Historical Monuments*

Quotations, copyright and acknowledgements

1. Usually short quotations from published academic works do not require copyright permission, provided that the source is correctly cited. Subject to the Copyright, Designs and Patents Act 1988, extracts from commercial publications may need permission.

2. Quotations should be within single inverted commas, quotes within quotes in double inverted commas, omissions to be marked by three full stops ... additions within square brackets. Original spellings in quotes should be retained. Quotations longer than five lines should be indented and the quotation marks omitted. All quotations must be referenced.
3. Authors must obtain any necessary copyright and reproduction clearance (for example from archives or picture libraries), except from the Ordnance Survey whose copyright permission will be obtained by the Hon. Editor on a volume-by-volume basis.
4. It is necessary for authors to identify all Ordnance Survey illustrations including those that have been largely redrawn and may no longer be instantly recognisable as Ordnance Survey products.
5. Where illustrators or photographers have made a substantial contribution to the report, they should be acknowledged on the Title page with other contributors; otherwise, they should be credited in Acknowledgements. It is the author's responsibility to see that illustrations are correctly acknowledged and credited.
6. Contributors are solely responsible for all views and opinions expressed in *Essex Archaeology and History*, which do not necessarily represent those of the Society.

Publication process

1. The publication process will be similar to that described in the *EAA* guidelines, section 2.
2. After submission to the Hon. Editor, all articles without exception will be peer-reviewed by one or more expert referees.
3. If the article is deemed suitable for publication, the Hon. Editor will then copy-edit the article.
4. The referee's and Hon. Editor's comments, queries and copy-editing will be returned to the author, with a timetable for production of a revised article.
5. The author will submit the revised article as a digital file and one hard copy to the Hon. Editor. The approximate location of all Figures, Plates and Tables should be marked by the author on the margins of the revised hard copy in pencil.
6. The Hon. Editor who will conduct a final check, after which the complete set of articles will be submitted to the publisher for typesetting.
7. Publisher's page proofs will be sent to authors for checking.
8. The Hon. Editor will collate all authors' corrections on the proofs and return them to the publisher for correction. Unless there are exceptional circumstances no further proofs will be supplied.

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