

# TRANSACTIONS

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## The Essex Society for Archaeology & History

FORMERLY THE ESSEX ARCHAEOLOGICAL SOCIETY  
FOUNDED 1852

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# ESSEX 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.

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### *Membership*

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# A Prehistoric and Roman landscape on the Tendring Plateau: Investigation at Hill Farm, Tendring

**Ellen Heppell**

with contributions by Gemma Ayton, Luke Barber, Nigel Brown, Anna Doherty, Val Fryer, Nick Lavender, Karine Le Hégarat, Hilary Major, Scott Martin, Dawn Elise Mooney, Susan Pringle, Elke Raemen, Paul Sealey, Lucy Sibun, Susan Tyler and Helen Walker

*Archaeological investigation was carried out across the 10.5ha extent of an agricultural reservoir development at Hill Farm, Tendring, in the period 1997–2003. The recorded remains attest to the occupation and exploitation of this part of the Tendring Plateau landscape from the prehistoric period onwards, and comprise a Middle Bronze Age cemetery, Early Iron Age buildings, a Late Iron Age and Roman multi-phase field system and Early Saxon occupation comprising a building and well.*

## INTRODUCTION

Archaeological investigations were undertaken at Hill Farm, Tendring by the former Essex County Council Field Archaeology Unit in advance of the construction of an agricultural reservoir. The archaeological works were undertaken in two main stages; evaluation and excavation within the area of the initial reservoir site in 1997 and 1998 and excavation within an extension area in 2003. The aim of these works was to investigate an extensive cropmark complex which would have been removed by the excavation of the reservoir. This report describes the results of the archaeological works. The site archive will be deposited at Colchester Museum under the site codes TEHL97, TEHL98 and TEHL03.

## BACKGROUND

The agricultural reservoir site was situated to the south-west of the village of Tendring, to the west of Hill Farm and east of Gurnhams Farm (Fig. 1; TM1347323685). The site lies on the Tendring Plateau, a gently undulating area which is rural in character with a dispersed settlement pattern. The Holland Brook drains the area and the valley of a small tributary of this brook is situated to the north of the site, where the largely flat topography, at c.25m OD, drops away to c.15m OD. The extant stream was straightened prior to the 1870s, but its former route is shown as a civil parish boundary on Ordnance Survey mapping. The site lay within two arable fields, eastern and western.

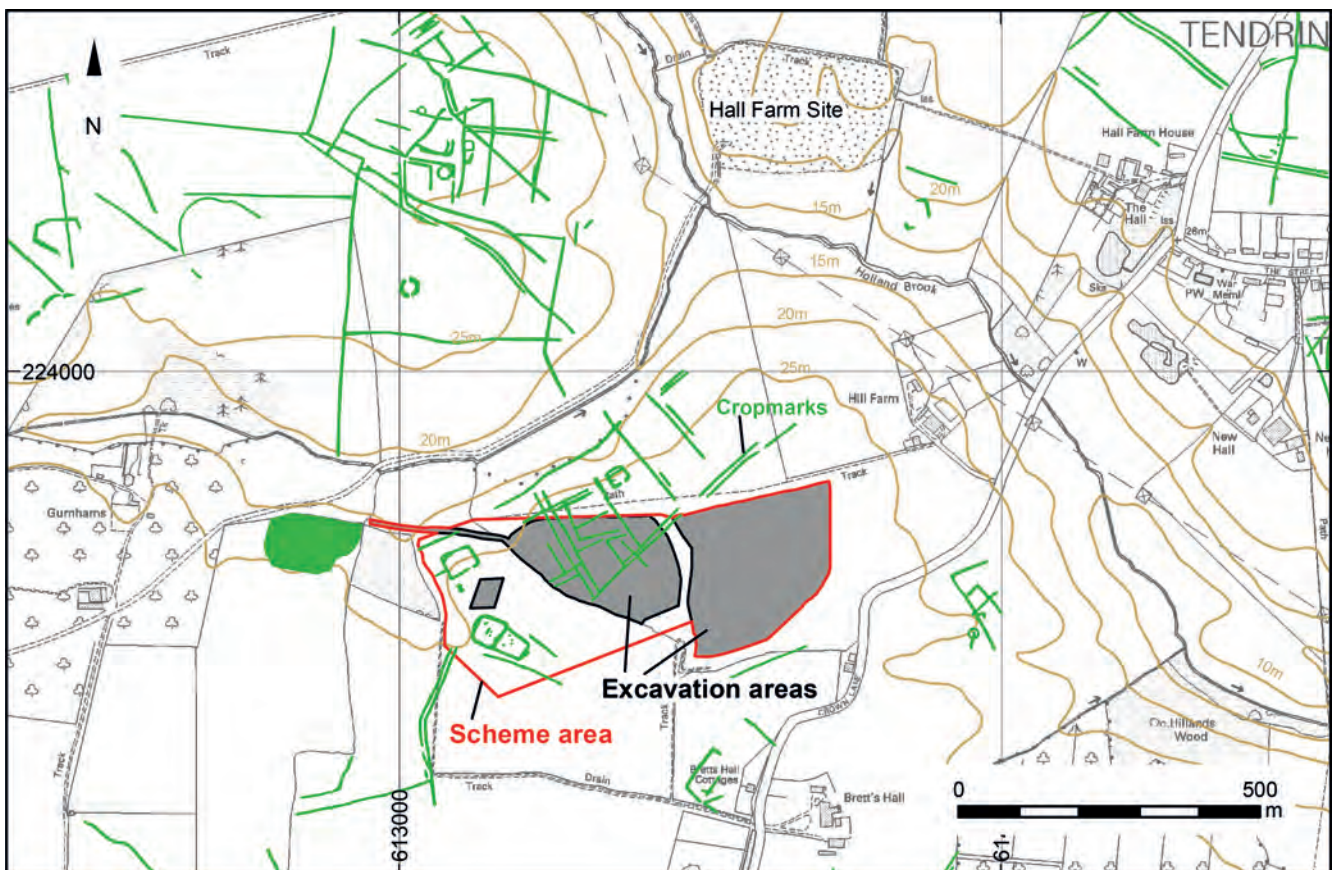


FIGURE 1: Site Location with cropmarks



FIGURE 2: Areas of investigation, including reassessed cropmark plot (after Cox 1997)  
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The geology of the Tendring Plateau largely comprises cover deposits of loess and coversands (brickearth/cover-loam), which overlie gravels deposited by the ancient River Thames; the latter deposits exposed at the surface where the plateau has been incised by streams and rivers. The geology of the area of the reservoir is mapped as undifferentiated mix of clays and silts (Lowestoft Formation) and sands and gravels (Kesgrave Formation). The topsoil was between 0.30m and 0.40m thick and lay above a variety of natural subsoils, reflecting the variations in the geology. In the west of the excavation area they comprised gravels, to the east these comprised sands and gravels and a silty-clay brickearth type deposit which appears to have significantly influenced the layout of the field systems on the site.

The area around Tendring village is known for the numerous and extensive cropmark complexes which have been identified by aerial photographic survey, such as that undertaken by the National Mapping Programme (Ingle and Saunders 2011). Although a number of the cropmarks represent modern boundary loss, others are of some antiquity, comprising ring-ditches, enclosures and numerous linear features; the latter typically being the remains of field systems relating to the Late Iron Age and Roman period or else to the medieval and post-medieval Tendring village. The nature of the soils and geology also means that patterns of ‘frost cracks’, of natural origin, are also visible on photographs. The reservoir scheme lay within one of these cropmark complexes; an extensive network of ditch-like linear anomalies interpreted to denote the presence of below-ground remains of rectilinear enclosure systems and trackways, but also possible geological features (Fig. 1).

Following the reassessment and digitisation of the aerial photographic data in the immediate vicinity of the reservoir scheme (Cox 1997), the archaeological potential of the original 10.5ha extent of the reservoir was evaluated by means of trial trenches targeted upon selected cropmark anomalies (Fig. 2). This 1997 trenching corroborated the interpretation of the cropmark anomalies and established the presence of below-ground remains across the scheme area. These included a sub-rectangular enclosure (ENC1) and a low density of other features in the western field and a proliferation of ditches in the eastern field. An area around cropmark enclosure ENC1 was subsequently excluded from the finalised reservoir scheme but a 3.6ha site to its east excavated 1998 (Fig. 2). In addition, monitoring was undertaken during the excavation of a borrow pit in 1998 (Fig. 2). A 5.2ha extension to the eastern side of the original reservoir, lacking any identified cropmarks, was later excavated in 2003 (Fig. 2). Collectively, the 1998 and 2003 open area excavations revealed a relatively complex and dense array of intersecting ditches, gullies, pits, post-holes and other remains ranging in date from the Early Bronze Age to post-medieval and modern periods.

Survival of these remains below the removed plough soil was variable, most of the ditches and gullies being cut relatively shallow into the undisturbed natural deposits to a depth of 0.2m to 0.8m deep. The majority of ditches contained simple single fills, though a high proportion of these had evidently been recut as the boundaries that these features defined were maintained, re-established and remodelled. Given the variable nature of the subsoils across the site, feature legibility was also variable, being particularly poor where the

silty subsoil was present. Although little in the way of vertical stratigraphy was encountered, intercutting of major landscape features such as ditches was widespread. Consequently, site phasing has been determined using a combination of intercut stratigraphic relationships, artefactual dating evidence and spatial patterning.

A hierarchical context, group and land-use framework has been applied to structure the results and to aid interpretation and referencing throughout this report. Contexts numbers reference the individual stratigraphic units recorded in the field; where used in the text, deposit numbers are enclosed in round brackets and cuts in square brackets. Group numbers have been assigned to interrelated contexts, for example excavated segments dating to one phase along the length of a ditch; these are prefixed in the text with G. Each group of features has been assigned to a numbered land-use entity, which broadly characterises the function of the land for a given period. The following land-use prefix codes have been used at Hill Farm:

- B = Building
- C = Cemetery
- FS = Field system
- OA = Open Area (unenclosed areas, fields, etc.)
- R = Routeway
- S = Structure

## THE SITE

The following section provides a chronological narrative of the development of the site as derived from the collective results of the various stages of archaeological works. The recorded remains are described and interpreted by broad chronological period and within these, where appropriate, by phase. These cover the Bronze Age, Iron Age, Roman, Early Saxon and post-medieval/modern periods.

### Unphased Features

Whilst it has been possible to establish or postulate phases for many of the features on the site, a number remain undated and unphased. These are typically natural depressions or hollows (*e.g.* G170 [681]) and isolated pits (*e.g.* G170 [364]), or dispersed isolated features which contain no artefacts. In other instances there is sufficient information to suggest broad phasing. Where this is the case, such features are shown on the relevant phase plans.

### PERIOD 1: BRONZE AGE

Although Mesolithic/Neolithic worked flints were recovered from the site, hinting at a human presence in the landscape in these periods, tangible use and modification of the landscape is not apparent until the Bronze Age. This Bronze Age land-use comprises two main elements, a fragmentary field system (Fig. 3) and a ritual landscape (Fig. 4), the latter primarily represented by a Middle Bronze Age cremation cemetery with the Late Bronze Age represented by a single pit and residual pottery.

#### *Phase 1.1: Early Bronze Age*

The earliest feature that can be definitively assigned to any period is isolated Late Neolithic/Early Bronze Age pit, G106, located in the far west of the excavation area (Fig. 3). Later

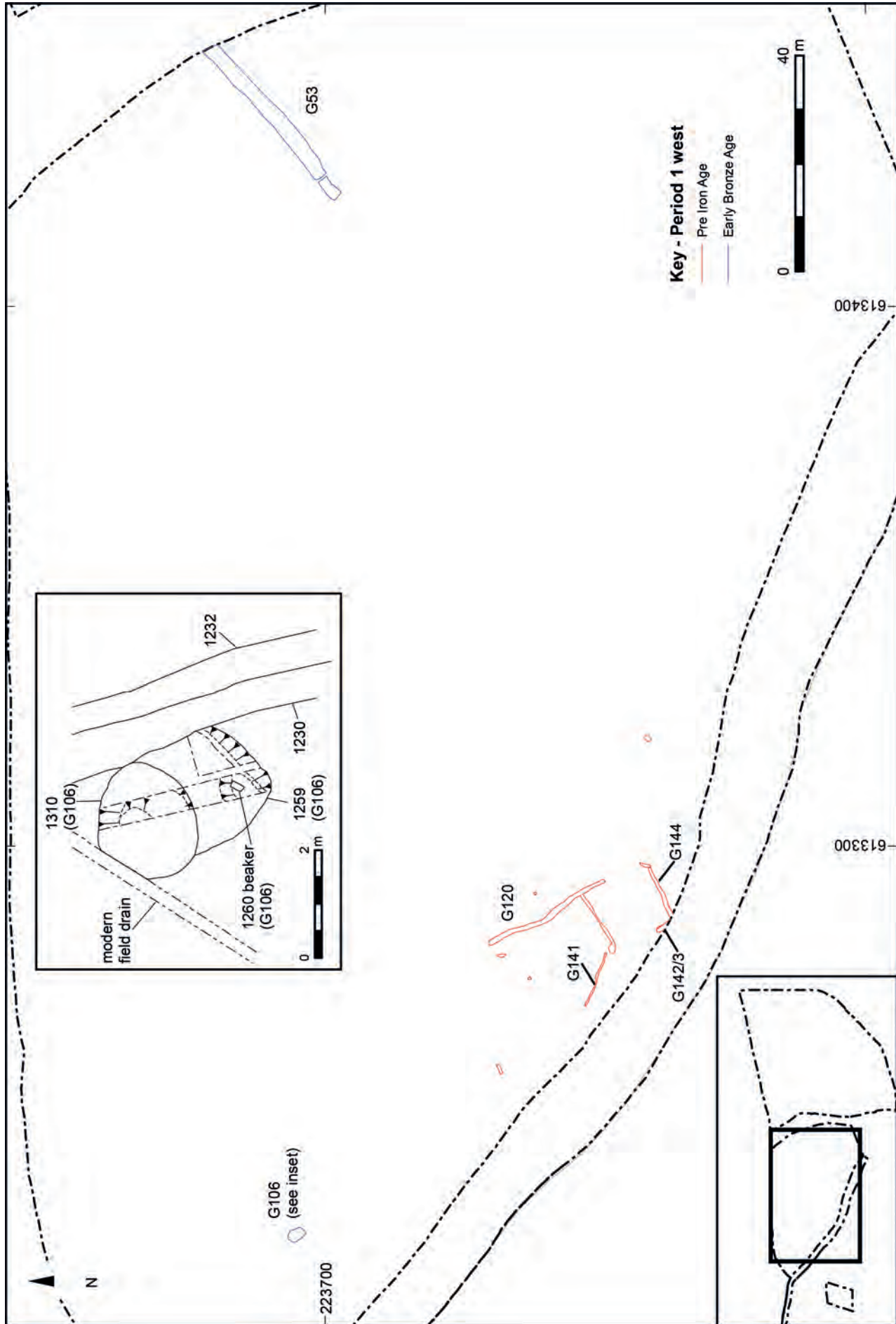


FIGURE 3: Period 1 Features (west)



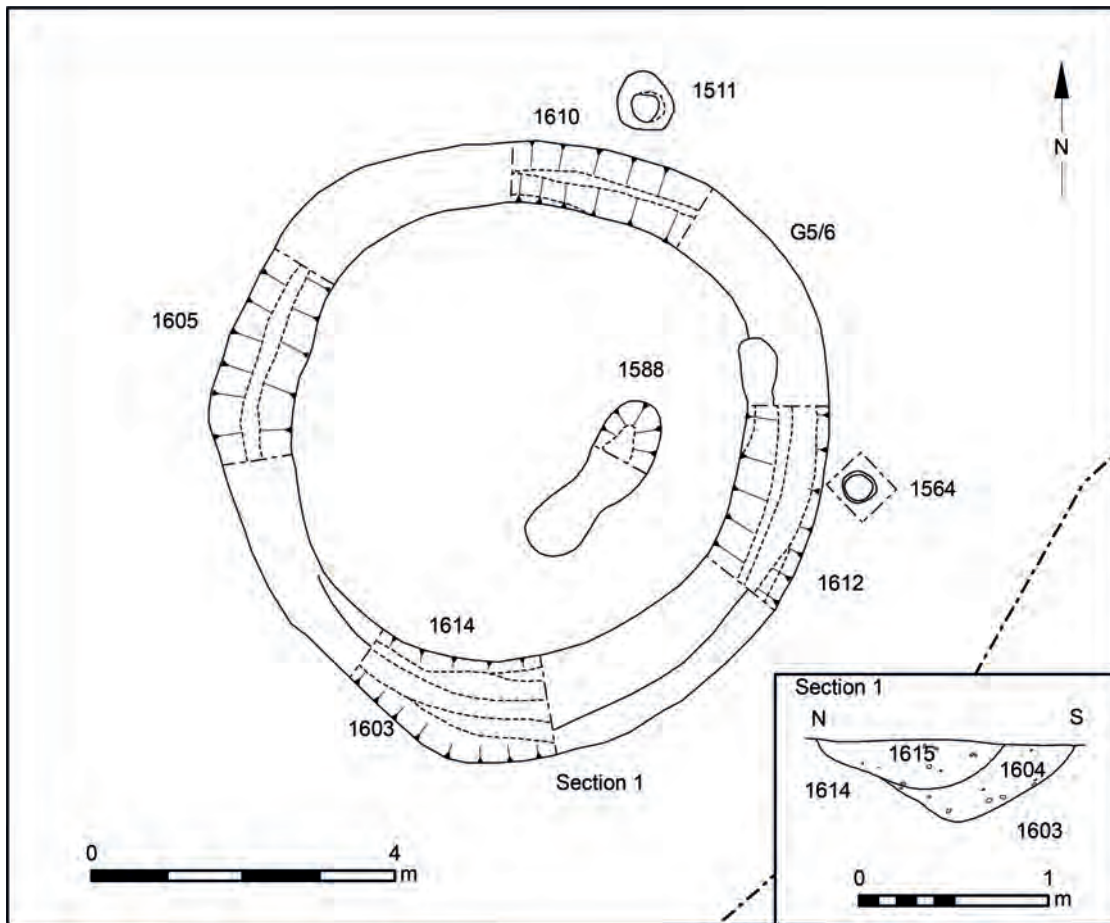


FIGURE 5: Ring-ditch G5/6 and associated features

most monumental element of these cemeteries and were commonly associated with simple 'satellite' cremation burials between the barrows and in peripheral cemetery locations—as is the case at Hill Farm. Here, the exposed extents of the cemetery covered an area of *c.*0.4ha of the site and there are almost certainly further such remains outside the excavation area. The Hill Farm cemetery is one of the 'Ardleigh Group'; the collective term applied to groups of small, closely-spaced Middle Bronze Age barrow remains found in north-east Essex and south-east Suffolk (Mark Germany, pers. comm.). Examples have been excavated at Ardleigh, Brightlingsea and St Osyth (Brown 1999; Clarke and Lavender 2008; Germany 2007) and others have been identified through aerial photography at Thorpe le Soken and Little Bromley (ECC HEM 2008). Radiocarbon dates from Brightlingsea and St Osyth indicate that the main period of activity relating to the Ardleigh Group was from 1500 to 1300 BC.

The ring-ditches were generally annular in shape, with some slightly irregular examples (*e.g.* G14) and one pennanular ditch (G12), with variable internal diameters (Table 1). Those excavated were found to have mostly shallow U-shaped profiles from 0.14m to 0.45m deep and widths from 0.5m to 1.2m. These shallow surviving depths demonstrate that the archaeological deposits in this area have been truncated. Most excavated segments contained only a single sandy silt fill. No evidence of mound-slumping, placed deposits or burials was found in these ditches although a possible re-cut (G6) was found along the inner (southern) side of G5, suggesting the

maintenance or re-use of this monument (Fig. 5). No finds were retrieved from the possible re-cut to demonstrate any great longevity of use. Very few finds were retrieved from the ring-ditch fills and mostly comprised abraded sherds of pottery and occasional pieces of Early Neolithic worked flint and/or burnt flint, although some larger Middle Bronze Age pottery sherds were recovered from G4.

Few features were noted within the centre of the ring-ditches, other than occasional irregularly shaped pits in the G1, G5/6 (Fig. 5) and G14 interiors which appeared to be more natural than man-made in origin. The only ring-ditch with an internal cremation burial (burial 1516) was the smallest of the group, G10, which although poorly defined, is likely to have had an internal diameter of 2.5m. This ring-ditch appears to be somewhat isolated from the rest of the group, being situated *c.*18m from those to its north-east and north-west (G9 and G12). The absence of burials in the rest of the group may be related to their original position within the barrow mound; had they been deposited relatively high in the mound they may have been subsequently lost as a result of truncation.

Many of the ring-ditches were relatively closely spaced, with 2–4m between them, but G9 and G10, located on the south-west periphery of the cemetery, are *c.*14m away from nearby ring-ditches. Overall the ring-ditches respect one another, in that there are no instances of one cutting another. Whilst there is no clear formal layout, there are hints at clustering and patterning. There is for example a notable

Group No	Description	Dimensions (m)
1	Ring-ditch at N edge of group (segments: 1539, 1546, 1549, 1553)	c.6m int. diam.
2	Ring-ditch at N edge of group (segments: 1558, 1572, 1569, 1544)	c. 6m int. diam.
3	Ring-ditch at S edge of group (segments 1593, 1598, 1596, 1600)	c.5m int. diam.
4	Ring-ditch at S edge of group (segments 1617 & 1619), only half exposed	?5m int. diam.
5	Ring-ditch at S edge of group (segments:1603, 1605, 1610, 1612) recut 1614	c.6.2m int. diam.
6	Recut of ring-ditch G5 on S & E sides only, concave profile	
7	Ring-ditch at S edge of group (segments:1608, 1625, 1620)	c.5.5m int. diam.
8	Annular ring-ditch, one segment (1688) excavated, at N edge of cemetery,	6m int. diam.
9	Annular ring-ditch, unexcavated, at westernmost extent of cemetery	5.5m int. diam.
10	Small ?Annular ring-ditch, unexcavated, around cremation vessel 1517	2.5m int. diam.
11	Annular ring-ditch, unexcavated, towards westernmost extent of cemetery	6.5m int. diam.
12	?Annular ring-ditch, fairly indistinct esp. SW side, at SW corner of cemetery, unex.	6m int. diam.
13	Annular ring-ditch, unexcavated, towards westernmost extent of cemetery	c.6m int. diam.
14	Annular, irregular ring-ditch, wider on W side. Unex, to S of ring-ditches 1441/1557	6m int. diam.
15	Annular ring-ditch, unexcavated, towards northernmost extent of cemetery	6m int. diam.
16	Annular ring-ditch, unexcavated, towards E of cemetery, v. truncated	6m int. diam.
17	Annular ring-ditch, unexcavated, towards NE of cemetery, v. truncated	7m int. diam.
18	Annular fairly small ring-ditch, unexcavated, towards SE of cemetery	4.5 int. diam.
19	Annular fairly small ring-ditch, unexcavated, towards SE of cemetery	5m int. diam.
20	Annular fairly small ring-ditch, unexcavated, towards SE of cemetery	4.5m int. diam.
21	Annular ring-ditch, unexcavated, towards E part of cemetery, truncated	6m int. diam.
22	Annular ring-ditch, unexcavated, towards NE part of cemetery, truncated	6m int. diam.
23	Annular ring-ditch, unexcavated, towards E part of cemetery, truncated	6m int. diam.

TABLE 1: Summary description and dimensions of the ring-ditches in cemetery C1

gap in the centre of the cemetery. It is, however, unclear if this represents a true lacuna or reflects the truncation of archaeological remains.

All but one of the eighteen cremation burials within the cemetery (C1) were distributed around the ring-ditches and comprised both urned and unurned examples (Table 2). All had suffered significant truncation, with only the base of the vessels surviving in a number of instances. The best preserved of the funerary urns were all interred in an inverted position though their bases had been truncated away, whereas the rest of the vessels had clearly been placed upright and were severely truncated leaving just the bases behind. Also of note is the partially-complete vessel recovered from pit [1645] (Fig. 4) which was close to the cemetery but contained no human bone. Broken sherds from the upper and lower parts of the vessel survive, suggesting that it was broken prior to deposition. It was located in the same general area as the Beaker pit [1531] and may represent a continued tradition of structured deposition in this area. Furthermore, there is some evidence that pottery may have been involved in mortuary practices even when human bone is absent. For example, a later Bronze Age vessel from Manston in Kent was found to contain a range of charcoal taxa consistent with pyre assemblages from other cremations in the local area. Here it was suggested that the vessel could have served as a cenotaph, placed as part of a symbolic funerary rite (Dinwiddy and McKinley 2009).

As noted above, the majority of the cremations lay outside the ring-ditches although some were in relatively close proximity to them, perhaps suggesting some form of direct association between individual burials and the ring-ditches

(see Table 2). In addition to these satellite cremations there were a number of more dispersed examples.

A group of unurned cremation burials, comprising a row of three, similar, small pits, [1535], [1561] and [1570], was located between ring-ditches G1 and G2. A fourth small pit G29, [1580] to the north of this group may also be associated, although no cremated bone was found in its fill. Given that the cremated bone recovered from the fill of pit [1561] is thought to represent the remains of an infant/child, it is perhaps tempting to interpret this group of cremation burials as being a family group.

A group of three cremations was located between ring-ditches G9 and G11, some 7m from the nearest ring-ditch. This group comprised two unurned cremations burials, [1555] being the earliest, subsequently cut by [1543] and then by a further urned cremation burial [1532]. The cremation vessel in the latest grave was an extensively decorated globular urn, which could perhaps indicate that the individual was of higher status. If indeed the case, it would also suggest that the individuals deposited in the earlier pits were also of some importance and that their resting place had been marked in some way, although the elapsed time between each of these interments is unknown and it could have been relatively short.

Two pits, [1745] and [1751], containing unurned cremations were identified 6m to the north of G17. Pit [1745] was of a comparable shape and size (0.56 long and 0.29m deep) to cremation burial pits [1624] and [1642] to the north and contained significant quantities of cremated bone.

Other features in the cemetery include a number of shallow pits and post-hole-like features, C2, most of which are likely to be contemporary with the cemetery (G27 and 29).

Some, such as [1645], contained Middle Bronze Age pottery of the type used in the cremations and others un-diagnostic prehistoric pottery. The purpose of these pits is unknown but some may perhaps be disturbed cremations.

The chronological relationship between the barrows and the cremation burials is undefined. It is likely, given that no cremation is cut by a ring-ditch, that they were deposited after the barrows had been constructed and the possible groupings discussed above would certainly suggest differing phases of activity, although the timescale involved remains unknown.

A further group of unurned cremations, C3, were situated to the north of the main focus of the barrow cemetery. The pits in which these were situated were notable for their relative size and depth. A comparative analysis of the charcoal from some of the cremation burials in this group and some from C1 suggest that differing woods were used in the pyre (see Charcoal below). This, coupled with their spatial location, suggests that they were either peripheral burials associated with the Middle Bronze Age barrow cemetery to the south, or perhaps slightly later additions; perhaps even contemporary with the Early Iron Age settlement remains to the west.

A linear ditch, G35, ran roughly east-west for c.100m along the northern edge of the ring-ditches and may possibly represent a northern boundary demarking the edge of the barrow cemetery C1. It could be broadly contemporary with the cemetery, as suggested by the type and condition of the Middle Bronze Age pottery present in segment [1636]. However, it would appear to have cut the edge of ring-ditch G8 and divorces a group of cremation burials, C3, from the ring-ditches. In addition, barrow cemeteries are not generally known to be enclosed in this period. It would therefore seem likely that the ditch is of a later date and serves to define the ritual landscape when the barrows were still visible but no above ground traces of the cremation burials remained.

The absence of intercutting stratigraphy and relative paucity of artefacts means that defining any relative chronology to the ring-ditches is difficult. It could be speculated that the smallest ring-ditch, G10, also the only one enclosing a burial, represents a differing tradition and therefore phase to the others. It has been suggested that similar sized examples at Brightlingsea represented later insertions into existing barrow cemeteries (*e.g.* Clarke and Lavender 2008, 57) and a similar pattern was noted at Ardleigh (Brown 1999, 164). The Middle Bronze Age cemetery at Hill Farm is largely in keeping with the recognised characteristics of the 'Ardleigh Group', although there are some small differences. The most likely explanation for the small differences between Hill Farm and the various other sites that constitute the Ardleigh Group is that the tradition of burial practice represented by the Group was very flexible, although it is also possible that changing fashion over time is also partly responsible. In possible contrast to St Osyth and Brightlingsea, there is no evidence from excavation at Hill Farm to support the hypothesis that Ardleigh Group ring-ditch cemeteries were often established in the vicinity of earlier monuments. Any settlement would, on the basis of the other sites discussed above, be expected to be within a maximum of 700m of the Hill Farm cemetery but no such monument has been identified on aerial photographs in the vicinity.

#### *Phase 1.3: Late Bronze Age*

The evidence for Late Bronze Age activity at Hill Farm is scarce with only a single pit, G180 ([1352]), located in the borrow pit to the west of the site (Fig. 2), being dated to this period. Its fill contained some 81 sherds of 9th-century BC pottery. There is no archaeological evidence for the continued use or re-use of the Middle Bronze Age cemetery, C1, beyond that period.

Land use	Cut	Vessel	Cremation Deposit/Fill	Fill/Backfill	Unurned	Urned	Associated Ring-ditch
C1	1516	1517	1518			•	G10
C1	1519	1520	1521	1522		•	G1
C1	1535		1535/1536		•		G1-G2
C1	1561		1562		•		G1-G2
C1	1570		1571		•		G1-G2
C1	1511	1509	1508	1510, 1523		•	G5
C1	1564	1565	1566	1567		•	G5
C1	1527	1526	1525	1524		•	G15
C1	1578	1576	1575	1577		•	G15
C1	1515	1513	1512	1514		•	G19
C1	1532	1530	1529, 1533	1528		•	
C1	1543		1542		•		
C1	1555		1554		•		
C1	1740		1739		•		
C1	1745		1744		•		
C1	1751		1750		•		
C3	1590		1589		•		
C3	1624		1623		•		
C3	1642		1657, 1641		•		

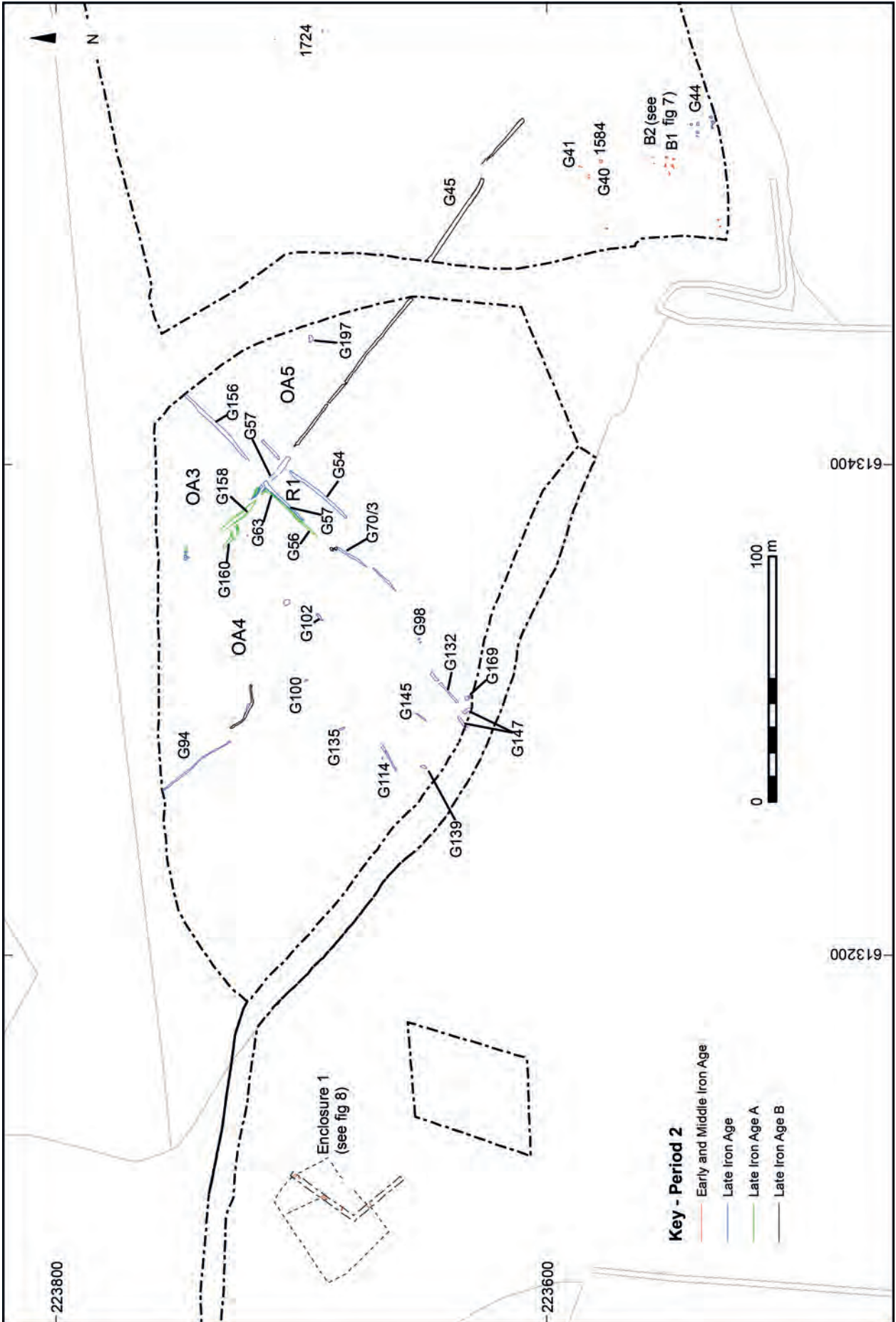


FIGURE 6: Period 2 Features  
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## Period 2: Iron Age

The Iron Age remains at Hill Farm denote a change in land use from the monument building and funerary activity of earlier periods, shifting to that of unenclosed settlement and the establishment of a more extensive organised agricultural landscape.

### Phase 2.1: Early and Middle Iron Age

The earliest evidence for settlement on the site dates to the Early Iron Age when two post-built structures, B1 and B2, were constructed in the south of the site (Figs 6 and 7).

The remains of building B1 (Fig. 7) comprised post-holes [1769], [1798], [1802] and [1800] which marked a square measuring *c.*3.5m by 3.3m. Additionally, post-holes [1796] and [1808] were located within this square although their purpose is unclear. All contained similar silty fills with rare charcoal and several produced sherds of pottery, of Early Iron Age and undiagnostic late prehistoric date, as well as a relatively large group of Late Bronze residual material. To the immediate west of this possible structure were two circular, unexcavated post-holes, which appeared to have very similar fills and could be associated with the building.

Approximately 5m to the north of B1 was a second possible structure B2, *c.*3m by 2.7m in plan, of which only three post-holes were excavated ([1814], [1816] and [1818]) (Fig. 7). All of the post-holes in this group appear to be smaller than those of the southerly structure, with diameters varying between 0.2m and 0.35m. Prehistoric pottery was recovered from [1816] and [1818], which unfortunately is not sufficiently diagnostic to indicate whether the two possible structures were contemporary. It seems likely, however, that these constitute the partial remains of Early Iron Age buildings. Similar buildings, albeit of a later (Middle Iron Age) date have been investigated at other sites, such as St Osyth, and have been interpreted as being storage buildings, perhaps granaries, and are generally associated with roundhouses, no remains of which was found here. Assuming this absence of domestic settlement is not the result of truncation/poor legibility, it would suggest a differing use for these structures here perhaps as simple shelters in an unenclosed settlement. A further five post-holes were recorded (but not excavated) in the vicinity of B2 which may also be part of a building (Fig. 7). If structural, these are most likely to be parts of a separate building.

A cluster of cut features was identified to the north of B1 and B2, comprising three small post-holes (G41) and two larger pits (G40; Fig. 6). Of these, pit [1584] contained a significant quantity of Early Iron Age pottery that may have been deliberately selected for deposition. A further distinct cluster of possible post-holes, G44 (Figs 6 and 7), was located to the south-east of B1 and B2. The irregularity of a number of the pits, and their pale, leached fills, may indicate that some were of natural origin. However, small quantities of Early Iron Age pottery were retrieved from several of the pits/post-holes ([1701], [1704], [1721] and [1731]) and a further sherd of undifferentiated prehistoric pottery was found in post-hole [1804]. Pit [1724] contained both Early and Middle Iron Age pottery and baked clay. Middle Iron Age pottery only was recovered from pits [1727] and [1731]. Other pits were also noted in this area and may perhaps be of similar date.

A roughly rectangular enclosure, ENC1 (Fig. 8) was located in the north-west corner of the site. This was 40m by

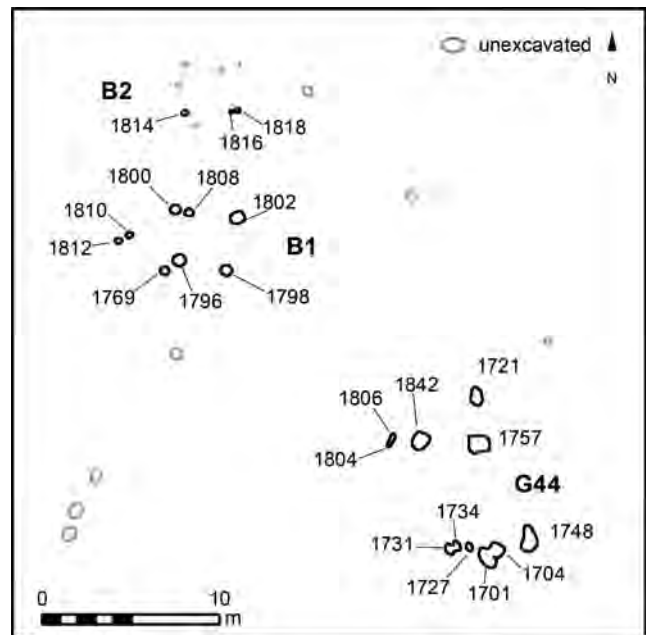


FIGURE 7: Building plans; B1 and B2

32m in extent, with an entrance in the south eastern ditch, situated on its own small promontory, with the land dropping quite steeply down to the north, east and west. Limited investigation of this enclosure, which was preserved *in situ* within the quarry scheme, suggests the enclosure ditch had Middle Iron Age origins and was backfilled in the Late Iron Age. The enclosure interior may have been divided into two by ditch [308]. The remaining internal features appeared to be natural, possibly tree boles and other root disturbance. The limited evidence available makes defining the use of this enclosure problematic, but it could possibly be the site of a small settlement/farmstead.

### Phase 2.2: Late Iron Age

The Late Iron Age remains at Hill Farm are characterised by an increased number of ditches and gullies representing the enclosure of the landscape and its organisation into an extensive rectilinear field system (Fig. 6). The earliest of the features within this phase comprise fragmentary remains of ditches and gullies in the centre of the site, in an area of a significant ditch junction which was re-worked on numerous occasions through the Late Iron Age and Early Roman periods.

The earliest component of this junction sequence (Sub-phase 2.2a) was a south-west to north-east boundary which survived as discontinuous lengths of ditch (G70, G73, G63). In some sections it had been recut as G56. Ditches G156 to the north-east and G132 to the south-west may be continuations of this boundary. The other element of the junction was a south-east to north-west orientated ditch, G158, which had also been recut. These ditches defined fields OA4 to the west and OA3 to the east with OA5 lying to the south. Within OA4, the presence of other fragmentary ditch lines running on the same orientation as the boundaries described above hint at the presence of further sub-division of this area. Towards the north-west corner of OA4 a 35m length of shallow (0.10m) ditch, G94, was identified running parallel to G158. To the south-west, on the very edge of the site, the presence of ditches G114, G145, G147



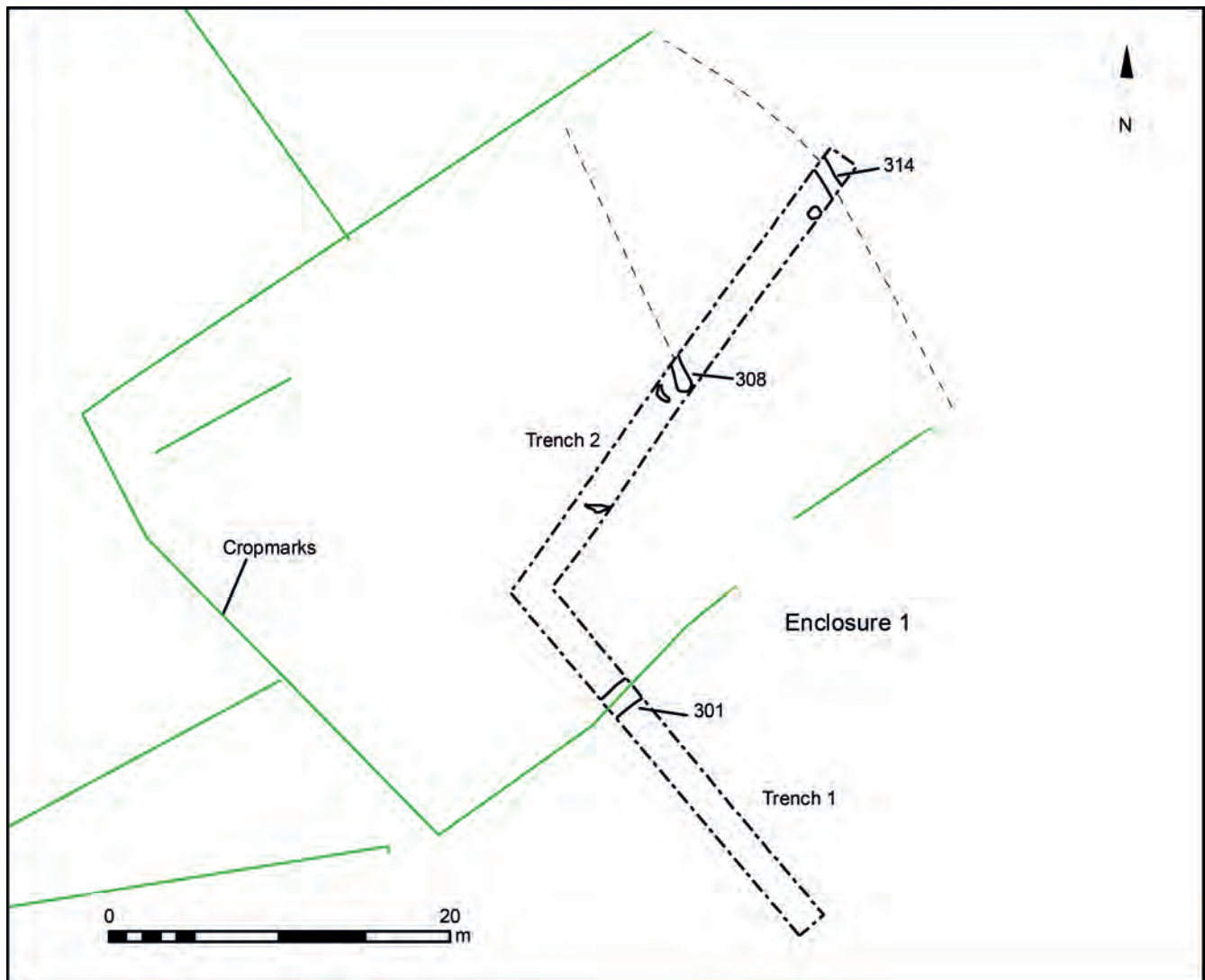


FIGURE 8: Plan of ENC1, showing cropmark

and G139, along with that of small pits (*e.g.* G169), would suggest a focus of activity in this area. In addition were other more widely dispersed pits (*e.g.* G98 and G100) and narrow cigar-shaped pits or fragments of ditch (*e.g.* G135 and G102).

OA3 lay to the east of OA4 and was defined by a shallow south-west to north-east ditch, G156, running on the same alignment as G63. An entrance to the field was located in the south-west corner and was 11m wide. Although the larger part of this field lies outside the excavation area, the cropmark plots suggest that OA3 may have been *c.*100m wide (east to west) and *c.*150m long (north to south), although it should be noted that the phasing of cropmarks beyond the feature is speculative. A sub-rectangular enclosure with internal features (Fig. 2), unexcavated, is also identifiable as a cropmark at the northern end of OA3, and may perhaps be associated with this phase.

To the south of OA3 and OA4, a further discontinuous ditch, G54, ran parallel with G56/63, *c.*10m to the south of it. Collectively these ditches may delineate an expansive trackway, R1. To the south and east of this lay an open area (OA5) in which only a single Late Iron Age pit, G197, was identified. Although there is little information which can be related to particular land uses, the almost complete absence of Late Iron Age features in OA5 would suggest that this part

of the landscape had a very different land use, perhaps utilised as pasture, and lay away from any foci of settlement. There is no evidence to suggest that the Middle Bronze Age barrow cemetery, located within OA5, retained any significance in this period, but it is conspicuous that it is situated within this much more open part of the Late Iron Age landscape.

Further minor alteration of the field ditches at the junction of OA3 and OA4 was undertaken (Sub-phase 2.2b) with the replacement of G63/56 and G158 with G57. The latter was T-shaped in plan and its north-west to south-east arm was on a slightly differing alignment to its precursor G158 and is likely to have extended beyond the northern edge of the site but was truncated by a later ditch. To the south-east it extended across the putative trackway R1. It may have continued as G45, although this feature is not well dated, perhaps with a 5m-wide entrance between the two. As noted above, many of the ditches were discontinuous, comprising broken lengths on the same alignment. A number were shallow, for example G70 and G73 were only an average of 0.14m deep. It would seem likely that the original ditches were continuous and that the lengths that have survived represent sections which were dug slightly deeper. Although the Phase 2.2b boundaries represent a change in the field system, there is a significant degree of continuance between this and the earlier phase and it is likely

that many of the Phase 2.2a ditches were retained with the layout on the north side of R1 remaining much the same with the north side of the track remaining as a boundary.

### Period 3: Roman

The Roman remains at Hill Farm comprise multiple phases of ditched field systems and discrete features dating from the Early (mid 1st to early 2nd century) through to Mid Roman (mid to late 2nd century), the Late Roman period is not represented in the archaeological record. Relative sub-phases can be broadly identified on the basis of stratigraphy, layout and artefact dating but cannot be closely dated.

There are a number of isolated and dispersed features such as pits and short sections of gully which are undated. Given the degree of activity of Roman date in the area it is likely that at least some of these are of Roman date.

#### *Phase 3.1: Early-Mid Roman*

##### Sub-phase 3.1a: Early Roman

The earliest of the Phase 3.1 features on the site is a small roughly rectangular enclosure, S24, c.4.8m by 6.1m (Fig. 9). Its enclosing gully was on average 0.5m wide and between 0.11m and 0.44m deep. There were no interior features, though two post-holes cut its fill. Given the absence of internal features and paucity of artefacts recovered from its fill, it would seem unlikely to have been a domestic building. The enclosure, S24, overlaid a Phase 2.2 ditch, G114. The latter had a small pit, [1345], cut into its upper fill which contained a jar with a hole pierced through its base. This vessel, of Late Iron Age or very Early Roman date, had been deliberately pierced. Such vessels have, in some instances, been linked to rites of termination although more recent analysis of a large corpus of examples from Elms Farm suggests they may have had more mundane uses. Given the location of the Hill Farm example, it is possible that in this instance its placement relates to the closure of ditch G114 prior to the construction of S24. Three further lengths of shallow gully/ditch were noted in the vicinity of S24; G137, G136, G134. No patterning to these features was readily apparent. Elsewhere ditches G199 and G177 may belong to this phase.

This phase, the activity of which was seemingly focused around S24, may represent a relatively short lived and localised change in the landscape in this part of OA4; S42 post-dated the Late Iron Age ditches in this area but pre-dated alterations undertaken as part of Sub-phase 3.1b. Their location would suggest that this area, which appeared to be a focal point in the Late Iron Age, had been abandoned and replaced by this new, but relatively short lived focus. The remainder of the field system is likely to have continued in use.

##### Sub-phase 3.1b: Early Roman

Whilst Phase 3.1a amounted to minor alterations to the existing landscape, Phase 3.1b represents a major re-emphasis of it (Fig. 9) but still shows some continuance on from the Late Iron Age layout (Phase 2.2), particularly in relation to the main south-west to north-east land division crossing the site. The trackway R1 was re-established, perhaps hinting that it had never fully gone out of use, while an additional route, R2, was added leading into it. The routeway R2 was orientated perpendicular to R1 and was an average of 25m wide. It was delineated to the east and west

by field boundary ditches. As with the previous period, the enclosed fields were situated to the north of R1 whilst the area to the south remained un-enclosed. R1 is delineated by field systems to the north and discontinuous shallow ditches to the south (*e.g.* G155) and is likely to have continued in use through the Roman period.

The field system to the east of R2 incorporated four open fields, OA6-OA9 (FS5, Fig. 9). OA9 enclosed an area 79m by 43m. The boundaries of this field were shallow and fragmentary, particularly to the south (G69) and east (G162) where later ditches ran along almost exactly the same line thus leaving only fragmentary lengths of surviving original ditch. The western boundary, G76, may have been recut by G75 at its southern end. Shallow lengths of gullies (G101, G78 and G65) were noted in this field and may represent the remains of further subdivisions. OA8 lay to the west, and comprised a trapezoidal enclosure 63m by 30m. The southern boundary of this enclosure was poorly defined and may have partially run along the alignment of later ditch G55. The western boundary was delineated by G159, a ditch running partially along the same alignment as G158 (Phase 2.2) and demonstrating cleaning/re-cutting. It is conceivable that OA8 and OA9 represent a single enclosure with G65 being a subdivision rather than a single boundary.

Situated to the north of OA8 and OA9, OA7 lay only partially within the site but the aerial photographic evidence would suggest that it covered an area of 0.4ha (c.73m by 75m). This group of fields could be entered from both R1 and R2, into OA9 and OA8 respectively, and OA7 from both OA8 and OA9 via an entrance at the northern end of G162.

To the east of this group of enclosures lay OA6 which, as with OA7, was only partially exposed within the excavation area. The western boundary was shared with OA7 and OA8 and there may have been a small entrance from the latter in the south-west corner, also the putative location of an entrance to R1. The southern boundary is thought to have been on the line of G156, retained from the earlier phase. Its eastern boundary lies outside the site, as defined by a cropmark, and may have also been retained from an earlier phase.

To the west of R2 the field system (FS6, Fig. 9) has a more fragmentary appearance. Three enclosures have been defined within it; OA10, OA11 and OA12. The latter two are relatively small enclosures, being 1673sq m and 707sq m area respectively. OA10 is larger and extends beyond the limits of the excavation area. The boundaries of OA11 were particularly fragmentary, being represented by two short lengths of gully to the north (G108/G110). In contrast, almost the full extent of OA12 can be identified, but no entrance is readily identifiable from either of the two adjacent trackways. Lengths of gullies were also identified within these enclosures which are thought to be Early Roman in date but which have no clear purpose or pattern. To the north of OA11 lies OA10, an open area containing few features.

Overall the Phase 3.1b field system comprises a series of enclosed fields situated to the north and west of the two trackways with more open areas beyond these. Although there is insufficient evidence to detail differing uses, the enclosures were perhaps associated with the management of stocks and crops. There is a general paucity of pits and other discrete or structural remains occupying the enclosure interiors which would suggest that the centres of domestic activity lay away



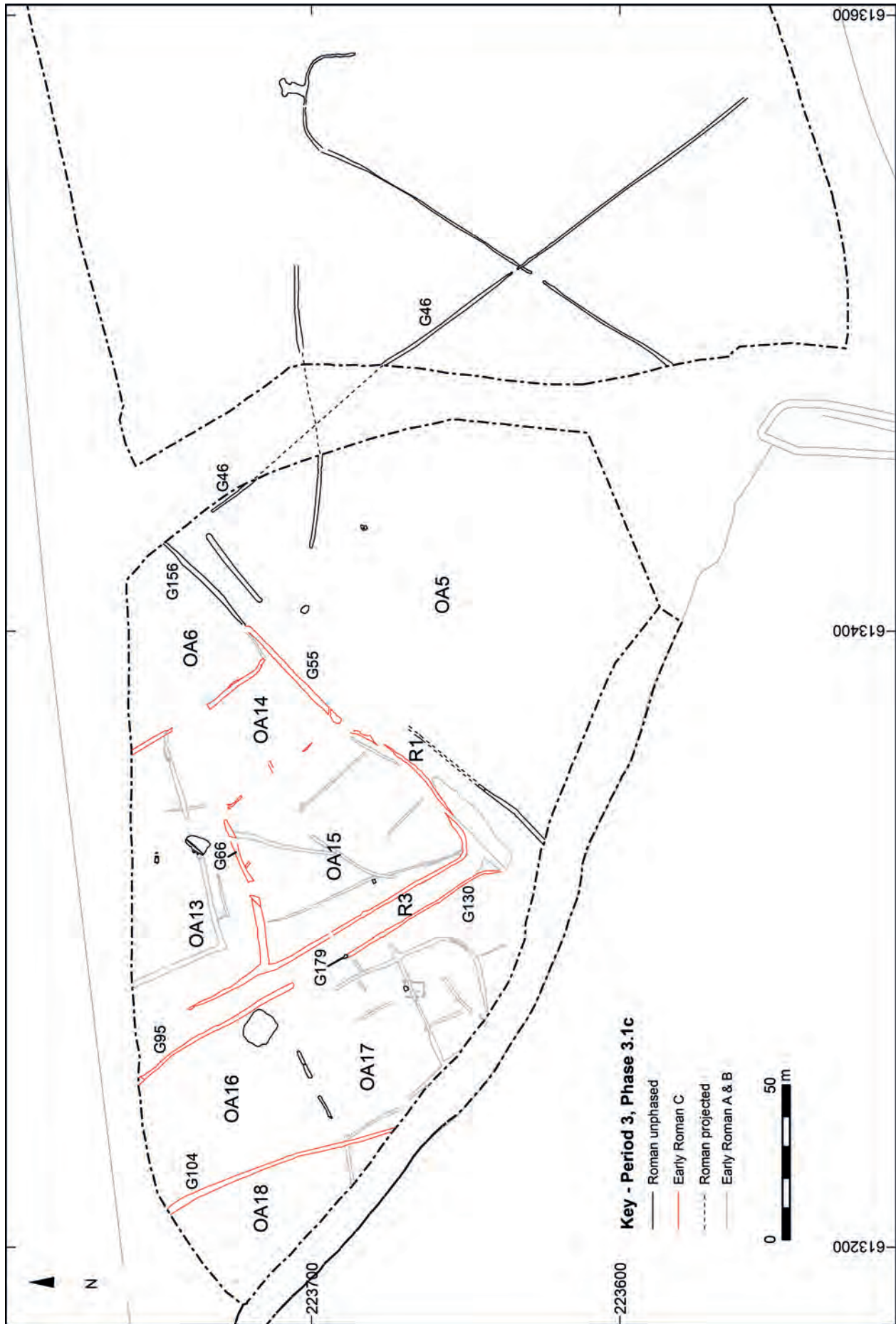


FIGURE 10: Period 3, Phase 3.1c  
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from the site, perhaps to the north of OA7 and accessed along R2, overlooking the valley. This was a new route and it would perhaps suggest that the putative settlement to the north was also newly established.

#### Sub-phase 3.1c: Early Roman

Whilst Sub-phase 3.1b would seem to represent a re-emphasis of the earlier landscape, its continuing maintenance, represented by Phase 3.1c of possible late 1st-early 2nd-century date, is a more major change, simplifying the field pattern and laying them out in a more regular form with larger open areas (Fig. 10), but retaining some parts of earlier phases (*e.g.* G156 and G55) and perpetuating the major landscape divide represented by trackway R1.

Trackway R2, previously a wide, ill-defined route between fields and open areas was formalised as R3, a 10m-wide track with ditches on either side. In order to carry this out the boundaries of the adjacent enclosures were replaced. To the west the small enclosures, OA11 and OA12 were replaced with a larger field, OA16/17, which was accessed from trackway R2. In contrast to the slightly haphazard arrangement of the earlier phase, OA16/17 appear more regularly laid out with roughly parallel sides and enclose part of what had previously been an open area. A pit by the entranceway to OA17, G179, contained a large (proportionally for the site) assemblage of animal bone which included pig teeth. OA18, to the west of OA16/17 lies only partially within the excavation areas, but the aerial photography plots would suggest that this was an unenclosed area, similar to that of OA5 to the south of R1.

The formalisation of R3 led to an increase in size of the adjacent enclosures on its east. OA14/15 replaced OA9/10 and was wider, having incorporated parts of R2. Only fragments of the boundary between OA14 and G15 survived, having been severely truncated by a subsequent recut of this ditch. The boundary between this and OA6 was retained but was recut in places. To the north of this OA13 (formerly OA7) was also enlarged, incorporating parts of what had been OA8/9. Some of the southern boundary of this enclosure was not identified but this is likely to have been the result of re-cutting removing all traces of it.

To the south of trackway R1 the area does not appear to be enclosed to the same degree, but the presence of some Roman ditches, particularly G46 which shares an orientation with the ditches in this phase, would suggest expansion of the field systems into the previously unenclosed south-east part of this landscape.

Overall, the field system in this phase implies a degree of continuance with that of the earlier phases, but with a greater degree of formality and regularity in its layout. It is this sub-phase which best fits the pattern of recorded cropmarks in the wider landscape (Fig. 1). These show two further trackways to the east of the site, on roughly the same orientation and dimensions as R3 and *c.* 160m and 250m from it. Although undated, it is possible that these were established at roughly the same time as R3 which would suggest that the formal enclosure of the landscape extended further in this direction. This is not the case to the west of the site: which seems to have remained an unenclosed landscape. As earlier, there is a general paucity of pits and other discrete and structural remains.

#### Sub-Phase 3.1d: Middle Roman (mid to late 2nd Century)

The Middle Roman landscape demonstrates a broad continuance with that of the previous phase, with key elements, such as trackway R3, retained and expanded upon (Fig. 11).

The field system to the west of R3 retained some of the same boundaries (*e.g.* G104 and G95) but with minor realignment of others, such as the replacement of G130 with G131. The internal divisions were shifted to re-apportion the interior into OA23/24. To the east of R3 the trackside ditch was extended northwards (G92) and an additional ditch (G90) was inserted across OA7 resulting in the creation of two enclosures (OA19 and OA20). One segment through this ditch, [880], contained a large amount of pottery of Middle Roman date as did a nearby pit [82], which would perhaps suggest domestic settlement in relatively close proximity. There is no clear entrance to these enclosures, or indeed between them, within the excavation area.

To the south of these, the arrangement of OA14/15 was minimally amended as OA21/22 with the retention of the same line for the western boundary, recut as G62, the addition of a new northern boundary, G60, and the re-cutting/cleaning out of the eastern boundary, as G58/59. Ditch G62 would appear to have fed into the remains of G55 which had silted up or been partially infilled by this phase. There was no clear entrance between these two enclosures and that to the north; they would appear to have been accessed from R1 only, perhaps indicating that the use of the landscape had changed.

There are some discrete features in OA22, including a group of small post-holes in the south-east corner (G161, not illustrated) which are cut through earlier features but contain no dateable material. No clear structural plan to these features is identifiable.

Overall, the Middle Roman field system shares a degree of continuity with that of the earlier phase though in terms of its layout there would appear to be some enlargement. This, coupled with the quantity and distribution of the pottery assemblage, and the appearance of discrete features, would suggest an expansion of a nearby settlement.

#### *Unphased Roman*

In addition to the ditches which can be identified as part of the phased field systems, there are some which do not fit into their layout. To the west of R1 these include, for example, G80, a ditch which pre-dates phase 3.1d (Middle Roman) but is on a significantly different alignment to the Phase 2.2 and 2.3 boundaries and as such can only be broadly assigned to 3.1a or b. To the east of the trackway, ditches G47 and G34 are also possibly Roman in date but equally could belong to an earlier or later phase. The latter curves at its eastern end, perhaps suggesting that it was respecting another feature, but none was identifiable.

#### Period 4: Early Saxon

There appears to have been a hiatus in activity in the landscape in the Late Roman period with no features of this date identified and the pottery chronology suggesting that the site had gone out of use by the 3rd century. The landscape was re-occupied in the Early Saxon period, perhaps by a small farmstead comprising a post-built building, a well and various dispersed pits. In contrast to the Late Iron Age and Roman

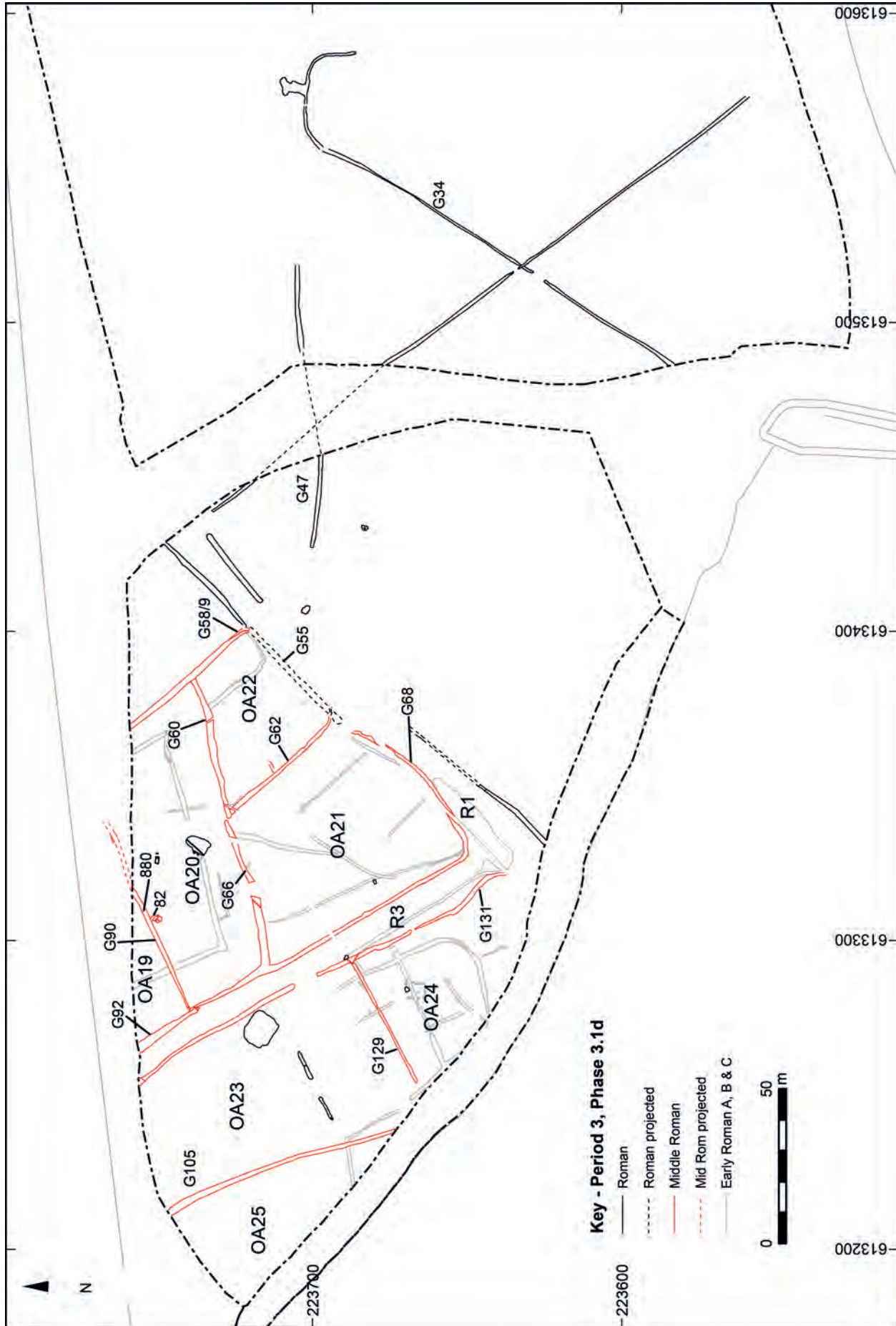


FIGURE 11: Period 3, Phase 3.1d  
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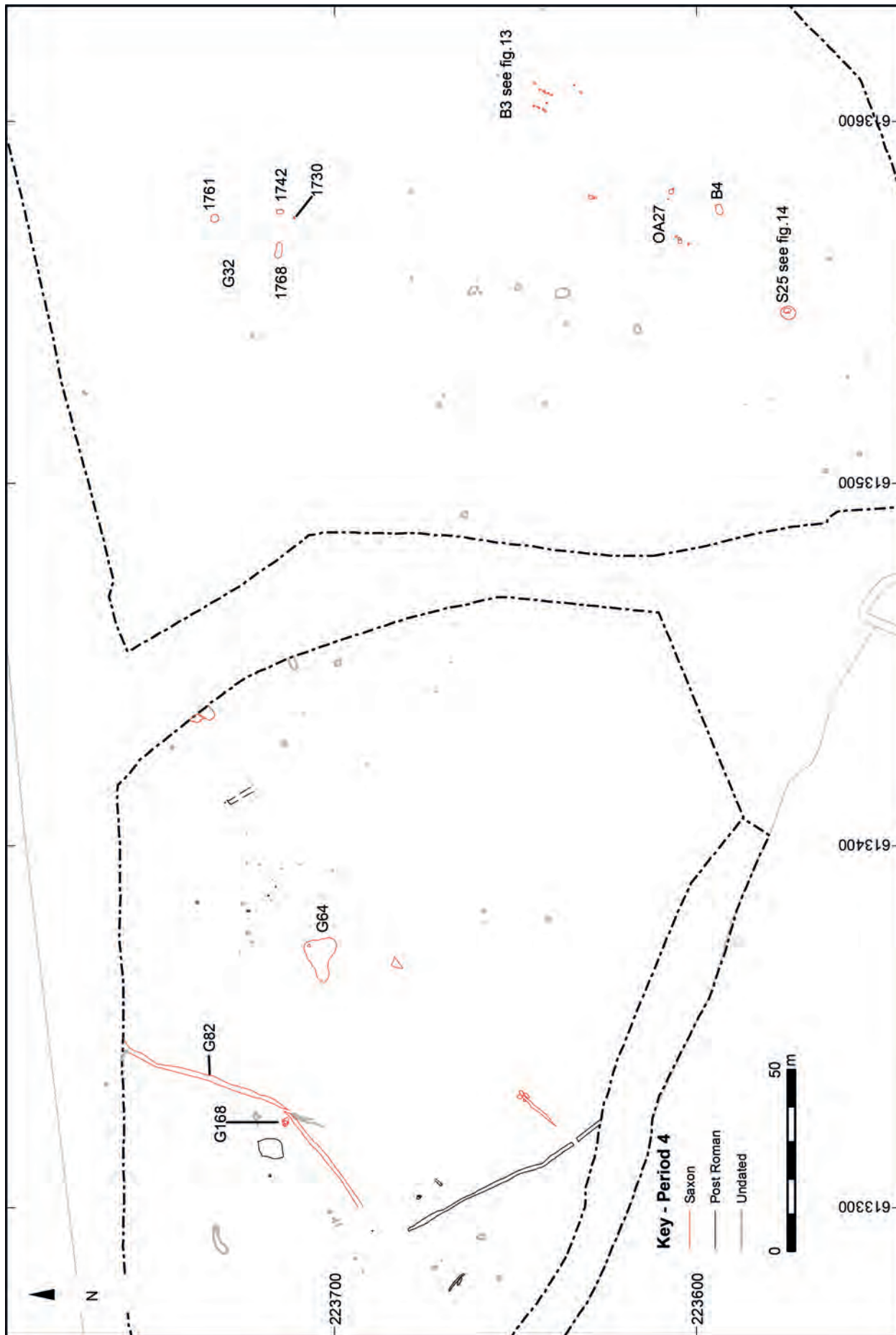


FIGURE 12: Period 4  
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field systems the Anglo-Saxon remains, whilst scattered, have a tendency to be located within the east of the site (Fig. 12), in relative proximity to the Middle Bronze Age cemetery.

Ditch G82, a slightly sinuous boundary feature, contained residual Roman and Anglo-Saxon pottery which, together with its relative stratigraphy, suggests that it belongs to this period. There are also hints at the continuing use of R3, with some Anglo-Saxon pottery being recovered from surface cleaning along its infilled ditches. However, the major landscape division R1 appears to have no longer been maintained but may well have still been a visible feature in the landscape. Overall, this would suggest that the majority of the field ditches had been abandoned and that there was no significant attempt to either re-use the older ditches or to impose a new enclosure system upon the landscape.

Post-built structure B3 was located on the edge of the Middle Bronze Age barrow cemetery (Figs 12 and 13). It comprised two parallel rows of five post-holes orientated north-east to south-west. Another, possibly related, post-hole [1780] was located to its north-east. Assuming this was part of the building, it would have measured c.5.7m by 4.8m. No post-holes were present that might have formed its end walls, although a single post-hole was located within the structure towards its south-western end. These structural remains were similar in appearance; most were between 0.45m and 0.58m across, with concave profiles, and between 0.11m and 0.26m deep. Their fills were also similar, comprising dark grey silty deposits, often with frequent charcoal flecks and fragments of baked clay. There was a paucity of dating evidence from the building with artefacts limited to a small sherd of what may be Early Iron Age pottery from [1776] and one sherd of Roman date from [1778], both of which may be residual. Given the location of the building away from the focus of the Roman landscape, it seems likely that this building is Anglo-Saxon in date.

Located to the south-west of B3, a group of pits and small pits/post-holes (OA27, Fig. 12), included a larger sub-rectangular feature, B4, within which three silty fills were recorded. Only a few Anglo-Saxon pottery sherds and a fragment of annular loomweight of a similar type and date to that retrieved from the well were collected, suggesting that they were perhaps contemporary. Although no characteristic post-holes were found in the base of the pit, its shape, combined with steep sides and an irregular but generally flat base, may

indicate that this was a sunken-featured building (SFB); a type of structure often found on earlier Anglo-Saxon settlement sites. The pits in its surrounding vicinity were shallow and varied in size, between 0.3m and 1.4m in diameter. Their fills were noted to contain fragments of charcoal and degraded burnt clay, residual prehistoric pottery and a piece of lava quern. Two deeper pits, also of this period, 0.65–0.75m deep, [1761] and [1768] (G32), were also identified to the north. These pits are likely to be associated with the nearby domestic settlement features.

A timber-lined Anglo-Saxon well (S25, G39) was located in the south of the site (Figs 12 and 14). Its construction cut comprised substantial pit [1669], 4.25m by 3.7m in plan, with steep sides. These were almost vertical on the northern edge where it lay above a well-shaft (1735). This had been lined with clay (1736) and then an additional timber lining (1737) inserted. The latter survived as a curving line of decayed timber around the western half of the shaft, perhaps the remains of a hollowed tree-trunk which had been held in place by several small vertical stakes, some of which survived only as voids. Two upright timbers (1838 and 1839) were located along the southern edge of the shaft, retaining a large horizontal plank (1840) that possibly ran the full width of the well. Plank (1840) may have been laid to support the southern side of the shaft/well during construction or perhaps to aid access to the well during its use. No timber lining was evident around the western side; although a horizontal timber was observed, extending at an angle into the well shaft. This part of the shaft under-cut the natural gravel and it is conceivable that it had suffered a collapse at some point. The presence of decayed timber pieces within the shaft fill may further attest to this.

The initial disuse of the well was represented by a slump of sand and gravel at the base of the shaft and was followed by further slumps and deliberate backfill deposits, including an extensive burnt layer. The remains of at least fifteen different pottery vessels were recovered from the well backfills, along with ceramic loomweights, baked clay fragments and several iron knives. The pottery dates to the 6th–7th centuries AD and the knives to the 6th–8th centuries.

Other features of probable Anglo-Saxon date were located in the north area of the excavation, at some distance from the well and SFB. These comprise circular pit [1761] and large, elongated ovoid feature [1768], situated approximately 16m apart (Fig. 12). The uppermost fill of the pit was notable for the abundant fragments of baked clay within it. The presence of small amounts of pottery and pieces of annular loomweight indicate an Anglo-Saxon date for this feature. Large pit [1768], to the south-west of [1761], measured over 4m long by 2m wide and was relatively deep at 0.75m. Post-holes were found at both ends of this feature, set within the irregular base, perhaps indicating that the feature had a structural function, such as a SFB. A small quantity of pottery of a similar type and date to that of pit [1761], well S25 and SFB B4 was recovered from this feature, suggesting that they might be contemporary. A post-hole ([1730]) and a pit ([1742]) were located to the east of [1768], neither of which produced datable material, although the pit did contain a quantity of baked clay which also occurred in fills of other Anglo-Saxon features. These features could be contemporary with the Anglo-Saxon pits, although features of prehistoric and possible Roman date were also found in the vicinity.

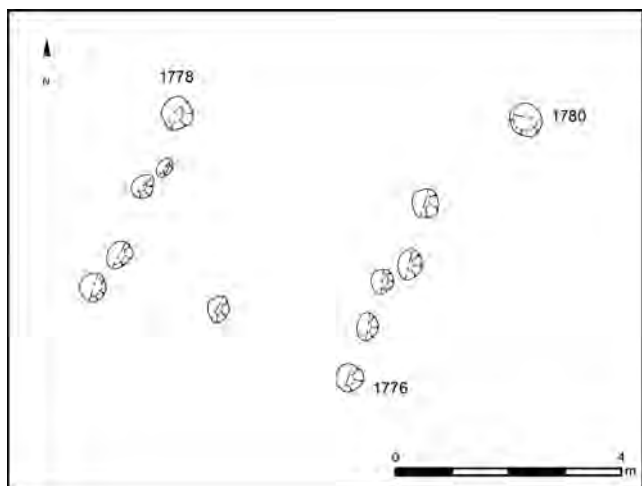


FIGURE 13: Period 4, Building B3



To the west of R1, within the former Roman enclosed landscape, there was limited evidence for Anglo-Saxon activity. A shallow hollow, G64, possibly a pond, some 17m long and 12m wide but only 0.13m deep, contained eighteen sherds of Anglo-Saxon pottery, representing two vessels and, as such, may have been open in this period. A small group of pits, G168, which includes pit [853], may also be of Anglo-Saxon date.

Following the 6th to 8th century there appears to have been a further hiatus in activity, although it remains possible that some of the undated features, which are shown on Figure 12, may be of a later period. However, no medieval features or artefacts were recovered during the excavations.

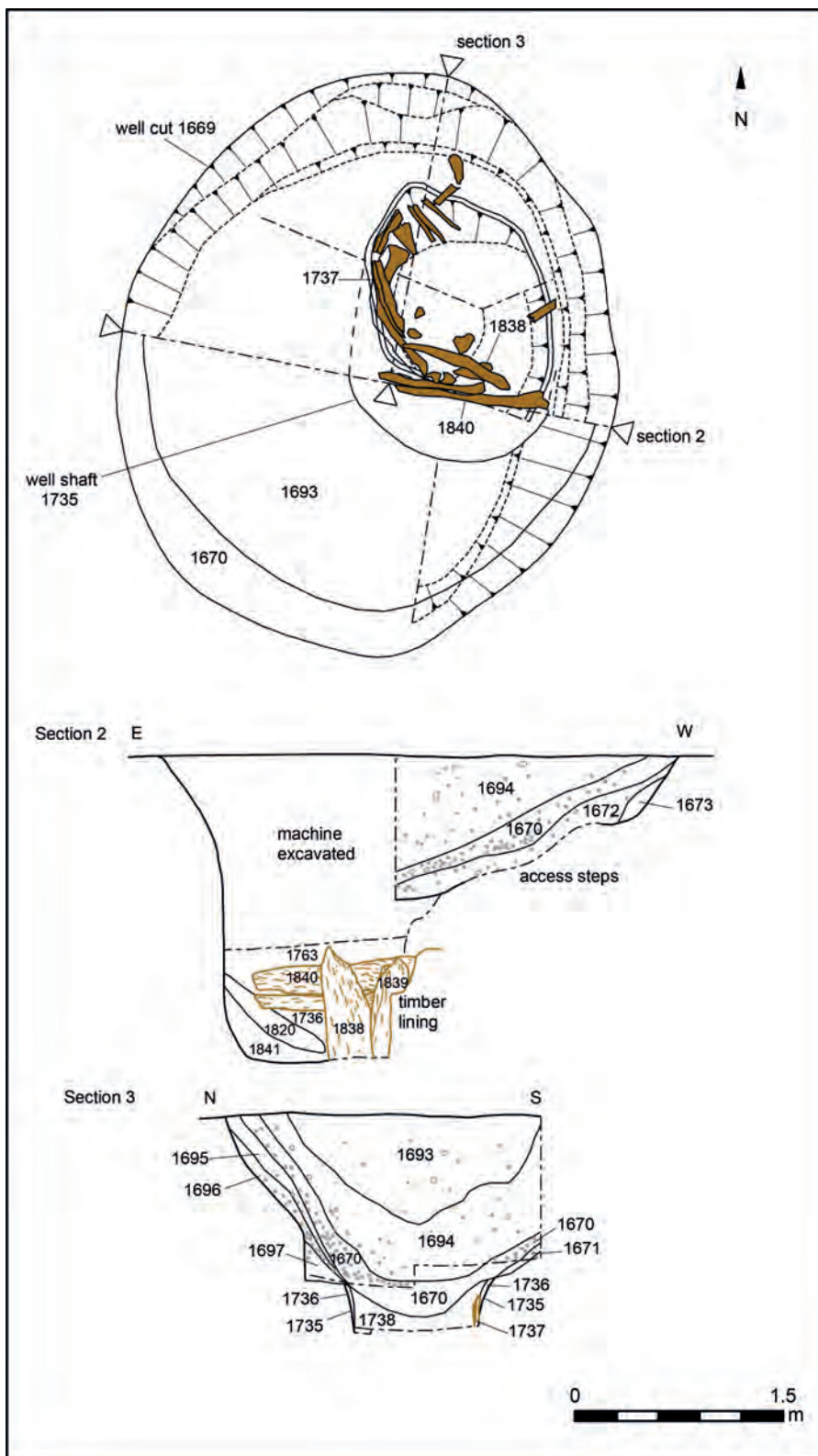


FIGURE 14: Period 4, Plan and Section of well S25

### Period 5: Post-Medieval and Modern Periods

Two main post-medieval features were identified on site; a boundary ditch, G37, and a trackway, R4 (Fig. 15). The boundary ditch is of particular interest, being on the same orientation and indeed the same line as trackway R1. This continuance of this alignment may suggest that the route of the trackway was still visible in the landscape or may reflect the fact that those farming the site in antiquity and later periods had the same concerns and knowledge of the land, the boundary distinguishing between differing soil types. A fourth trackway, R4, was superimposed on the landscape and its orientation bears no resemblance to the earlier field systems, which would suggest that they were no longer visible in the landscape. Part of this trackway survived as a field boundary until the 1960s.

Reference to historic mapping shows that the existing field system in the immediate area of the site had been established by the 1870s, at which time the Ordnance Survey depicts largely the same layout as that of the present day. The field boundary pattern in the area comprises two elements; curving or irregular boundaries and straight boundaries. The former may be of greater antiquity whilst the latter, like R4, represent later insertions which re-apportioned the landscape.

### FINDS AND ENVIRONMENTAL REMAINS

A range of finds and environmental remains were recovered, including prehistoric pottery, charcoal and bone from the cremation cemetery, pottery from the multi-phase field system and domestic artefacts from the Anglo-Saxon well. None of the finds are of high status and overall the assemblage is typical for field systems associated with rural settlements occupied over a long period of time.

#### Prehistoric Pottery by Nick Lavender and Nigel Brown (with Anna Doherty)

An assemblage of 1,606 sherds of prehistoric pottery, weighing 18.21kg was recovered. Two pits produced Beaker ceramics, constituting the earliest pottery from the site. The majority of the assemblage derives from Deverel-Rimbury (DR) urns associated with the Middle Bronze Age cremation cemetery on the eastern part of the site. Although much of the pottery from settlement features is fragmentary and poorly-dated, it generally seems to belong to later periods. It includes a few individual diagnostic sherds of both plain and developed/decorated Post Deverel-Rimbury (PDR) style, as well as some substantial groups of Early Iron Age date.

#### Beaker Pottery

Pit G106 (1531), within the western part of the site, contained a near complete Beaker vessel. The vessel's fabric has been characterised as similar to Brown's (1988) fabric C, a medium flint-tempered ware, but with occasional additional grog. The form of the lower body is bulbous and globular and the upper walls slope inward to a waist set close to the rim; to use Clarke's 1970 (146 and appendix 1) terminology, the neck is short and the rounded rim slightly everted. The base is markedly concave giving a footring effect. Two possible grain impressions were also noted beneath the base. Post-depositional damage has obscured the decoration which originally seems to have been cord or perhaps comb impressed; the interior surfaces also appear very carefully smoothed. The Beaker (Fig. 16.1) would be appropriate to Clarke's East Anglian Group (Clarke 1970, 39–

40; 46–152). Its form (Clarke 1970, *e.g.* figs 389–397) is typical of the East Anglian Group, and Beakers of this group generally display a restricted range of decorative schemes dominated by arrangements of horizontal rows of decoration (Clarke 1970, 146). The vessel can also be seen as belonging to Group E in Case's more recently published classification (Case 1993).

Another group of Beaker sherds were recovered on the eastern half of the site from pit G25 (1531). At least five different vessels are represented, including an example of all-over-corded decoration (Fig. 16.2) and another sparser horizontal impressed motif of coarse comb stabbed or cord impressed decoration (Fig. 16.3), as well as a very small sherd with diagonal incised line decoration (not illustrated). These finer decorative styles are mostly associated with fabric M: a slightly sandy grog-tempered ware although the incised line decoration is on a sherd of very fine sandy paste. Also represented in this group are some coarse flint-tempered wares containing quartz sand and only very rare grog-like inclusions. These are associated with paired fingernail impressions below a horizontal groove on a thick-walled vessel of fairly bulbous profile (Fig. 16.4).

The depositional context of both Beaker groups is of some interest. Although the vessel from [1259] is substantially complete it does not appear to have been interred intact, as half of the upper part is missing. Furthermore, one side of the vessel appears to have been severely burnt and the vessel surfaces are in relatively poor condition. Whilst evidence of breakage and burning may be the result of practices of rubbish disposal, they could equally indicate deliberate damage as part of a structured pattern of deposition and the feature has been interpreted as being a possible Beaker burial. The burning is less characteristic of the Beaker period; it is not, for example, paralleled locally, either amongst the collections from east and north Essex held in Colchester Museum, or by more recently excavated vessels like those from Langford (Brown 1997), Ardleigh (Brown 1999), or Elms Farm (Brown 2001).

The group from pit [1531] is of note because it is located in close proximity to G1, a ring-ditch in the later, Middle Bronze Age, barrow cemetery. This strengthens the argument that the practice of depositing Beaker pottery may have been associated with locations regarded as special or sacred and which continued to be viewed in such a way over long periods of time.

#### Deverel-Rimbury (DR) Pottery

Most of the prehistoric pottery dates to the Middle Bronze Age and a large proportion of the assemblage by both sherd count and weight comes from urns associated with the cremation cemetery C1. In total, seven barrel/bucket urns (*e.g.* Fig. 16.5 and 6) and one globular urn (Fig. 16.7) have been identified as cremation vessels. Four vessels (not illustrated) had been very severely truncated and only their bases survive. A semi-complete bucket urn with a fingernail impressed cordon was also found nearby in pit [1645]. The vessels were mostly associated with grog-tempered fabric M with some examples in flint-tempered fabric D.

The Middle Bronze Age material belongs to the Ardleigh Group of the Deverel-Rimbury tradition but lacks the lavish decoration of the Ardleigh, White Colne (Brown 1999) and Brightlingsea (Brown 2008) assemblages. For example, there are no rusticated vessels, and none of the surviving rims has the 'horseshoe handles' that typify the Deverel-Rimbury

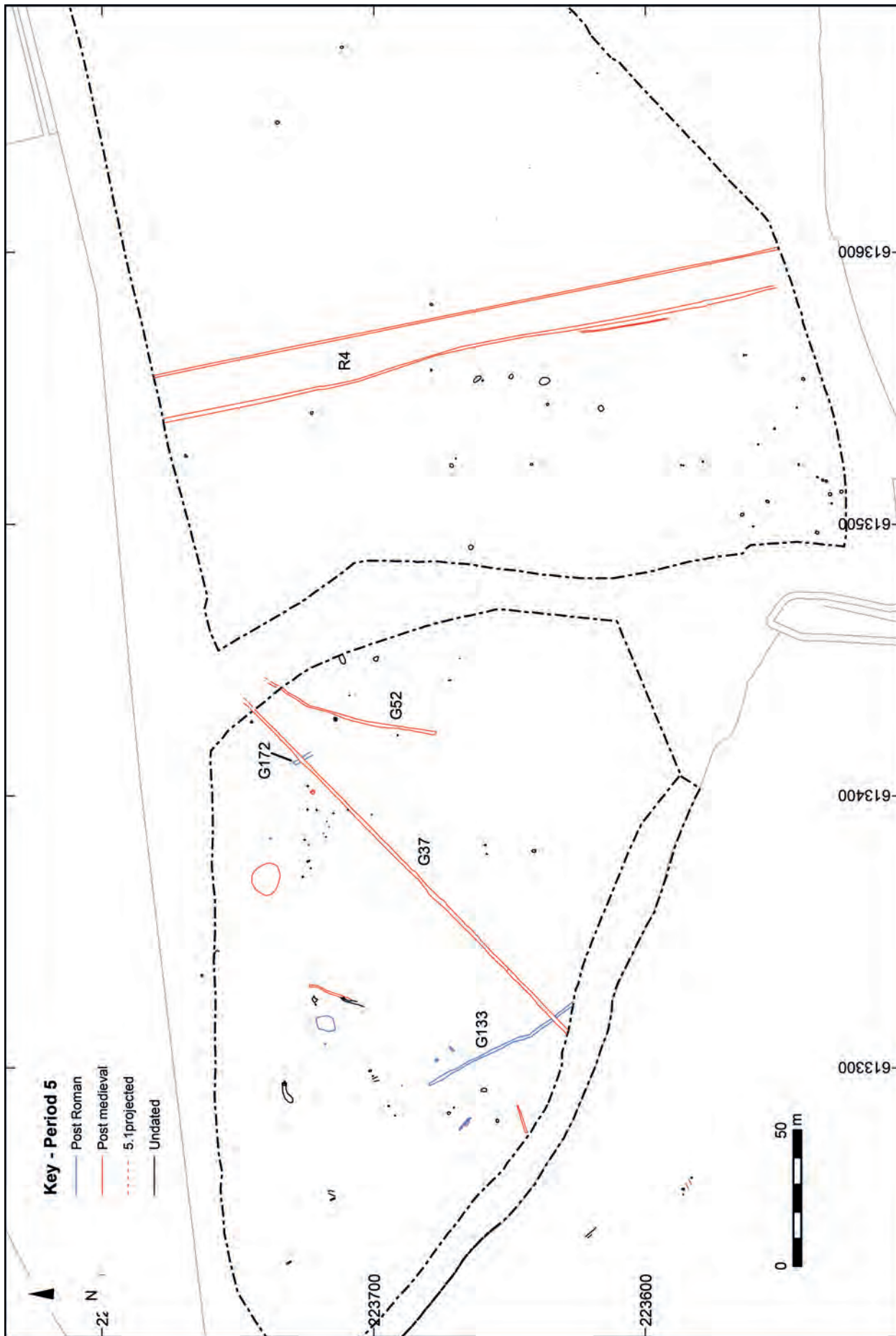


FIGURE 15: Period 5  
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pottery from north-east Essex (Brown 1999). Whilst it must be borne in mind that the burials have been heavily truncated, decoration of the bucket/barrel urns appears to be limited to single rows of finger impressions (Fig. 16.6). Only one vessel with a cordon was recovered: that from pit 1645 (Fig. 16.8). Small, oval bosses on the cremation vessel from [1515] represent the only other type of adornment on the coarser vessels (Fig. 16.5), although large post-firing perforations were noted on all three of these vessels.

The globular urn from cremation [1532] (Fig. 16.7) is, by contrast, highly decorated with large chevrons of diagonal incised lines between the neck and the waist. Below this, incised horizontal lines fill most of what survives of the pot, although there appears to be a plain area below this. A small perforated lug handle, similar to examples from Ardleigh (Brown 1999, fig. 63.66) and Colchester (Brown 1999, fig. 78.172), springs from just below one set of chevrons.

Finger-impressed Middle Bronze Age sherds were also recovered from ditch [1636] (G35), which appears to mark the northern edge of the ring-ditch cemetery. Three unurned cremations lay beyond it, which may indicate that its location is fortuitous. However, the relatively fresh condition of the pottery suggests that it is contemporary with the cemetery. Only isolated sherds of Middle Bronze Age pottery were recovered elsewhere on the site.

The funerary pottery assemblage is dominated by plainer vessels within the repertoire of the Ardleigh DR tradition. However, it is likely that this is the result of chronological factors, with vessels becoming plainer over time, rather than being indicative of lower social status or differences in cultural expression. It has been suggested that some of the most distinctive Ardleigh decorative traits, such as applied 'horseshoes' and comb impressions, may have developed out of Late Neolithic/Early Bronze Age ceramic traditions and likely represent earlier DR types of the early to mid-2nd millennium (Brown 1999, 78). At Ardleigh one of the ring ditches produced notably plainer urns, thought to belong firmly in the 2nd half of the 2nd millennium and also comprised a mixture of grog-tempered and flint-tempered fabrics, whereas most of the other rings were more heavily dominated by grog-tempered wares (Brown 1999, 78). The idea that DR pottery in this region became progressively plainer over time is supported by some relatively late radiocarbon dates associated with plainer wares from Grimes Graves (Longworth *et al.* 1988).

By contrast, the single globular urn in the assemblage is highly decorated with a finer and more highly burnished fabric. Such vessels are relatively rare in cemeteries of the Ardleigh group although whether burial in this 'better' urn indicates the status of the individual can only be conjectured; it may simply be that these finer, slightly smaller vessels were generally considered less functionally suited to the burial rite but were occasionally used as a matter of personal choice.

Another aspect of the funerary pottery which is of some note is the presence of post-firing perforations on three vessels. This is quite a common feature on DR pottery. In some vessels where holes are placed at regular intervals below the rim, it has been suggested that they may have served to secure tied coverings (Macpherson-Grant 1992, 60). In the current assemblage the perforations tend to occur on either side of possible old breaks, perhaps suggesting they are related to repair. This also seems to be the case in many illustrated vessels

from the Ardleigh cemeteries (Brown 1999, 80; and *e.g.* figs 54.6; 56.9; 58.29; 61.60; 63.72; 65.92; 66.100; 68.115; 70.121; 71.130; 73.137; 74.140). If this is the case, it is of some interest as it suggests that cremation vessels were not new at the time of deposition but perhaps represented the personal possessions of the dead or their households.

#### *Post Deverel-Rimbury (PDR) Pottery*

Very little diagnostic Late Bronze Age pottery was recovered from the site. Potentially the earliest Post Deverel-Rimbury material comes from post-hole [1798], a component of B1. This comprised five sherds from a barrel urn/hooded rim jar (Fig. 16.9) associated with some badly abraded and burnt fragments from a Form A round-shouldered jar (Fig. 16.10), all in fabric D. However, this feature and other elements of the same building contained some sandier flint-tempered wares (fabric E), suggesting that the PDR pottery may be residual in an Early Iron Age structure.

A small Late Bronze Age pottery group from pit G180 [1352] (Fig. 16.11–13) includes sherds of fine bowls and cups and coarser bowls, which might indicate a slightly more developed PDR plain ware assemblage which could date to the 9th century or later. An unstratified jar rim (Fig. 16.14) represents the only decorated PDR element from the site, perhaps suggesting a hiatus of activity in the period *c.* 800–600 BC.

#### *Early Iron Age*

The bulk of the Early Iron Age material comes from pit [1584] (G40) which lay to the north of B1 and B2, and comprises nearly 10% of the whole site assemblage by weight. Fairly substantial parts of at least eleven different vessels are represented, mostly in flint-tempered fabrics D and E. These include a highly decorated bowl (Fig. 16.15), featuring lines of impressed dots appearing in columns of variable length. It can be closely paralleled by bowls from Linton, Cambridgeshire (Fell 1953, figs 5. A and B). A second bowl of similar but slightly more sinuous profile is undecorated but highly burnished (Fig. 16.16). Also present are two lids (Figs 16.17–18) including one with a pronounced internal lip. The coarse wares, which comprise 80% of the feature assemblage, are all in flint or sand-and-flint-tempered fabrics D, E and F and appear to be from a large number of vessels. Eight rim sherds, all from different coarse jars, are present (represented by Figs 16.19–21). Where identifiable, these come from Forms D or E; round or slack-shouldered jars with short upright necks, often with a pronounced lip on the rim interior. Some have evidence of light finger-tipping on the tops of the rims, although this might constitute part of the forming process rather than deliberate decoration. The rest of the pottery in this group consists of small bodysherds from a number of different vessels.

There is some evidence that the pottery in pit group [1584] represents deliberate selected material since fine and decorated pots are represented by the largest sherds. Continued reverence of the cemetery may account for the small quantity of Late Bronze Age pottery and the larger deposits of Early Iron Age material. Equally though, material of this type could be produced in primary dumps of fairly freshly broken pottery.

Less diagnostic material of possible Early Iron Age date was found across a range of other features on the site but none were large groups. This assemblage provides some limited

evidence that activity on site may have extended into the Early/Middle Iron Age, including a small quantity of material from the site in sand-tempered fabrics G and I as well as two examples of pedestal bases (e.g. Fig. 16.22).

*Catalogue of Illustrated Pottery* (Fig. 16):

Beaker (Phase 1.1)

Fill [1260], pit [1259] (Open area OA2)

1. Near-complete short-necked bulbous Beaker with all over comb/cord decoration in horizontal rows. Fill 1260, pit 1259 (OA2)

Fill [1534], pit [1531] (Cemetery related pit group C2)

2. Shoulder of bulbous beaker with horizontal all-over cord impressions
3. Beaker bodysherd with sparser horizontal cord/comb-stab decoration
4. Thick-walled Beaker bodysherds with paired fingernail decoration

Middle Bronze Age, Deverel-Rimbury (Phase 1.2)

Cremation Vessel [1513], cremation [1515] (Cemetery C1)

5. Upper half of plain Barrel Urn with two low unpierced lugs/bosses. Three post-firing perforations are present above and below one of the lugs

Cremation Vessel [1565], cremation [1564] (Cemetery C1)

6. Upper half of Bucket Urn with horizontal row of finger impressions below the rim and similar finger impressions along the rim. At least two large post-firing perforations below the band of decoration

Cremation Vessel [1530], cremation [1532] (Cemetery C1)

7. Upper half of Globular Urn with pierced lug handles and complex geometric decoration formed by diagonal incised lines meeting in chevrons on the upper body, bounded by horizontal incised lines on the widest part of the vessel

Single fill [1644], pit [1645] (Cemetery related pit group C2)

8. Barrel Urn with slightly out-turned rim and applied horizontal finger impressed cordon. A single post-firing perforation was noted close to the rim

Late Bronze Age, post Deverel-Rimbury (Phase 1.3)

Residual in Phase 2.1 Context [1799], post-hole [1798] (Building B2)

9. Barrel Urn/hook-rim jar with finger impressions close to rim
10. Plain shouldered jar

Single fill [1351], pit [1352] (Open area OA2)

11. Sherd from round-bodied fine cup, upright round topped rim smoothed surfaces with traces of burnish surviving. Fabric A
12. Upright rounded rim from thin walled fine jar, smoothed surfaces. Fabric B
13. Everted rounded rim of round bodied coarse bowl. Fabric C

Surface cleaning context [584]

14. Upright flat topped rim of coarse jar, 'cable' decoration on top of rim. Concretion on exterior. Fabric D

Early Iron Age (Phase 2.1)

Single fill [1583], pit [1584] (Open area OA1)

15. Fine ware bowl with carinated shoulder and upright rim, featuring columns of circular impressed decoration across the shoulder
16. Plain fine ware bowl with slightly more sinuous profile
17. Fine ware plain lid
18. Coarser lid with pronounced internal lip
19. Shouldered jar with upright rim featuring slight internal lip at the rim
20. Shouldered jar with upright rim featuring slight internal lip at the rim
21. Shouldered jar with upright rim featuring slight internal lip at the rim

Early and Middle Iron Age (Phase 2.1/2.2)

Single fill [1732], post-hole [1731] (Open area OA1)

22. Pedestal base

**Late Iron Age and Roman Pottery** by Scott Martin

(with Anna Doherty)

The excavations produced a total assemblage of 4,855 sherds, weighing 50.6kg, of Late Iron Age and Roman pottery the majority of which was from the west of the site, reflecting the distribution of the Late Iron Age and Roman features. Although the condition of the assemblage was almost invariably poor with few well-dated sealed groups, it nevertheless constitutes one of the larger groups of stratified pottery to be excavated from a rural site in east Essex. All of the pottery from the site fits comfortably into a relatively narrow Late Iron Age to mid-Roman date range with nothing that is certainly later than the second half of the 2nd century AD.

The pottery has been classified using the Chelmsford typology published by Going (1987, 2–54), supplemented by the *Camulodunum* type series (Hawkes and Hull 1947, 215–273) and Monaghan's typology for northern Kent (Monaghan 1987) where forms were present that were not included in the former. Mnemonic fabric codes (shown below) are used for consistency as not all of the fabrics or fabric groups are found in Going. A total of twenty-two fabrics or fabric groups are identified (numbers in brackets after Going 1987), although not all of these were represented in stratified contexts.

AMPH	Amphora fabrics	
BB	Black-burnished type fabric	
BB1	Black-burnished ware category 1	(40)
BB2	Black-burnished ware category 2	(41)
BSW	Black-surfaced or Romanising grey wares	(45)
BUF	Unspecified buff wares	(31)
COLB	Colchester buff ware	(27)
COLBM	Colchester buff ware mortaria	(27)
COLC	Colchester colour-coat	(1)
ESH	Early shell-tempered ware	(50)
GRF	Fine grey wares	(39)
GRMIC	Grey micaceous fabric	
GROG	'Belgic' Grog-tempered wares	(53)
GRS	Sandy grey wares	(47)
LRC	Lower Rhineland colour coat	(6)
MICW	Misc. Iron Age coarse wares	
NKG	North Kent grey wares	(32)
RED	Misc. oxidised red wares	(21)
STOR	Storage jar fabrics	(44)
TN	Terra Nigra	
TSG	All samian ware	(60)
UCC	Unspecified colour coats	
WFS	White fine sandy ware	

The assemblage is divided into three broad ceramic phases (Table 3). These were based on the spot-dating of the pottery itself and do not strictly correspond with the stratigraphic phasing. However the first ceramic phase (Late Iron Age) broadly accords with stratigraphic Phase 2.2; the second (Early Roman) with stratigraphic Phase 3.1a–c; and the third (mid Roman) with Phase 3.1d.

*CP1: Late Iron Age (early to mid-1st century AD)*

The range of fabrics reaching the site is very narrow in this period, with 99% of the pottery consisting of grog-tempered wares. Very coarse grog-tempering generally appears to have been reserved for large storage vessels, while the finer fabrics

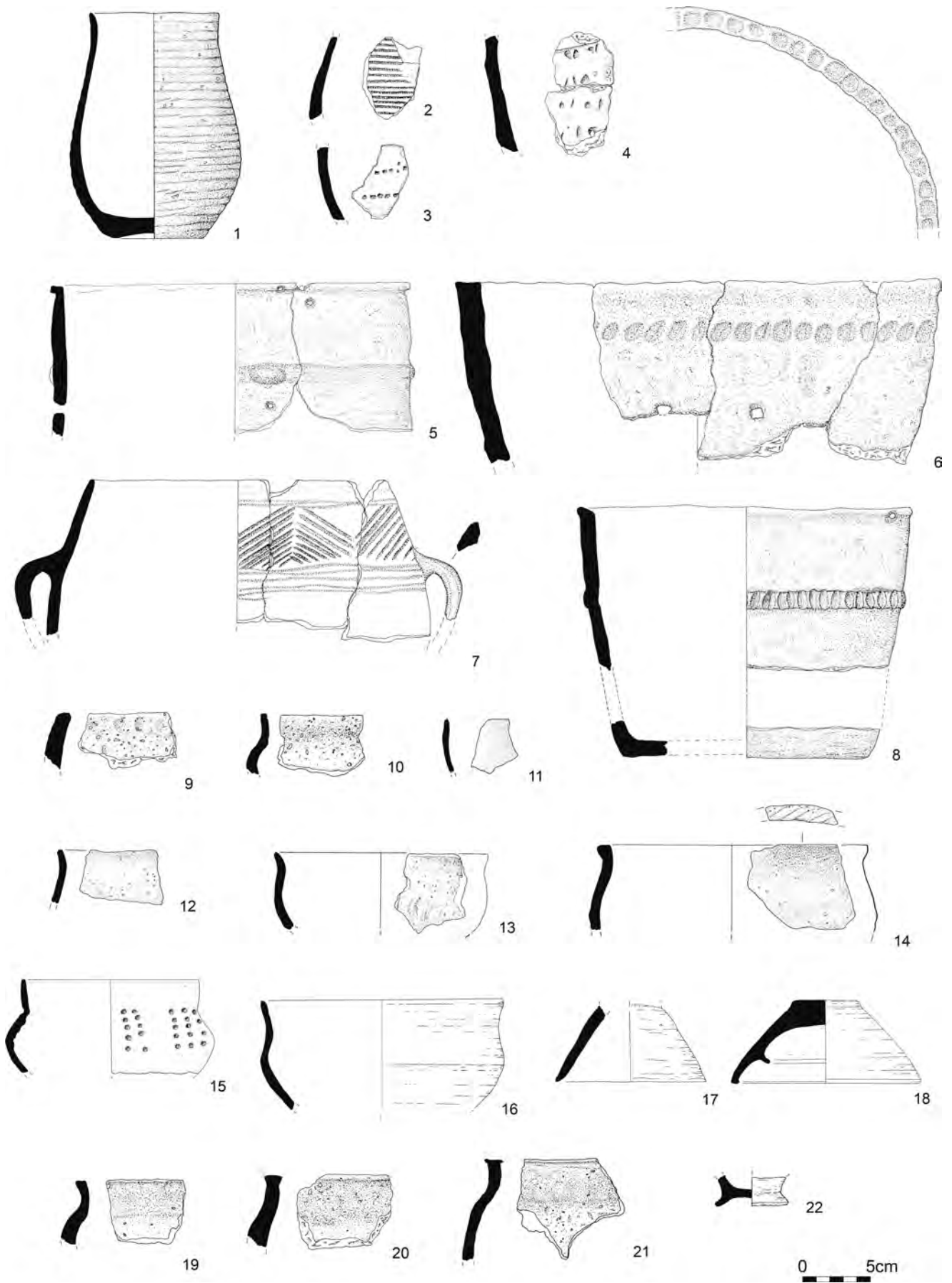


FIGURE 16: Prehistoric Pottery

Period	Sherd Count	Weight (kg)	% Weight	Average Sherd Weight
Late Iron Age	379	4.445	10.47	11.7
Early Roman	942	9335	21.99	9.9
Mid-Roman	2427	24592	57.75	10.0
Unassigned	349	4.149	9.77	11.8
<b>Totals</b>	<b>4107</b>	<b>42.441</b>	—	<b>10.3</b>

TABLE 3: Quantified stratified Late Iron Age and Roman pottery by period

Fabric	CP 1			CP 2			CP 3		
	Sherds	Wt (g)	% Wt	Sherds	Wt (g)	% Wt	Sherds	Wt (g)	% Wt
AMPH	—	—	—	16	608	6.51	35	950	3.87
BB1	—	—	—	—	—	—	2	59	0.24
BB2	—	—	—	—	—	—	33	429	1.75
BSW	2	17	0.38	142	1045	11.19	530	3640	14.84
BUF	—	—	—	6	5	0.05	2	5	0.02
COLB	—	—	—	35	159	1.70	101	692	2.82
COLC	—	—	—	—	—	—	22	68	0.27
ESH	—	—	—	1	8	0.08	—	—	—
GRF	—	—	—	108	1106	11.84	329	1611	6.57
GRMIC	—	—	—	4	29	0.31	1	8	0.03
GROG	376	4416	99.34	268	3275	35.08	204	3310	13.50
GRS	—	—	—	261	1867	20.00	949	9291	37.90
LRC	—	—	—	—	—	—	1	2	0.00
MICW	1	12	0.26	4	43	0.46	—	—	—
NKG	—	—	—	1	4	0.04	21	82	0.33
RED	—	—	—	2	2	0.02	12	74	0.30
STOR	—	—	—	64	935	10.01	140	3935	16.05
?TN	—	—	—	4	35	0.37	—	—	—
TSG	—	—	—	22	195	2.08	31	302	1.23
UCC	—	—	—	—	—	—	13	53	0.21
WFS	—	—	—	4	19	0.20	1	1	0.00
<b>TOTALS</b>	<b>379</b>	<b>4445</b>	—	<b>942</b>	<b>9335</b>	—	<b>2427</b>	<b>24512</b>	—

TABLE 4: Quantification of pottery fabric types from stratigraphic contexts by ceramic period (CP)

tend to be used for a variety of forms, mostly associated with cooking. Gallo-Belgic wares are absent from contexts of this period, while Roman influences in general, are few and far between. There is a suggestion of the first signs of the use of sand-temper alongside grog, in the form of several sherds in Going's fabric 45; these, however, form a very minor assemblage component. There is also a notable absence of early shell-tempered ware.

The range of forms is also very limited and dominated by jars. In the finer grog-tempered fabrics, the range of forms present includes bowls corresponding in form to *Cam.* 211 and a range of jar forms including *Cam.* 217 types. A *Cam.* 229 type vessel (G15) was also present in a later context but is certainly pre-Flavian or even pre-conquest in date. Other jar forms are comparable to those found in the Chelmsford series and include G15, G16, G19, G4.2 and G23.3 types. Large coarsely grog-tempered body sherds which were probably parts of storage jars were recorded but few diagnostic sherds are present. The only beaker forms are imitation Gallo-Belgic butt beakers. Platters, also imitating Gallo-Belgic prototypes, are present as possibly residual material in later contexts.

A grog-tempered jar, with a single hole, pierced *post cocturam* through the base was recovered from the upper fill of small pit [1345] (Fig. 9). Because the top half of the vessel is missing, it cannot be closely dated, although on fabric grounds alone, it must date to either the Late Iron Age or very early in the Roman period. Vessels of this type are fairly frequently encountered in assemblages of Late Iron Age and Roman date. They have a wide distribution both in Essex and beyond. Local examples are known at sites including Brightlingsea, Coggeshall, Woodham Walter, Kelvedon and Nazeingbury (Martin 1996, fig. 8.6; Gurney 1988, fig. 9.18; Rodwell 1987, fig. 22.14; Rodwell 1988, fig. 88.74b; Huggins 1978, fig. 14.70).

Only a small proportion (c.10%) of the pottery was stratified in Late Iron Age contexts; with much residual material in later contexts, since the grog-tempered wares would have been in decline by the Flavian period. Relatively few diagnostic Late Iron Age sherds were recovered, but it is worth noting that nothing in the assemblage is necessarily of 1st-century BC date and most forms identified are probably 1st-century AD types.

*CP2: Early Roman (mid 1st to early 2nd century)*

While a fairly wide range of fabrics are present, the mass of pottery reaching the site from the mid-1st century onwards comprised locally-made black-surfaced or 'Romanising' wares (11%) and sandy grey wares (20%). Although some of the grog-tempered wares may be residual, they make up a high proportion of fabrics in earlier Roman groups (35%) and probably continued to be made and used in some quantity at least until the early Flavian period. The small amounts of Gallo-Belgic pottery (less than 1%) recovered from the site could belong to the earliest Roman phases or may be residual Late Iron Age pieces. Some of the Colchester products recovered from the site almost certainly belong to this period. Romano-British traded wares from outside Essex are barely discernible but include a small amount of North Kent grey ware (less than 1%). By and large, these seem to be the only Romano-British traded wares reaching the site before the mid-2nd century. Small quantities of samian (2%) and Dressel 20 amphorae from Southern Spain (6%) indicate links with the wider Roman world, albeit on a very small scale. While the presence of fine tablewares can be shown to be very low in this period, this is typical of rural sites in Essex (Doherty 2013, 130–131).

The range of jar forms increases considerably with the greater Romanisation of the assemblage through time. Many forms correspond closely to those in the Chelmsford typology. A variety of necked jar types is present and includes G16, G17, G19 and G20 types. Neckless types, including G3, G11 and G4, are present but much rarer. The range of forms represented include a number of forms which would not be out of place in pre-Flavian and Flavian groups (*e.g.* G8.1 and G29.1), while the presence of G23 and G19 vessels takes the assemblage into the 2nd century. Storage jars now show more Romanised influences and are comparable to the G44 types at Chelmsford. Other open forms present include a lid (K6.1) and a carinated bowl (C16). Gallo-Belgic *Cam.* 113 butt beakers are present in very small numbers. Neckless H1 types in locally made fabrics replaced these during the Early Roman period. Colchester buff ware flagons also make up a tiny proportion of the assemblage in this period (1%).

Several larger context groups assigned to this period contained high levels of grog-tempered pottery and small amounts of Romanised grey wares which may signify a pre-Flavian or early Flavian date (although, the condition of these sherds may suggest that residuality is a problem in such groups). Overall CP2 includes a range of forms stretching from the pre-Flavian to early 2nd century.

*CP3: Mid-Roman (mid to late 2nd century)*

During the mid-2nd century, the range of pottery reaching the site changed. A wider variety of fabrics and a significant increase in the scope and relative quantities of Romano-British traded wares are apparent. Sandy grey wares became the dominant fabrics making up 37% of the assemblage. Grog-tempered pottery wares declined in this period but still account for 13% of the total assemblage. Although grog-tempered storage jars were probably still current at this time, it is likely that much of this total is residual. The range of Colchester products now includes buff ware flagons and mortaria (2%), as well as a small number of colour-coated beakers (less than 1%). Other notable fabrics present include BB1 (less than 1%) and BB2 (1%) whilst North Kent grey wares continued to be

present in small quantities (still less than 1%). Leaving aside the Dressel 20 amphorae and Spanish Salazon types, all of the imports comprise tableware, including very small numbers of Lower Rhineland colour-coated ware beakers (less than 1%).

The range of jar forms present in mid-Roman contexts shows a number of changes. Typical mid/late Roman jar forms are much in evidence, especially the G9 and the G24 types, although there are also a large number of residual Early Roman necked jar forms. Of particular interest is the presence of G11.1 jars, which is one of the few forms from the site which certainly post-dates the mid-2nd century.

Mid-Roman groups are also characterised by the presence of Hadrianic/Antonine straight-sided bead-rimmed dishes (Going forms B2 and B4). Other dish types comprise a small number of the shallow B10 types. The range of bowl forms includes C16 type carinated bowls, the convex sided C1 and flanged C3 forms. Forms C1 and C3 are almost certainly residual in mid-Roman contexts, while the C16 type continued to be produced into the mid-2nd century. The variety of beaker forms also increased in this period including examples of roughcast H20 and indented H25 types in Colchester colour-coated fabrics. The only flagons present are the ring-necked J3 types in Colchester buff ware. However, these are more characteristic of Flavian and Trajanic horizons in the region.

By and large, the range of forms present in groups assigned to CP3 is broadly comparable with those present in ceramic phases 3 and 4 at Chelmsford (Going 1987, 108–113). The presence of forms like the folded H25 beaker takes the chronology of the site firmly into the Antonine period and the G11.1 jar in particular suggests some activity into the late 2nd century. However, given the absence of material comparable with Chelmsford phase 5, it seems likely that site had gone out of use before the beginning of the 3rd century.

*Pattern of Pottery Deposition*

The Late Iron Age and Early Roman features at Hill Farm primarily comprise linear features, hence these account for 75% of the site's stratified pottery (Table 4) with, in the main, no distinctive patterns of distribution with the exception of ditch [880] (Fig. 11) assigned to CP3, which contained a substantial 1,127 sherds (11.7kg). The condition of the pottery and the frequent presence of residual material indicate that much of it had been redeposited several times over; however the presence of such large quantities of pottery does imply that dumping of pottery in ditches was practised over a long period.

Pits, which were relatively few in number, generally produced only small assemblages of pottery, suggesting that they were not dug principally for the disposal of domestic rubbish. Having said this, there appears to have been a slight increase in deposition in pits over time at Hill Farm, and a single pit assigned to CP3, [82] (Fig. 11), produced over 5 kg of pottery. Both this and [880] were located on the northern edge of the site and perhaps hinting at the proximity of settlement.

*Regional supply and consumption patterns*

There are several aspects of the site's pottery that are worth detailed discussion in relation to other east Essex sites. The near absence of early shell-tempered ware in Late Iron Age and Early Roman contexts is significant, given the size of the assemblage recovered from the site. The absence of this fabric



suggests that Hill Farm lay outside the normal distribution zone for this pottery, which is predominantly distributed around the Thameside, coastal sites and Colchester.

Some useful general comparisons with Hill Farm might also be made with assemblages from Ardleigh. An exceptionally large assemblage recovered from Vince's Farm, Ardleigh is of comparable date to that from Hill Farm (Going and Belton 1999). Previous excavations at Elm Park Farm, Ardleigh had also produced a large ditch group ranging in date from the mid-1st to early 2nd centuries AD (Holbert and Erith 1965, 18). As at Hill Farm, both sites lacked early shell-tempered wares and were largely made up by a continuum of fabrics progressing from grog-tempered fabrics analogous to Going's 'Romanising' fabric (45) to fully Roman sandy wares. Both fabric types were produced on site at Ardleigh and it is perhaps likely that some Ardleigh products would have been distributed as far as Hill Farm. Having said this, many of the Hill Farm forms which can be paralleled in the Ardleigh kiln material, such as Gallo-Belgic platters, globular beakers and C16 bowls, are types common to a number of industries. It is perhaps of note that certain characteristic Ardleigh types, including decorated *Cam.* 218 jars and distinctive trifold rim jars are not represented in the current assemblage. This may suggest that coarse wares were supplied by other industries probably including Colchester. In the group from Elm Park Farm there also appears to have been a slightly wider variety of Gallo-Belgic imports; these comprised a Terra Nigra *Cam.* 14 platter and a globular *Cam.* 108 beaker described as being in a "Gallo-Belgic" ware (Holbert and Erith 1965., nos. 11 and 14). By contrast, in the much larger assemblage from Vince's Farm, Gallo-Belgic imports made up 0.3% of the assemblage by weight, a similar figure to that from the current site. Compared with Hill Farm, tableware forms in local fabrics appear significantly more common in the illustrated stratified groups from Vince's Farm, although this may reflect the proximity of these features to the kilns producing forms like beakers, platters and bowls.

Although the Late Iron Age and earlier Roman period at Hill Farm appears to be characterised by a fairly low-status assemblage, groups of mid Roman date contain a slightly more diverse range of fabric and forms than other assemblages from north-east Essex such as that from Moverons Pit, Brightlingsea (Clarke and Lavender 2008). Although this may partly reflect the fact that Hill Farm is a larger assemblage, it gives a possible indication that the nearby postulated settlement, whose presence is inferred by the presence of cultural material, grew in status in comparison with other rural settlements in east Essex.

*Catalogue of illustrated pottery* (Figs 17 and 18)

Late Iron Age

Ditch Segment 1068, mid-fill 1070 (Group 124)

1. *Cam.* 211 Jar (fragmentary), GROG
2. *Cam.* 217 Jar (fragmentary), GROG
3. G16 Jar (slightly abraded), GROG

Ditch segment 1328, top fill 1326 (Group 113)

4. G15 Jar (slightly abraded), GROG

Ditch segment 459, top fill 457 (Group 57)

5. H7 Beaker (largely unabraded), GROG

Ditch segment 821, fill 822 (Group 101)

6. *Cam.* 217 Jar (slightly abraded), GROG

Late Iron Age/Early Roman

Post-hole 1345, top fill 1342

7. Base, probably a jar, with hole cut through the centre *post cocturam* (unabraded), GROG

Early Roman (mid 1st to early 2nd cent. date range)

Ditch segment 1295, fill 1296 (Group 114)

8. G15 Jar (slightly abraded), GRS

Ditch segment 508, fill 507 (Group 159)

9. G18 (abraded), GROG

Ditch segment 1339, fill 1338 (Group 136)

10. *Cam.* 218 Jar (slightly abraded), GRF

Ditch segment 897, fill 898 (Group 79)

11. G29 Jar (slightly abraded), GRF

Ditch segment 1269, top fill 1267 (Group 108)

12. A2 Platter (unabraded but fragmentary), GRF
13. C16/*Cam.* 246 Bowl (fragmentary), GRS
14. *Cam.* 218 Jar (unabraded), BSW
15. G11 Jar (unabraded), GRS
16. G24 Jar (fragmentary), GRS
17. G40 Jar (unabraded), GRF

Ditch segment 858, fill 859 (Group 177)

18. C1.1 Bowl (abraded), GRF

Ditch segment 856, fill 857 (Group 89)

19. J3 Flagon (abraded), BSW

Ditch segment 1242, top fill 1240 (Group 108)

20. C16/*Cam.* 246B Bowl (abraded), GRS
21. G11 Jar (unabraded), GRS
22. G23 Jar (abraded), GRS
23. G24.2 Jar (unabraded), GRS

Pit 1291, fill 1292

24. A Platter (very fragmentary), BSW

Mid-Roman (mid to late 2nd cent. date range)

Ditch segment 880, fill 881 (Group 90)

25. B2.1 Dish (abraded), BB2
26. B2.1 Dish (slightly abraded), BSW
27. B2/B4 Dish (unabraded), BB2
28. G9 Jar (fragmentary), BSW

Ditch segment 1193, fill 1194 (Group 129)

29. B4.2 Dish (slightly abraded), BB2

Ditch segment 684, fill 567 (Group 62)

30. D1.3 Mortarium (abraded), COLBM

Ditch segment 577, top fill 575 (Group 60)

31. B4.2 Dish (fragmentary), BB1
32. G17 Jar (unabraded), GRF

Ditch segment 1219, fill 1220 (Group 129)

33. B10.1 Dish (very abraded), RED

**Amphoras** by Paul Sealey

The excavations produced sixty-seven amphora sherds from fourteen contexts, weighing 2.432kg. The average sherd weight is 36.3g, but this figure is depressed by the tiny sherds from context 81. Removing that anomalous context gives an average sherd weight of 54.1g. A minimum of five vessels is present, four of the Dressel 20 Form and one of the Beltrán IIa.

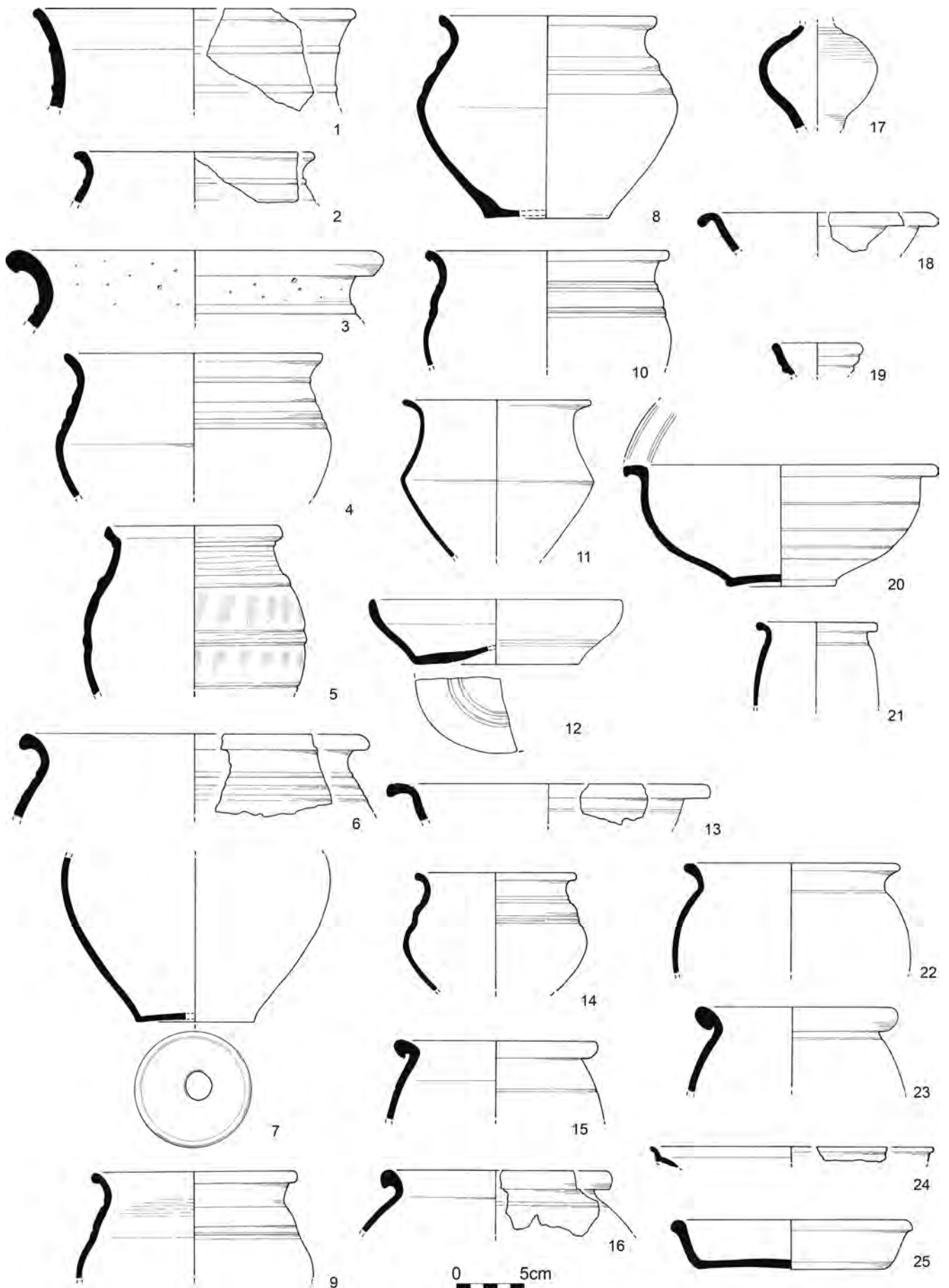


FIGURE 17: Late Iron Age and Roman Pottery, nos.1–25

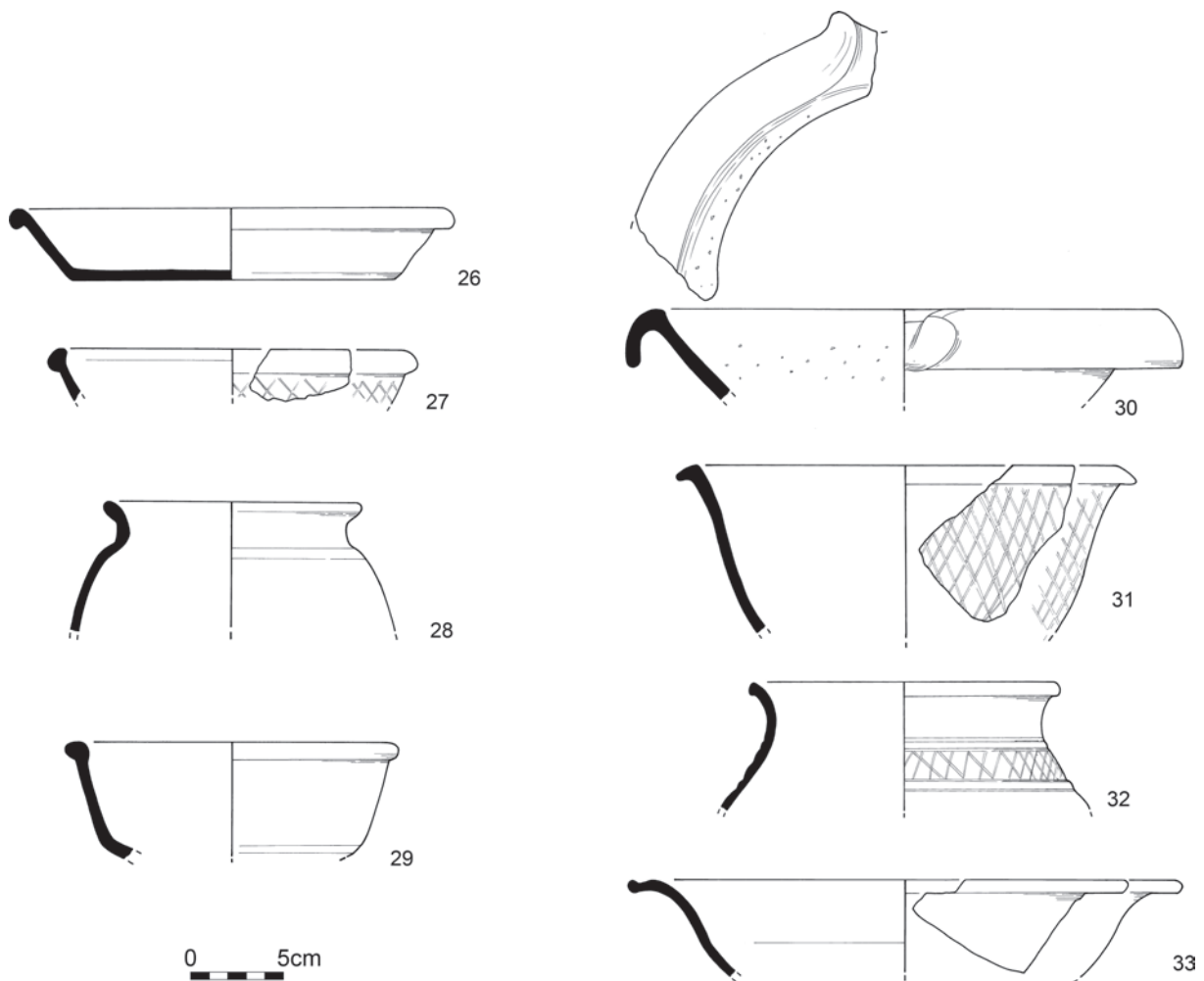


FIGURE 18: Late Iron Age and Roman Pottery, nos. 26–33

Dressel 20 is the olive oil amphora from the province of Baetica in the south of Spain. Full accounts are available elsewhere (Tomber and Dore 1998, 4–5, pls 61–2). Painted inscriptions show that Beltrán IIa was bottled with *salazon* products, fish-sauces such as *garum* and *muria* (Beltrán Lloris 1970, 431–3).

All the amphoras are Spanish. Spain was the most important single source of the amphoras reaching Roman Britain (Sealey 1985, 143–51). Dressel 20 dominates the amphoras and this is a pattern exemplified by Roman Britain as a whole. Its presence here on a native rural settlement is a reminder that the trade in Baetican olive oil with Britain was by no means exclusively under the control of the Roman state for the benefit of military garrisons and administrative personnel.

**Anglo-Saxon Pottery** Helen Walker and Susan Tyler with Luke Barber

A small assemblage of Anglo-Saxon pottery was recovered from the site: 169 sherds, weighing 3,367g, from twelve individually numbered contexts. An estimated twenty-five different vessels are represented in total. Despite the small size of the assemblage the material is fresh, with a notably large average sherd size of 19.9g. As such, most of the pottery has not been reworked.

The vast majority of the Anglo-Saxon pottery from the site is of Early/Middle Saxon date (mid-6th to 7th century),

with most being recovered during the 2003 investigations. The fabric range is notably limited with the assemblage dominated by organic tempered wares of which two related fabrics are present. These fabrics are notably friable and the presence of large fresh sherds confirms primary refuse disposal is represented with no/negligible residuality. The fabrics are described as follows:

*AS1 Organic 1* (Fig. 19.1, 2, 3 and 6)

A low-fired and friable silty fabric with abundant organic (grass/chaff) tempering to 3mm (appearing as black streaking), occasionally with rare fine/medium quartz grains. Both oxidised and, more commonly, reduced vessels are present together with some that are clearly patchily fired. Both small and large jars are represented, with simple rims and often burnishing on exterior and/or interior. By far the most common fabric on the site; 148 sherds/2,889g, Estimated Number of Vessels (ENV) 1717. Although this fabric has its roots in the 6th century, heavily tempered organic wares increase in number during the 7th century.

*AS2 Organic 2 (with sand)* (Fig. 19.4, 5 and 7)

A low-fired and friable fabric with moderate organic (grass/chaff) tempering to 3mm (appearing as black streaking) and common fine/medium quartz. A few sherds have the odd flint inclusion to 3mm. Both oxidised and reduced vessels are

present together with some that are clearly patchily fired. Jars with simple rims but no decoration are represented, including an example with heavy thumbing on its shoulder (Cat. No. 5). Where sand quantities are lower the fabric tends to merge into AS1. This is probably a slightly earlier fabric than the heavily organic tempered AS1, perhaps of the second half of the 6th century to early 7th century. It is less well represented than AS1 (17 sherds, 391g. ENV 6).

*AS3 Fine Sand*

A low/medium-fired fabric tempered with abundant quartz sand with occasional medium quartz grains. Only a single 5g reduced sherd in this fabric is present. Its form is not diagnostic (well fill [1694]). The tempering would be more in keeping with a 5th- to 6th-century date and the fact the sherd shows slight signs of abrasion, it could be residual in this context.

The majority of the assemblage was recovered from the fills of well S25 (G39). At least fifteen different vessels are represented in the combined assemblage from this group. This material is characterised in Table 5, with a fully representative range listed in the catalogue of illustrated pottery.

Although a number of other features produced Early/Middle Saxon pottery, these are always as very small groups and in the few instances where feature sherds are present, they are of similar types to those from well S25 (G39).

The assemblage is totally dominated by utilitarian globular jars, the majority of which appear to have been used for cooking. As such this is essentially a domestic group that provides a welcome addition to the relatively small number of settlement assemblages of the period in the county. Perhaps the best parallel is from the nearby site at Jaywick Lane, Clacton-on-Sea (Tyler 2005). This site produced a domestic assemblage in similar fabrics, but included diagnostically later forms such as dishes and large high-shouldered storage jars. As the Clacton group is thought to be of the 7th to 8th centuries the current assemblage can perhaps best be placed in a mid/late 6th to early/mid-7th century date range. The sand and organic tempered (AS2) fabric would be in keeping with this as it may represent an intermediate progression between the essentially sand tempered wares of the Early Saxon period and organic tempered wares of the mid-Saxon period. This is an important addition to the few pre mid-7th-century settlement assemblages from the county with those of Dovercourt and Little Oakley being located some way to the north and Mucking some way to the south-west (Tyler 1996; Barford 2001; Hamerow 1993).

Three sherds (82g) from a single Ipswich-type ware cooking pot were recovered from context [854], the primary fill of pit [853] (G168, OA31). The vessel has a simple everted rim

and sagging base, a well-known form for the ware (Blinkhorn 2012, fig. 12, Form 1). At 120mm, the diameter of the vessel fits within the most common size of cooking pots from the Ipswich industry (Hurst 1976). The fabric is of the fine type: grey, well fired with moderate fine/medium quartz tempering giving a smooth surface and can be correlated to Blinkhorn’s Group 1 (Blinkhorn 2012, 16). The inside of the vessel is encrusted with soot, with only sparse patches of sooting on the outside. This perhaps suggests the charring of the pot’s contents on a relatively clean-burning fire. The dating of Ipswich ware has seen much debate in the past. For a long time it was believed to have begun as early as the mid-7th century (*e.g.* Rodwell 1976), but doubts regarding this early date were mooted in the 1990s (Vince and Jenner 1991) and the recent reanalysis of the chronological evidence has confirmed the ware to have a date range of *c.*720–850 (Blinkhorn 2012, 8). Ipswich ware typically has a coastal/riverine distribution, around East Anglia and down to the south coast of Kent. However, it has not been a common find in Essex when compared to Suffolk and Norfolk despite some material coming from the ports. The twenty findspots listed by Blinkhorn have a heavy coastal bias. However, some inland exceptions exist, usually in the vicinity of Roman roads (Blinkhorn 2012, 78). As such the current sherds are an important addition to the growing corpus of mid-Saxon ceramics from the county.

*Catalogue of Illustrated Pottery* (Fig. 19)

1. Large jar with simple everted rim. Brown/grey throughout with fairly fine all-over burnish. Slight interior sooting. AS1. Fill [1670]
2. Large part of small globular jar with concave base. Dull orange with brown/grey patches. Slight interior sooting. AS1. Fill [1670]
3. Small jar with simple everted rim. Brown exterior with black core and interior. Some internal burnishing, particularly on rim, where there is also very slight sooting AS1. Fill [1670]
4. Jar with simple everted rim of upright type. Dark grey core and interior surface with patchy brown/light grey exterior. Slight interior sooting. AS2. Fill [1670]
5. Globular jar with simple everted rim. Dark grey/black core with dull brown/mid grey patchy surfaces. Notable thumbed depressions around shoulder of vessel from forming. Slight sooting on rim edge. AS2. Fill [1670]
6. Globular jar with simple everted rim. Black core with dull brown exterior and patchy brown/black interior. Some sooting on rim interior. AS1. Fill [1738]
7. Jar with simple everted rim. Brown/orange throughout. AS2. Fill [1738]

**Ceramic Building Material** by Hilary Major (with Susan Pringle)

In total 145 fragments of Roman tile weighing 7.559kg were found. This was a relatively small group of tile and the fabrics

Context/Fabric	AS1	AS2	AS3
Well backfill [1662]	4/212g (Large jar x1)	-	-
Well backfill [1670]	103/2183g (Large jar x1; Jar x5)	10/292g (Jar x3)	-
Well silting deposit [1694]	3/28g (Jar x1)	2/18g (Jar x1)	1/5g (uncertain form x1)
Well backfill [1738]	7/175g (Jar x1)	4/74g (Jar x1)	-

TABLE 5: Anglo-Saxon pottery from well S25 (G39). Count/weight, with ENV

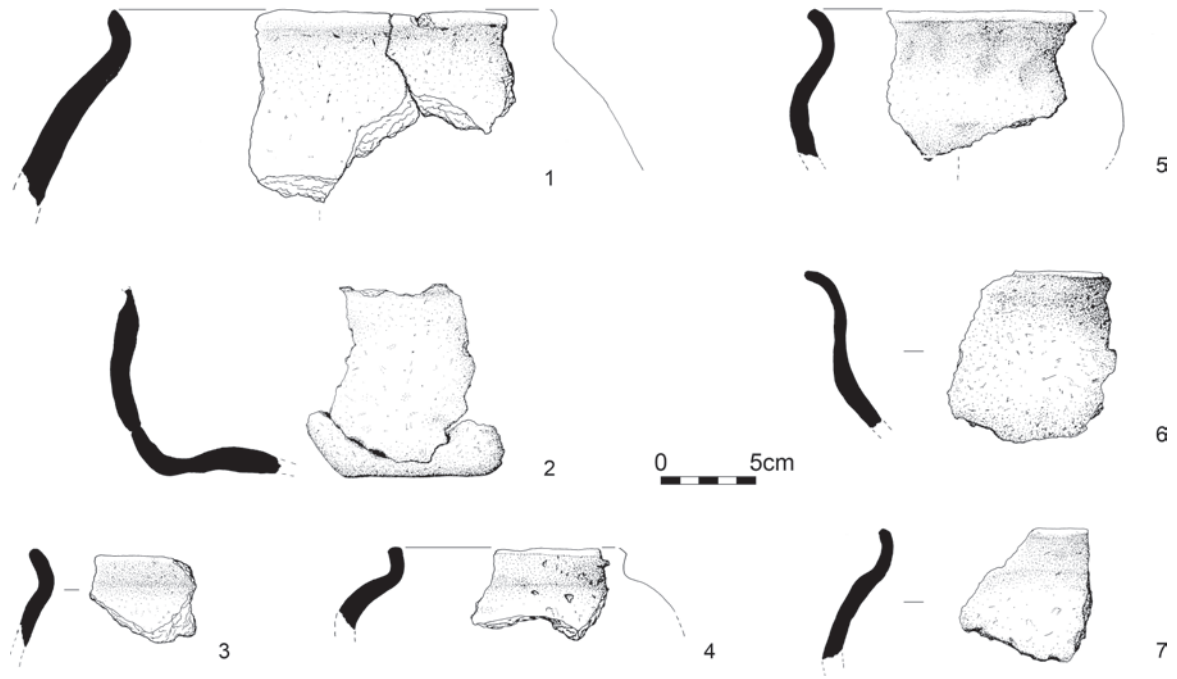


FIGURE 19: Anglo-Saxon Pottery

were not recorded. To this can be added 1.392kg consisting of two post-medieval brick fragments and two complete 19th-century field drains.

All tile was washed and then catalogued by type; categories used for cataloguing were *tegulae*, *imbrices*, other tile and spall. The ‘other tile’ category included all ‘brick’ and tegulae and imbrices with no distinctive features. In this report, ‘brick’ includes all ceramic building material except roof-tiles.

The Roman tile came from thirty-seven contexts, the most prolific of which [88], [881] [884] these were all located at the northern edge of the site. None of this material came from *in situ* structural contexts, [88] and [881] being the fills of ditches (G190 and G90 respectively) and [884] from an ill-defined layer. The presence of the end of a post-medieval brick, in the otherwise Late Iron Age feature [14], suggests that this part of the ditch has been disturbed. Five other Late Iron Age ditches have small quantities of Roman tile in their top fills and may have suffered some degree of disturbance. The total quantities of tile types of all periods from the site are set out in Table 6.

Although the tile was very broken up it was not particularly abraded. There were no complete examples and 81% of the material (by sherd count) was spall. This is a fairly high figure; in a survey of nineteen sites in Essex catalogued by H. Major, only three had percentages of spall higher than this, the average being 39%.

Almost all was in a silty orange fabric, rather poorly mixed, with bands of lighter orange clay and lenses of medium to coarse quartz and iron-rich material. Sparse flint inclusions were present in most tiles. Moulding sand, where it had survived, was generally coarse or poorly sorted. The only exception was a tegula from context [88], which also had an orange-firing fabric but lacked the paler streaking. It contained moderate amounts of fine to medium quartz, and sparse red iron-rich and calcium carbonate inclusions. None of the tile appeared to represent primary deposition although the lack of variation in the fabrics suggested that the tile may have come from a single clay source. The four retained Roman bricks were from 30 mm to 46 mm thick.

Tile type	No. of items	% of total count	Weight (kg)	% of total weight
Spall, predominantly Roman tile	118	76%	3799	26%
Roman brick	14	9%	2469	17%
Roman tegula	13	8%	1654	11%
Roman imbrex	4	3%	525	4%
Post-medieval field drain	4	3%	5096	35%
Post-medieval brick	2	1%	1010	7%
<b>Total</b>	<b>155</b>	<b>100%</b>	<b>14.553</b>	<b>100%</b>

TABLE 6: Summary of ceramic building materials

The largest deposit of the identifiable Roman material, fifteen of the thirty-one tiles, came from Phase 3.1d deposits. Most of the tile came from ditch G90; both G90 and ditch G60 contained some other recognisable material, mostly brick, and a quantity of spall.

The small quantity of post-medieval brick and field drain from G33, G67 and G163 was probably of 17th- or 18th-century date. An unfrosted brick from [1638] was worn smooth on one face from use as a flooring brick. A thin-walled roof tile, recorded as an imbrex and retained from Phase 3.2 G59 [24], may possibly have in fact been a late medieval or early post-medieval ridge tile.

#### Worked Stone by Luke Barber

Only a small assemblage of worked stone was recovered from the site with fragments of quern being the most common type. German lava dominates the quern fragments by number of pieces. However, most of the 364 fragments (3,688g) are small, with an average size of just 10.1g. Lava querns are common in the county from the Roman period on and are notorious for their fragility. A number of pieces are from apparent Roman deposits, most notably the 450g fragment from a 21mm thick lower stone recovered from Early Roman layer [1253] (FS8) and an 868g group from layer [884] comprising pieces from 25 and 30mm thick stones. However, there is a significant group of lava quern fragments from the Early/Middle Saxon period (1126g), most notably from the well (S25, G39), but also from pit [1761] (G32) and post-hole [1778] (B2), located to the north of the well (Fig. 12). With the exception of a 30mm thick fragment from [1761] the Anglo-Saxon lava querns are notably fragmented, but their quantity suggests these are of the period rather than being just residual or re-used Roman stones.

Two other well-known stone types were used for quern at the site. There are two pieces (2,032g) from Millstone Grit querns, layer [884] and ditch [1258]. The single fragment of Puddingstone quern appears to be from an upper quern stone (1,502g). Although there is some debate about the exact start date for rotary querns in Puddingstone, current evidence suggests production began in the latest Iron Age (Major 2004). Whatever the case the piece is clearly intrusive in the Phase 1.2–2.1 ditch in which it was found (context [1194]).

In addition to the querns there are three fragments from water-worn cobbles that appear to have been utilised for rubbing/sharpening. All may have been available locally as erratics or from the nearby coastline. The earliest consists of an oval flattened cobble from Bronze Age cremation [1111] (OA2). The latest potential stone in this category is from part of a flattened quartzite cobble (75mm wide by 18mm thick) with notable wear on each of its opposing flat faces. This was recovered from the Anglo-Saxon well fill [1670]. In addition part of a schist whetstone was recovered from cleaning Trench 26 of the 1997 evaluation. This is most likely to be of medieval date.

#### Flintwork by Karine Le Hégarat

The various phases of excavation at Hill Farm recovered just thirty-four pieces of flint considered to be humanly struck, weighing 583g. In addition, a small assemblage of burnt unworked flint (207 fragments weighing 2,082g) was recovered. A large percentage of the assemblage of worked flint

is residual in later contexts and consists mostly of pieces of flint débitage which are not chronologically distinctive (Table 7). Nonetheless, on technological grounds the majority of the assemblage reflects human presence during the Neolithic and Early Bronze Age. The artefacts were found in low-density, and no *in situ* scatters were recorded. Although no formal tools were recorded and the evidence remains sparse, the small assemblage of struck and burnt flint indicates an early human presence in the landscape

Flint type	No
Flakes *	22
Blades, Blade-like flakes, Bladelets	7
Irregular waste	2
Cores, Core fragments	1
Retouched forms	1
Hammerstone	1
<b>Total</b>	<b>34</b>

TABLE 7: Summary of the struck flint  
(\*includes core preparation flake)

All the struck material consists of flint which varies in colour from light browns and greys to darker greys and almost black. Where present, remnants of cortex indicate that two types of raw material were used. Smooth and extensively weathered off-white cortex suggests that the majority of the flint may have been procured from superficial deposits, possibly from the boulder clay, and heavily pitted cortex indicates that a small component could have been collected from gravel sources. The condition of the pieces of struck flints is variable. Although some pieces were extensively edge chipped or abraded, the majority was only minimally damaged. Six pieces were recorded as broken.

In total, 47.06% of the total assemblage (sixteen pieces) came from Early and Middle Bronze Age features, the majority of which were directly associated with the Middle Bronze Age cemetery. The contexts contained no more than four pieces of flint each. No diagnostic material was present, and the pieces could be residual. In total, 38.23% of the pieces of flint originated from Early Iron Age or later contexts and may also perhaps be residual (Table 8). A further five pieces were found unstratified.

As noted above no diagnostic tools were recorded, and dating can only be made with reference to technological traits. A large proportion of the assemblage is made up of small-sized flakes, although a few blades and blade-like flakes were also recorded. The technological attributes of the flint are fairly consistent, and a relatively large proportion of the flint débitage displays characteristics of Neolithic/Early Bronze Age industries. The flakes, blades and blade-like flakes were struck using both soft and hard hammer percussors; and, although a mixed hammer mode appeared to have been used, the pieces were carefully worked. Several artefacts display platform preparation, and dorsal blade/flake scars were also evident. One of the blades found unstratified displays signs of having been utilised. A single miscellaneous retouched piece was found in Roman ditch [75] G90.

The core fragment from ditch [1245] G90 exhibits scars indicating that it was used to remove small blades.

Site Phases	Flakes	Blades, Blade-like flakes, Bladelets	Irregular waste	Cores, core fragments	Retouched forms	Hammerstone	Total	%
EBA/MBA (1.1)	1	-	-	-	-	-	1	2.94%
MBA (1.2)	10	3	2	-	-	-	15	44.12%
Later phases (2.1, 3.1, 3.1b, 3.1c, 3.1d, 4.1) and unstratified contexts	11	4	-	1	1	1	18	52.94%
<b>Total</b>	<b>22</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>34</b>	

TABLE 8: Summary of the struck flint by phase and category type

Furthermore, a core edge rejuvenation flake found unstratified provides evidence for a careful reduction strategy. The flake was removed from a blade core. A flint hammerstone was also recovered. Although no chips and no primary flakes were recorded, the core fragment, the core edge rejuvenation flake and the hammerstone provide limited evidence for knapping activities at the site, perhaps in the Neolithic/Early Bronze Age.

**Iron-Working Slag** Luke Barber

The excavations produced a very small assemblage of iron-working slag from the site (under 1.5kg). The vast majority of the datable slag was recovered from Early/Middle Saxon deposits. Most of this (944g) was recovered from the well S25 (G39). This group appears to relate to smithing, a point confirmed by the presence of the majority of a 120mm diameter, 35mm thick forge bottom from fill [1670], a dump of burnt material in the well shaft. Low-level iron smithing is a common occurrence at most rural sites and the fact the Anglo-Saxon occupants were undertaking it is not unexpected. More surprising is the absence of smithing waste from Roman deposits.

**Cremated Bone** by Lucy Sibun

Burnt bone was recovered from a total of twenty contexts, of which eighteen produced identifiable human bone. The small quantities of unidentifiable bone were recovered from the surface [1506] and from within another identified cremation burial [1528].

The positively identified cremation burials were recovered from the Middle Bronze Age cemetery and associated features. A single cremation was recovered from the centre of a ring-ditch within the cemetery (G10). The main focus of the cemetery produced thirteen cremation burials and three further unurned burials were recovered from just to the north of the main area (G24 and G26). Age estimations were only possible as adult or infant/child and no sexually diagnostic fragments were present.

All identified cremation burials are dated to the Middle Bronze Age phase of land use. These deposits were collected and processed as environmental samples with sieve meshes of <4mm, 4–8mm and >8mm presented for analysis. The results of analysis are tabulated (Table 9) and summarised below.

With one exception, the burials appeared to contain the remains of single, adult individuals. The exception is [1562] in which the size and fragility of fragments suggests that they are the remains of an infant/child. Unfortunately, it was not possible to estimate age more precisely. The presence of an infant within the cemetery is not unexpected and other Middle Bronze Age cemeteries within the area have produced populations of both sexes and all ages (Anderson 2005, 18).

The quantities of cremated bone recovered ranged from 9.5g in [1542] to 622.4g in [1623], with a mean average of 186.1g. The 622.4g recovered from [1623] represents approximately 38% of the expected weight of cremated bone produced by an adult, whilst the fragments from [1542] represent approximately 0.6% (McKinley 1993, 285). Cremations commonly average between 500–800g (McKinley 2006, 26) and only one of these assemblages [1623] falls within that range. This may reflect the poor preservation conditions on site and also results from post-depositional disturbance and truncation. It is interesting to note that the largest assemblage was recovered from one of the unurned, and therefore less protected, burials, although this was within a larger pit and hence is likely to have suffered from less truncation. These weights are broadly comparable with those from Ardleigh where the twelve burials weighed a mean average of 271.1g (Mays 1999, 159). They are considerably less, however, than the Middle Bronze Age burials from Birch Pit, Colchester with a mean average of 1,026.9g (Anderson 2005, 14).

The fragments from all burials were an off-white colour indicative of an efficient and fairly uniform cremation process (Holden *et al.* 1995a and b) where temperatures would have reached in excess of 600°C (McKinley 2004, 11). It has been suggested by Mays, when discussing the comparable Middle Bronze Age assemblage from Ardleigh, that rather than necessarily representing the entire assemblage the well-burnt, off-white fragments are simply the ones that survived and that the less burnt fragments did not survive (Mays 1999, 159). This would appear to be the case at Hill Farm given that unburnt bone was poorly preserved (Ayton, below).

Unurned cremation burials without the protection of a vessel are usually highly fragmented, with large percentages of the bone assemblage being fragments less than 10mm in size. In this assemblage there was no apparent difference between the urned and unurned burials, with the majority of the bone being recovered from the 0–4mm and 5–10mm

Group No.	Context Number/ Summary	Weight per skeletal element (grams)					Total (grams)
		Skull	Axial	Upper limb	Lower limb	Unident	
10	Cremation fill 1518, in pit 1516	25			8.3	54.5	87.8
	Cremation fill 1508, in pit 1511	16.8	8.9	22.8	17.2	80.8	146.5
	Cremation fill 1512, in Pit 1515	9.7		6.1	9.1	61.1	85.9
24	Cremation fill 1529, in Pit 1532	30.2		11.1	9.9	169.4	220.6
	Cremation deposit 1533	20.4	35.3	29.6	33.5	272.0	390.8
	Cremation fill 1566, in Pit 1564	9.6	19.2	19.5	22.4	116.1	186.8
	Cremation fill 1575, in Pit 1578				3.8	24.4	28.2
	cremated bone 1536	16.2	0.4	25.0	27.4	183.3	252.3
	Cremation fill 1542, in Pit 1543				5.5	4.0	9.5
	Cremation fill 1554, in Pit 1555	6.3		11.4	11.0	16.6	48.3
	Cremation fill 1562, in Pit 1561	6.1	0.8	2.1	2.2	37.9	49.1
26	Cremation fill 1571, in Pit 1570	33.7	17.1	62.9	53.9	212.0	379.6
	Cremation fill 1589, in Pit 1590	38.7	18.9	34.6	40.2	119.1	251.5
	Cremation fill 1623, in Pit 1624	120.7	39.5	88.7	153.5	220	622.4
	Cremation fill 1641, in Pit 1642	29.2	8.5	40.2	46.5	119.4	243.8
	Cremation fill 1657, in Pit 1642	45.7	25.1	46.0	58.4	154.1	329.3
	Cremation fill 1739, in Pit 1740	5.7	0.2	0.3	3.0	7.9	17.1
	Cremation fill 1744, in Pit 1745	3.4		1.5	1.3	18.0	24.2

TABLE 9: Weight of cremated bone by context and skeletal area

fraction in all but one burial [1554] where the majority was recovered from the 11–20mm fraction. The fragmentation of all burial deposits probably results from the extensive plough damage evident in the cemetery. A large degree of fragmentation was also noted at Birch Pit (Anderson 2005, 17) and when comparing Early Bronze Age and Middle Bronze Age cremations from St Osyth in Essex, Anderson noted that there was a larger degree of fragmentation in the latter assemblages, perhaps suggesting a deliberate attempt to crush the bone before burial (Anderson 2005, 17).

All burials contained fragments identifiable to skeletal area and in the majority the proportions were fairly evenly spread with approximately 25–35% of fragments from the skull, upper and lower limb. Unsurprisingly, the axial skeleton, which contains a large proportion of less dense trabecular bone, was less well represented. The exceptions were burial [1566] which contained more fragments from the axial skeleton, upper and lower limb and less from the skull and [1529], [1562], [1739] and [1744] in which 54–62% comprised skull fragments. In the case of [1542] and [1575] the identifiable bone consisted entirely of lower limb fragments. The variation in relative quantities of bone from each area may simply result from a variety of individuals being involved in the collection process. However, it is possible that it may reflect deliberate selection of elements during the recovery process or may suggest that collection was concentrated in particular areas of the pyre. Unfortunately, as the deposits were not excavated in spits it was not possible to assess spatial patterning within each burial.

The largest single fragment was from a lower limb recovered from [1623], measuring 61mm in length and fragments of greater than 40mm were recovered from eight of the burials, including the three unurned assemblages. Smaller elements of the skeleton, for example tooth roots and small bones of the hands and feet, were recovered from eleven of the burials and this was also noted in the contemporary, unurned cremation recovered from the Greenfields site on the

A120 road scheme (McKinley 2007, 78). McKinley suggests that this may be a reflection of the burial ritual, suggesting en-masse collection, rather than hand selection (McKinley 2006, 29). No animal bone or other pyre debris was present in the assemblages.

The Hill Farm assemblage does seem to conform to other Middle Bronze Age cremation cemeteries in the area. Whilst the quantities of bone recovered are comparatively smaller, this may result from post-depositional disturbance. This would also account for the high degree of fragmentation noted, although the deliberate crushing of bone before burial cannot be ruled out.

#### Animal Bone by Gemma Ayton

The animal bone assemblage comprises 1,455 fragments of bone, the majority of which are small and poorly preserved. The specimens, which have been recovered through hand-collection and bulk samples, derive from a range of features dating from the Bronze Age to the Anglo-Saxon period. The assemblage does not contain any measurable bones nor does it contain any recordable mandibles (those with two or more teeth *in situ*). As a whole the assemblage is characterised by small, poorly preserved fragments and subsequently a high proportion of the specimens are unidentifiable. A limited range of taxa have been identified including cattle, sheep/goat and pig with the majority of the identifiable assemblage deriving from Anglo-Saxon contexts.

A total of twenty-two small, poorly preserved fragments of unidentified bone were recovered from G167, dispersed prehistoric pits. Animal bone was recovered from one Iron Age feature, ditch [666], G166 (not illustrated) on the northern edge of the site which produced thirty-two small, poorly preserved fragments of cattle tooth enamel.

Small assemblages of animal bone, totalling 706 fragments were recovered from a range of Roman features. The largest quantity of bone derives from a pit, G179 (Fig. 10),



which produced 553 fragments though only thirty-one fragments have been identified to taxa. The identifiable assemblage is comprised solely of pig teeth alongside small fragments of mandibles and metacarpals and the unfused, proximal epiphyses from a femur.

The Anglo-Saxon assemblage is composed of 610 fragments from five groups with the largest proportion of bone deriving from the well S25 (G39) which produced 453 fragments in total of which 101 are identifiable to taxa. The identifiable assemblage is composed of small, poorly preserved fragments of cattle teeth and mandibles.

In summary, the poorly preserved nature of the animal bone assemblage means that it provides very little information regarding animal husbandry regimes either in specific periods or as changes occurring over time.

**Charcoal from Bronze Age cremation burials** by Dawn Elise Mooney

Charred wood remains from six bulk soil-samples taken from the fills of Middle Bronze Age cremation burials at the site were analysed in order to identify the range of woody taxa utilised as fuel during the funerary ritual. These samples originated from [1590], [1624], [1642], [1740] and [1745], to the north of this cemetery (Fig. 4 and Table 2). The analysis presented here aims to establish whether selection of particular woody taxa for use in cremation pyres is visible and how the assemblage compares to those from contemporary cemeteries.

The charred wood remains from the samples were generally poorly preserved and substantially abraded. Most fragments displayed some degree of sediment concretion and infiltration showed signs of mineral concretion. The results of the taxonomic identification of charcoal are given in Table 10, and the poor preservation of the material can be seen in the large numbers of fragments which could not be identified. It is likely that these fragments represent examples of softwood or diffuse-porous hardwood taxa that display less distinctive diagnostic characteristics than ring-porous hardwoods. The anatomical structure of the charcoal fragments analysed was consistent with the following taxa:

- Aquifoliaceae: *Ilex aquifolium*, holly
- Betulaceae: *Alnus* sp., alder; *Betula* sp., birch; *Corylus* sp., hazel
- Fagaceae: *Quercus* sp., oak
- Oleaceae: *Fraxinus excelsior*, ash
- Rosaceae: *Prunus* sp., cherry, blackthorn; Maloideae, including *Crataegus monogyna* (hawthorn), *Sorbus* sp. (rowan, service, whitebeam), *Malus* sp. (apple) and *Pyrus* sp. (pear)
- Pinaceae: Pine family, including *Pinus* sp. (pine), *Larix* sp. (larch) and *Picea* sp. (spruce)

In some cases the anatomical differences between genera are not significant enough to conclusively identify wood remains to genus level. No further division is given to wood of the Maloideae subfamily, between hazel and alder, or species of the *Prunus* genus or the pine family. The following considers the characteristics of the charcoal assemblages in relation to land use.

Both samples from cremation pits in the vicinity of the cemetery (C2) contained significant proportions of charcoal fragments which were unable to be assigned taxonomic identifications. Of the identifiable fragments, the fill of pit [1740] contained a majority of oak charcoal, with Maloideae and birch also present. The assemblage from pit [1745] also contained oak but was dominated by hazel/alder fragments, with much smaller quantities of birch and pine family charcoal also recorded.

Unlike the pits in C2, cremation burials from C3, situated to the north of the main cemetery area, were all dominated by mature oak, although burial [1642] also produced a significant proportion of ash charcoal. This assemblage contained a wide range of wood taxa including Maloideae, cherry/blackthorn, hazel/alder and holly, while the assemblages from [1590] and [1624] contained only very small quantities of hazel/alder and Maloideae respectively in addition to oak.

The analysis of the charcoal from cremation burials and pits has shown that in four of the five features, the charcoal

Sample Number	38	39	40	41	45	46
Context	1589	1623	1657	1641	1739	1744
Parent Context	1590	1624	1642	1642	1740	1745
Common Name						
Oak	24	54	53	64	9	3
Ash	-	-	28	15	-	-
Hawthorn, whitebeam, rowan, apple, pear	-	3	1	-	6	-
Cherry/blackthorn	-	-	4	-	-	-
Birch	-	-	12	3	1	8
Hazel/alder	1	-	-	5	-	59
Holly	-	-	2	6	-	-
Pine family	-	-	-	-	-	3
Indet. Distorted	-	3	-	7	10	27

TABLE 10: Taxonomic identifications of charcoal from Mid to Late Bronze Age cremations

assemblage was dominated by a single taxon. Although a large proportion of oak was present in the assemblage from cremation pit [1740], the large quantity of charcoal of indeterminate species in this assemblage limits its interpretive value. The charred wood assemblage from all three of the unurned cremations examined is dominated by oak, although a significant proportion of ash was also present in cremation burial [1642]. Both these taxa are known to have good burning properties (Taylor 1981) and would certainly have produced the heat required for human cremation and are both commonly identified in Bronze Age cremation deposits from southern England (cf. Gale 2009; Alldritt 2006a; 2006b; 2006c; Challinor 2006 and 2007). As large timber trees, these taxa are likely to have formed the main component of the construction of the pyre.

The other woods represented in this assemblage, including Maloideae, cherry/blackthorn, birch, hazel/alder and holly, are all known to be moderate to good fuel woods and are likely to represent the exploitation of woodland margin and hedgerow environments for firewood acquisition. These were probably used as kindling and to fill gaps between the larger logs of the pyre structure (Challinor 2007). However, it has also been suggested that some of these taxa, in particular those in the Maloideae and cherry/blackthorn groups, may represent a symbolic addition to the pyre. Those woods such as apple, pear and cherry which bear edible fruits may have represented symbolic offerings of food for the deceased (Challinor 2007) or others may have been selected for a ritual or religious purpose (cf. Alldritt 2006c). Of the Maloideae taxa, both hawthorn and rowan figure prominently in British and European folklore, and have traditionally been imbued with protective powers (Baker 1996), and it is possible that similar associations were held in prehistoric Britain.

The predominance of hazel/alder charcoal in cremation pit [1745] is unusual, both in the context of the site and on a regional scale. Hazel has been shown to form a significant component of the charcoal from Late Bronze Age cremations at Saltwood Tunnel in Kent (Alldritt 2006c), but only as a supplementary fuel to oak, and has been interpreted as representing kindling fuel. The large quantity of hazel/alder may be a factor of wood availability at the time of the cremation ceremony. Alder is also known to make excellent charcoal (Taylor 1981), and it is possible that alder charcoal was used as part of the pyre due to its higher burning temperature. Alder is a common taxon of damp woodland and wetland margin environments, and would certainly have been available along the margins of the rivers and streams.

Overall the charcoal assemblage from Hill Farm has much in common with numerous other contemporary sites across southern England.

#### **Macrobotanical Remains** by Dawn Elise Mooney

Twenty-eight bulk soil samples from the site were analysed to establish the presence and diversity of charred and waterlogged plant macrofossil remains. These samples originated from a variety of features across the Bronze Age to Anglo-Saxon occupation phases, including cremations, ditches, pits and hearths. A summary of the plant remains identified from each phase is presented in Table 11. Seven samples contained no macrobotanical remains other than wood charcoal fragments; these are not included in this discussion.

Preservation of the charred plant remains recorded in the samples was generally poor, with both cereal grains and seeds of weed species displaying puffing and distortion related to the carbonisation process. The majority of remains were preserved by charring, however plant macrofossils preserved in anaerobic waterlogged conditions were recorded in sample <17> from Late Iron Age field system ditch [707].

Evidence of diet in the samples was provided by grains of oats (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) in seventeen samples. While these three taxa were represented in even quantities in the Bronze Age, Iron Age and Anglo-Saxon contexts, only barley was noted in samples from the Roman land use at the site. The presence of rachis nodes of barley or rye (*Secale cereal*) along with spelt wheat (*T. spelta*) glume bases provides evidence of cereal processing, with the disposal of refuse including chaff and seeds of wild flora in open features. A single vetch (*Vicia/Lathyrus*) seed from Anglo-Saxon pit [1652] may also represent a cultivar; however it is not possible to draw conclusive evidence from this single specimen. A fruit stone of bullace or sloe (*Prunus* sp.) and a fragment of hazel (*Corylus avellana*) nutshell may indicate the exploitation of wild food resources during the later phases of the site.

Seeds of wild taxa were rare and mostly represented weeds of arable land or waste ground such as wild radish (*Raphanus raphanistrum*), scentless mayweed (*Tripleurospermum inodorum*), sorrel and dock (*Rumex* sp.), nettle (*Urtica dioica*) and grasses including brome (*Bromus* sp.). Seeds of sedge (*Carex* sp.) in Bronze Age cremation [1511] may indicate the use of this taxon as a component of the fuel, or wetland/damp grassland vegetation may have been burnt beneath the pyre.

Overall, the small assemblage of macrobotanical remains recovered from the samples is indicative of an arable grassland landscape persisting throughout the occupation of the site, with intermittent woodland or hedgerow areas as represented by the presence of hazelnut and bullace/sloe remains. Cereals such as oats, barley and wheat are likely to have been cultivated in the surrounding area and processed on site.

#### **Registered Finds** by Elke Raemen and Luke Barber

A total of seventy-three registered finds were recovered from the Hill Farm excavations. The assemblage ranges in date from the Late Bronze Age through to the post-medieval period. Finds from the later periods are negligible however, comprising only a few, undiagnostic artefacts, and for the scope of this report only the Late Bronze Age to Early Saxon material is considered. Surface finds, where they are not diagnostic or distinct, have also not been incorporated. All x-rayed material was assigned registered finds numbers too (RF <00>), including a few nails and slag, the latter considered with its functional category. Nails are not further included as, out of six, only one was stratified.

Objects of all main periods represented are overwhelmingly domestic in function. However, no large groups of any given period were recovered and artefacts are likely to derive from a settlement in the vicinity. As such, there is evidence for weaving on a domestic scale from the Middle Bronze Age onwards up to the Early to Middle Saxon period. The quern fragments, found in Roman and Early to Middle Saxon contexts, signify either flour making, or the preparing of malt for brewing,

		Period			
		1	2	3	4
Cereal Grain	<i>Triticum</i> sp.		*		**
	<i>Hordeum</i> sp.	*		**	**
	<i>Avena</i> sp.	*			*
	Cerealia indet.	**		***	***
Cereal Chaff	<i>Triticum spelta</i>	*			*
	<i>Hordeum/Secale</i>	*			
Other plants of economic value	<i>Vicia/Lathyrus/Pisum</i> sp.			*	*
	<i>Corylus avellana</i> L.				*
	<i>Prunus</i> sp.				*
Wild plants and weeds	Poaceae				*
	Poaceae			*	
	<i>Bromus</i> sp.				*
	<i>Urtica dioica</i> L.				
	<i>Urtica dioica</i> L.		*		
	Polygonaceae indet.		*	*	
	<i>Rumex</i> sp.			*	*
	<i>Silene</i> sp.			*	
	<i>Mentha</i> sp.		*		
	<i>Carex</i> sp.	**			
Other botanical remains	Charred root/rhizome/stem	***		*	**
	Waterlogged root/rhizome/stem		***		
	Buds			*	*
	Unidentified weed seeds	*		*	*

TABLE 11: Quantification of macrobotanical remains  
 (\* = 1-10, \*\* = 11-100, \*\*\* = >100)

both of which took place within the household atmosphere. None of the finds are of high status and overall the assemblage is typical for field systems associated with rural settlements occupied over a long period of time.

Finds are discussed by period and by functional category, accompanied by a catalogue of illustrated artefacts. Fired objects and metalwork reports rely heavily on previous archive reports by Hilary Major, supplemented by reports by Joyce Compton.

*Late Bronze Age*

Textile Production

A cylindrical loomweight fragment (RF <23>) with estimated diameter of c.76mm was recovered from ditch [394] (fill [393], GP53, FS1). Loomweights of this form are considered to be of Middle Bronze Age date, which is consistent with the pottery evidence. The example is somewhat small compared to other loomweights (e.g. North Shoebury, Barford 1995, 125). Chronology and distribution in Essex has been discussed in Barford and Major (1992).

1. RF <23> Ceramic loomweight (Fig. 20.1) [393] GP53, FS1; Phase 1.1  
Incomplete. Part of the top and side of a partially blackened cylindrical loomweight. The fabric, with orange and buff patches and reduced core, contains coarse sand and flint inclusions. Estimated diam *c.* 76mm; hole diam 16mm; L53mm+. Middle Bronze Age

#### Household Equipment

Sharpening Stone: An oval flattened cobble (RF <56>; 130 × 96 × 29mm) from Bronze Age cremation [1111] (OA2) may have been utilised for rubbing/sharpening. The cobble is of a dull orange, slightly micaceous, non-calcareous sandstone with some wear on one of its flattish faces. Cobbles may have been available locally as erratics or from the nearby coastline.

#### Iron Age/Roman

##### Dress Accessories

A Colchester A brooch (RF <2>) was recovered from ditch [131] (fill [129]).

2. RF <2> Copper-alloy brooch (Fig. 20.2) [129] GP92, FS9; phase 3.2  
Incomplete. Fragments of a Colchester A brooch with most of the surface missing. Catchplate and one side of the wing are also missing. Iron axis bar and large, six-coil spring. First half of the 1st century.

#### Textile Production

At least eight Iron Age triangular weights were recovered. Fabrics are summarised in Table 12. Although their interpretation as loomweights has been disputed (*e.g.* Poole 1995), it is still the generally accepted hypothesis. A typology has been established based on the Danebury assemblage (Poole 1984, 401–7); however, most of the loomweights from Hill Farm are too fragmentary to classify them. RF <36> (Fig. 19.3) can be established as a Type 1, which is the most common type. Of the remainder, usually no more than an apex fragment survives. Some differentiation in manufacturing style was also noted, *e.g.* a weight with saddle top (RF <28>) and a flat faced as well as a convex faced weight (RF <34>). These characteristics are likely due to individual workmanship.

Although several other pierced corner fragments were recovered, none show any signs of thread wear. Although thread marks have been found on triangular weights (*e.g.* Ashford Prison (Sudds 2006, 71)), their lack on most weights of the period throws up the question of their manner of suspension or longevity of use (Poole 1995, 285; Sudds 2006, 71). Few perforations survive, and all measure 10mm or less, which is not considered to be practical to get many wharp threads through (Poole 1984, 406).

This type of artefact is ubiquitous on Iron Age sites both nationally and within the county, having been recovered from, for example, the investigations at the Orsett ‘Cock’ Enclosure (Major 1998) and North Shoebury (Barford 1995).

3. RF <36> Ceramic loomweight (Fig. 20.3) [1583] GP40, OA1; Phase 2.1  
Incomplete. *c.* 60% of triangular loomweight. H135mm. One complete and two partially surviving piercings, measuring *c.* 10mm diam. Fabric overfired.

#### Household Equipment

Polishing Stone: A tapering fragment of mid grey siliceous non-calcareous fine sandstone (RF <55>) from Roman deposit [955] appears to have originally been used as a polishing/grinding stone but then converted to make a weight

by the pecking of a longitudinal groove around the stone to secure a suspension chord.

#### Objects of Uncertain Function

Fired clay blocks or slabs are an increasingly common find in Late Iron Age contexts. At least one such block (RF <32>; Fig. 19.4) was recovered from the site, and a further two pieces with edge or flat surface (RFs <27>, <31> and <35>) may represent blocks too. There are in addition some pieces which could either be from triangular loomweights or blocks. Fabrics encountered are the same as noted on the backed clay loomweights, *i.e.* F1 and F3 (Table 12). Their function is as yet uncertain. At the Orsett ‘Cock’ Enclosure they were found in association with a domestic oven floor, suggesting a use relating to baking; a possible function as pot stands is also put forward (Major 1998, 107). A wide range of shapes ranging from large flat slabs to pyramidal and rectangular blocks were recovered at Elms Farm, Heybridge; however, there were no indicators as to what their function may have been (Tyrrell 2015). The rectangular blocks are sometimes referred to as ‘Belgic bricks’, however, although the term is still in use, their use as building bricks is now no longer accepted. Furthermore, the current example is rather small and well-finished for such a use. Different sites throw up different interpretations for these objects and they may well have had a variety of different functions, rather than a single well-defined usage.

RF <32> was recovered from a Late Iron Age ditch; the remainder of block fragments were found in ditches too, ranging from Early to Middle Roman date.

An iron rod with a diameter of *c.* 25mm and measuring 190mm+ long, in poor condition but appearing to taper, was recovered from ditch [340] (fill [339], GP61, phase 3.1a). It may have formed part of a tool (handle), however, too little survives for it to be diagnostic.

4. RF <32> Ceramic block (Fig. 20.4) [1224] GP135, FS4; phase 2.2  
Near complete, well-finished rectangular block measuring 73 by 44 by 41mm. Fabric 1

#### Early Saxon

##### Dress Accessories

A copper-alloy shaft (RF <12>), probably from a hair pin, was recovered from well [1735] (fill [1738], SG39). The fragment measures 49mm+ long. A second possible pin shaft fragment (RF <14>) was found in pit [1761] (fill [1760]).

A bone tooth plate from a comb (RF <13>) was recovered from well deposit [1738].

Fabric	Description
F1	Low fired, brownish red fabric with no visible inclusions. The material fractures in a distinctive angular and laminated way. Similar to Fabric G at Elms Farm (Tyrrell 2015)
F2	As above but with small voids throughout the fabric, which are not from burnt out shell or vegetable matter.
F3	Pale orange with evenly dispersed common fine sand temper.

TABLE 12: Iron Age loomweight fabrics

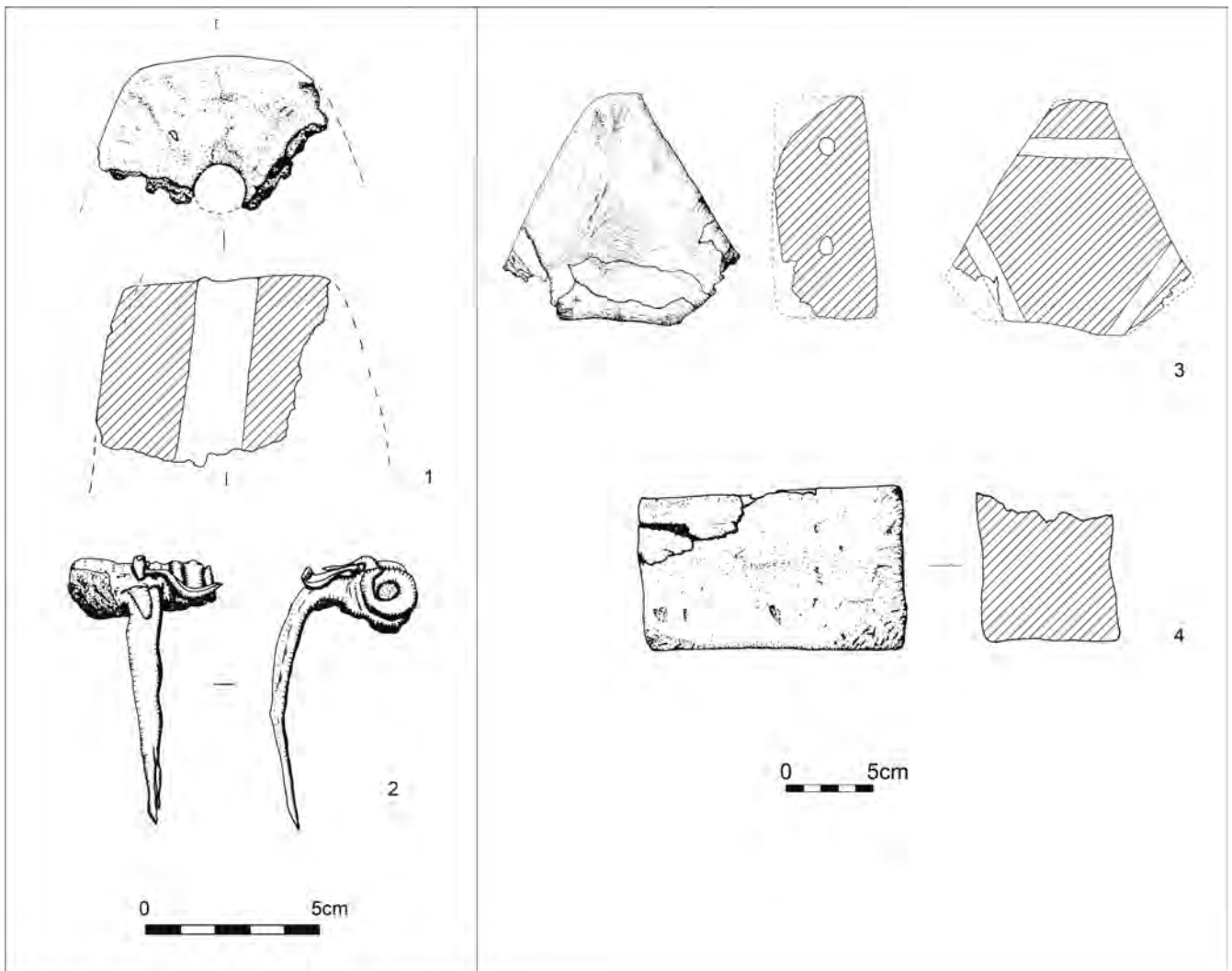


FIGURE 20: Registered Finds, nos. 1–4

- 5 . RF <12> Bone comb (Fig. 21.5) [1738] GP39, S25; phase 4.1. Incomplete. Poor condition with teeth largely missing. Double-sided tooth-plate from composite comb. Half-rivet hole on one edge, cut square on other. L36mm+, W20mm.

### Textile Production

Up to fourteen annular loomweights, which were used with wharp-weighted looms, were recovered from contexts of Anglo-Saxon date. Fragments are all in a silty fabric (Table 13) and mostly abraded, with usually just under 50% surviving. They range in diameter between 49mm and 65mm, with internal diameter varying between 23mm and 42mm and measuring between 33mm and 45mm high. They are of Hurst’s intermediate type (Hurst 1959), traditionally of Mid-Saxon date but now accepted to considerably overlap with the annular and bun-shaped type (*e.g.* Goffin 2003). The majority of weights were recovered from well S25 dump deposit [1670] in the shaft of contained at least ten weights and at least one further weight was recovered from fill [1694]. Others were recovered from the fills of dispersed pits [1761] and [1746] in the eastern part of the site.

The bone double-ended pin beater (RF <15>) is also consistent with the use of a wharp-weighted loom, which was replaced by the 10th century onwards by the vertical

Fabric	No of weights	Description
F6	12	Silty, fine pale orange fabric with common black and red iron-rich inclusions to 1mm, common fine quartz and rare coarse quartz. Common angular and rounded flint to 15mm.
F7	2	Silty orange, of a more crumbly nature than above and with moderate fine to medium quartz and abundant rare black inclusions to 1mm. Common annular and rounded flint to 15mm.

TABLE 13: Anglo-Saxon loomweight fabrics

two-beamed loom. Pin beaters or thread pickers were used to separate threads whilst weaving. The cigar-shaped example from Hill Farm (York type 1, Walton Rogers 1999) is particularly long and slender.

6. RF <15> Bone pin beater (Fig. 21.6)  
[1820] GP39, S25; phase 4.1. Complete. Oblate section (max 7 by 6mm), L186mm.

Household Equipment

Knives

Well [1669] contained three small knives (fill [1670], [1700]), complete with tang and dating to the 7th to early 8th century.

7. RF <6> Iron knife (Fig. 21.7)  
[1670] GP39, S25; phase 4.1. Complete. Curved back and straight cutting edge (Evison 1987 type 4). 7th to 8th century. L94mm.
8. RF <7> Iron knife (Fig. 21.8)  
[1670] GP39, S25; phase 4.1. Complete. Curved back and straight cutting edge (Evison 1987 type 4). 7th to 8th century. L132mm.
9. RF <9> Iron knife (Fig. 21.9)  
[1700] GP39, S25; phase 4.1  
Complete. Angled back and curved cutting edge. Mid 6th to early 8th century. L113mm

Tools

An awl (RF <10>) was recovered from well [1669] (fill [1670]). The same feature also contained an iron spike (RF <16>) which could represent another awl, although identification as arrow head can also not be excluded (compare Evison 1987, fig. 60, 149/3).

10. RF <10> Iron awl (Fig. 21.10)  
[1670] GP39, S25; phase 4.1. Complete. L74mm.
11. RF <16> Iron ?awl (Fig 21.11)  
[1670] GP39, S25; phase 4.1. Complete. L60mm.

Medieval

Whetstone

Part of a schist whetstone (RF <52>) was recovered from cleaning Trench 26 of the 1997 evaluation. This is most likely to be of medieval date.

Undated

Triangular ?weight

A triangular object (RF <51>), similar in shape to an Iron Age loomweight but lacking perforations, was found unstratified on the surface [1837]. The object is severely abraded and only c.60% survives. Its fabric is silty with common medium quartz and common black and red iron-rich inclusions. The object measures up to 45mm thick. Sides are noticeably saddled and measure up to 130mm+ long.

Both function and date of this object are uncertain. Similar, unperforated triangular objects dated to the Iron Age are generally discussed with triangular loomweights and have been noted, *e.g.* at Hengistbury Head and Woolbury (Poole 1995, 285). An interpretation as a loomweight seems unlikely considering the lack of suspension holes. Other suggestions for their use include oven bricks (Poole 1995, 285) and weights, *e.g.* thatch weights (*e.g.* Sudds 2006, 72).

Conclusions

The artefact and ecofact assemblages at Hill Farm in the main reflect the differing characteristics of the land use at Hill Farm; with the Middle Bronze Age assemblages dominated by cremation vessels, although the presence of early loomweights hints at weaving taking place from the Middle Bronze Age onwards up to the Early to Middle Saxon period. Objects of

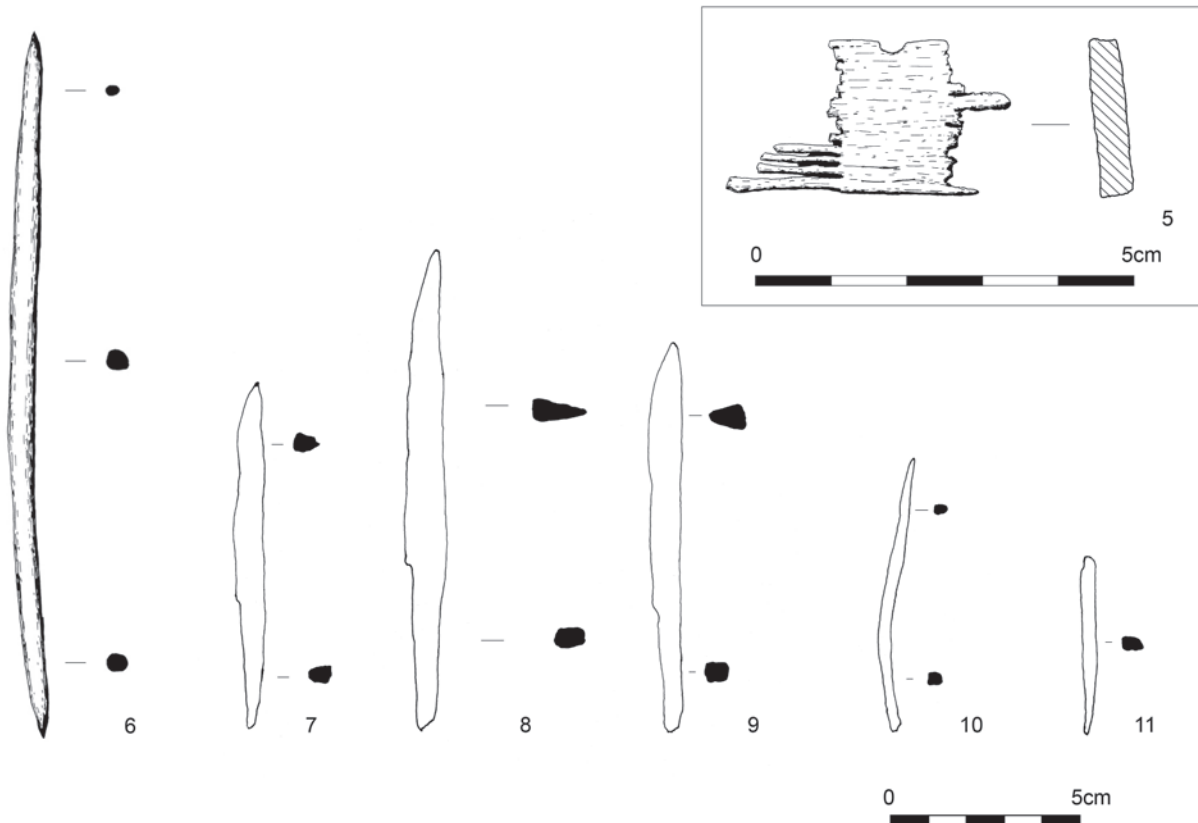


FIGURE 21: Registered Finds, nos. 5–11

the later periods represented are overwhelmingly domestic in function; in addition to pottery, finds suggest flour making, or the preparing of malt for brewing, was being undertaken. None of the finds are of high status and overall the assemblage is typical for field systems associated with rural settlements occupied over a long period of time.

## DISCUSSION

The results of the archaeological works at Hill Farm have established that this landscape has, to various degrees, been utilised since the Neolithic/Early Bronze Age. The artefactual assemblage suggests that there was some human presence in the landscape in the Mesolithic and Neolithic, but no features which could be definitively assigned to these periods have been identified, suggesting that occupation may have been transitory in nature, leaving little archaeological trace. There do not appear to be any monumental (*i.e.* large scale) structures which could be of Neolithic date in the vicinity of the site that could have acted as foci for activity. The earliest features on the site, which comprise two pits containing Early Bronze Age beakers, perhaps represent the extension of more permanent settlement into the area. Assigning land use on the basis of the limited number of features is problematic. However, Beaker pit [1531] could represent an early stage in the development of the ritual landscape at Hill Farm; such features have been noted in proximity with other Ardleigh Group cemeteries, for example at Ardleigh itself (Brown 1999) and Brightlingsea (Clarke and Lavender 2008).

The Middle Bronze Age cemetery, a ring-ditch of which lies close to but respecting the earlier pit, could be seen to represent a continuity of the ritual use of this area. Whilst there are a number of similarities between the Middle Bronze Age cemeteries in the north-east Essex area, a notable difference at Hill Farm is the absence of an earlier monumental structure which has been noted as a key element of the ritual landscape at other complexes, for example Moverons Pit, Little Bromley and Thorpe Le Soken. The possibility that such a monument may have been present nearby cannot however be entirely discounted; it may simply not have been identified as a cropmark.

It is also possible that this pre-Iron Age era saw the establishment of a field system, with fragments of field ditches being identified in the west of the site. This perhaps hints at a distinction in land use between the west and east of the site. Given the fragmentary nature of the remains, defining enclosure sizes or extensive layouts is not possible, but it is reasonable to suggest that they were rectilinear. Excavations at Hall Farm, Little Bentley, located on the opposite side of Holland Brook to Hill Farm, uncovered field boundary ditches dating from between the Early Bronze Age and the Late Iron Age (Barber 1994). The establishment of these early field systems may relate to agricultural intensification and increased occupation of the landscape.

Whilst there is a general paucity of definitively Late Bronze Age remains, there is a degree of continuity between the pre-Early Iron Age field system and that of the Late Iron Age, both being on broadly the same axis. These earlier boundaries may have persisted in the landscape despite their ditches ceasing to function. It is possible that either a slight dip or bank remained on the ground or that a hedged boundary was present. Pollen analysis of material from the bottom of Roman boundary

ditches at Farmoor, Oxfordshire, identified hawthorn and sloe, as well as other indications of the presence of trees and shrubs and thus it was concluded that they were hedged (Robinson 1978, 156). Environmental material from gully [852], located in Trench A at the northern edge of the Hill Farm site, also contained material which would suggest there was a hedge adjacent to this feature. Although both the Oxfordshire and Hill Farm examples are of Roman date it is possible that hedges were present at an earlier date.

Despite the presence of the early ritual landscape and field system, no domestic structures have been identified that pre-date the Early Iron Age; these presumably lay outside the investigated area. Early Iron Age settlement is represented by two probable storage buildings but no domestic structures; these could be the remains of an unenclosed settlement. It is possible that other, more ephemeral, occupation remains have not survived in the archaeological record.

For the Middle Iron Age, a small enclosure (ENC1) in the west of the site is the most tangible evidence of possible domestic settlement and bears some similarities in form and location to an example at Ardleigh (Brown 1999, 177). Here a small enclosure, including a roundhouse, was at a distance from its contemporary field systems and is thought to represent a deliberate attempt to isolate the occupants from their surroundings (Brown 1999, 177). There are a number of possible late prehistoric landscape features in the vicinity of the site and it would seem that Hill Farm is perhaps one of a network of small farmsteads utilising the Tendring Plateau in the prehistoric period in the area around Hill Farm. An unenclosed Middle or Late Iron Age settlement was identified through excavation at Hall Farm, to the north west of the site (EHER 3901/2; Fig. 1). To the west of this site a number of rectangular enclosures, some with associated round houses/ring-ditches, are identifiable on cropmark plots (see Fig. 1). Although the date of these features is unknown, they are possibly Iron Age farmsteads. One of these is located immediately to the north of Hill Farm. This enclosure has a ring-ditch in the corner and appears to be associated with a north to south orientated field system. This appears to be linked to Hill Farm by a trackway which crosses the valley. There is also part of an enclosure ditch in the field adjacent to Bretts Hall Cottages, to the south of the site and to the west of Crown Lane. There are a further six possible enclosures within c. 5km of the site.

The Late Iron Age field system, and those which followed, was based on a south-west to north-east alignment. This line runs along a change in the geology across the site. To the south of it the natural subsoil consisted of a thick band of brickearth-like material overlying mixed gravels. To the north the subsoil consisted of better-draining mixed gravels. It seems likely that the line was established on this orientation and on this basis each soil type would be suitable for differing agricultural practices, perhaps the better drained north for cultivation and the south for pasture. This division in land use may also in part reflect the division between the ritual and agricultural landscapes which had been established in the earlier prehistoric periods. The most significant change would appear to be the establishment of the trackway, which can be traced as cropmarks beyond the site boundaries towards modern Hill Farm at the north-east. It could perhaps provide a droveway between the grazing/pasture and a settlement.

Field systems of Phases 3.1a and 3.1b (Fig. 9) share a degree of continuity with those of the earlier phases; based on this same axis and presumably represent similar divisions in land use. Whilst the field system was reorganised through these periods, the general layout shows some broad continuance. It seems likely that some of the Late Iron Age boundary features may have formed part of this landscape, even when the ditches ceased to function. This continuity is paralleled regionally, for example at North Shoebury the Late Iron Age alignment of the field boundaries was maintained through the Roman period (Rippon 1991). At Buildings Farm, Great Dunmow, a series of three field systems were identified, the first of which probably dated to the Late Iron Age. Again the alignment of the fields was maintained, although each successive system did not incorporate elements of the previous one (Lavender 1997). The more significant changes seem to have occurred in the later part of the Early Roman period (Phase 3.1c). This period shows a comparatively greater degree of change to that preceding it with the layout appearing more regimented and the enclosed fields being larger. This pattern of landscape development, comprising the establishment of trackway R3 leading to the northern edge of the site, would also suggest a shift in focus. There is a significant degree of continuity between Phase 3.1c and Phase 3.1d (Middle Roman—mid- to late 2nd century). The later phase retains much of the previous layout but adds some land divisions to the north which, when considered with the cropmark evidence, would suggest subdivision of the landscape in this area into smaller land units, perhaps around a settlement.

The overall pattern would appear to be one of formalisation and expansion through the centuries. The reorganisation would also suggest a shift in focus following the establishment of R3 in the later part of the Early Roman period. The pattern of pottery deposition also alters during this phase, there being a steady increase in the amounts present. The groups of pottery are larger, with seven medium sized groups in comparison to four dating to the Late Iron Age.

This arrangement of the field systems would appear to have developed organically, being influenced by the topography and, as discussed previously, the geology; their dimensions do not conform to those of any standard Roman land division unit, such as the *actus*. The system appears to be a 'best fit' for the plateau overlooking the river and stream valleys to the north and east. The cropmarks of field boundaries in the wider landscape are essentially undateable, but some general comments can be made about them in light of the results of the Hill Farm excavations. They too appear to be based around the local topography; to the south of Wheeley Brook the boundaries run roughly perpendicular to the course of the stream. To the north the layout is fairly regular, orientated roughly north to south, gradually becoming more irregular towards the confluence of Holland Brook and its tributary.

The economy at Hill Farm was probably largely based on agriculture, surviving in the archaeological record as field systems. Unfortunately in the case of Hill Farm there is little environmental or faunal evidence and as such only general observations can be made on the basis of environmental analysis from elsewhere in the county. This suggests a mixed economy in the Middle Bronze Age with agricultural intensification in the Late Bronze Age (Brown 1996). The sparse environmental evidence for the Early Iron Age suggests

a landscape dominated by grassland (Sealey 1996). It seems likely that a combination of arable and pasture was present during the Late Iron Age, Early and Mid Roman periods at Hill Farm. All layouts show a combination of open areas, usually in the areas of less well drained soils, and smaller fields. The position of the trackways suggests that the large open areas may have been grazed. Although the plant macrofossils from environmental samples were not of a high density, some cereal grains and chaff were identified. These were oat, barley, rye and spelt wheat. Unfortunately it was not possible to identify any specific activity zones. The animal bone was also poorly preserved and largely unidentifiable but cattle and pig were present. The presence of Roman settlement at Hill Farm is inferred from the presence of cultural material in the boundary ditches and presumably lay outside the investigated site area. It is postulated that it may lie on the crest of the hill, overlooking the Holland Brook and approached by trackways R2/3.

With no physical evidence, it is difficult to decide what sort of settlement may have been present at Hill Farm. The Late Iron Age and Early Roman pottery assemblage was of relatively low status, but that of the Middle Roman period was of relatively high status when compared with other assemblages recovered from the locality, such as at Moverons Pit (Brightlingsea), Gutteridge Wood (Wheely), Dead Lane (Little Clacton) and Montana Nursery (Little Clacton). There is little in the way of finds that would suggest a villa stood close to the site, since as mentioned above there was relatively little tile or other building material. There was also very little metalwork and it seems more likely that the Hill Farm settlement was an isolated farmstead, which was the most common of settlement types. The Late Iron Age and Roman pottery assemblage also provides indications of the trade links of Hill Farm. The majority of the Late Iron Age material was locally made but there was some North Gaulish material. The Early Roman material is again largely local, with some material from Colchester. There were also imports from north Kent and Gaul.

Both the pottery evidence and the phasing of the site would indicate that activity on the site declined around the end of the 2nd century. This may be due to a decline in agriculture or a reorganisation of estates. This is reflected in the archaeological record at sites such as Mucking, which lost its 'on site' settlement in the Late Roman period, and in the towns of Essex such as Braintree and Colchester, which began to shrink during this period (Going 1996). There are many possible reasons for this decline. Small farms seem to have been absorbed into *latifundia*, large villa estates, while general economic decline was prompted by trouble on the continent and a change in climate which resulted in population displacement (Going 1996). This may have occurred at Hill Farm where there was a hiatus in activity through the Late Roman period.

The landscape was re-occupied in the Early/Middle Saxon period. In contrast to the earlier phases, features were dispersed, with a possible focus in the eastern part of the site where the well, possible pits and possible SFB were located. The most interesting feature of this period was the well as it contained a large number of artefacts of a domestic nature, particularly relating to textile production. The evidence, albeit fragmentary, for Anglo-Saxon settlement is both significant and rare for this part of Essex, especially as the finds indicate a relatively early, possibly 6th-century, date. The finds from these features, particularly from the well, support this interpretation.



Comparable, but perhaps better-constructed, Anglo-Saxon wells have been found at Slough House Farm in the Lower Blackwater valley (Wallis and Waugham 1998, 44), where contemporary activity was similarly dispersed across the site.

No features or finds of later medieval date were identified, although the possibility that some of the undated features may be associated with this period cannot be discounted. The reasons for this are unknown, but it could be that the modern landscape layout could reflect and, therefore, mask any later medieval archaeological remains. Some elements are also likely to have persisted in the landscape; for example the projected line of R2/3 which runs on a line towards Little Bentley windmill. This could suggest that the windmill was sited to utilise the pre-existing trackway. It would also therefore suggest that the trackway remained in use until at least the medieval period, suggesting a significant degree of continuity in the landscape from antiquity through to the medieval and indeed post-medieval periods.

The field system and possible settlements at Hill Farm are part of an extensive multi-period landscape on the Tendring plateau. The lighter soils and gravels of the plateau have encouraged settlement since the prehistoric period onwards, as demonstrated at Hill Farm. This is amply demonstrated by the frequency of cropmarks in the surrounding area.

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#### BIBLIOGRAPHY

- Alldritt, D. 2006a, *Wood charcoal from White Horse Stone, Aylesford, Kent*, CTRL Specialist Report Series
- Alldritt, D. 2006b, *The wood charcoal from Beechbrook Wood, Hothfield, Kent*, CTRL Specialist Report Series
- Alldritt, D. 2006c, *The wood charcoal from Saltwood Tunnel, Kent*, CTRL Specialist Report Series
- Anderson, S. 2005, 'Cremated Bone' in Holloway, B. and Spencer, P., *An archaeological excavation at Birch Pit northern extension, Maldon Road, Colchester, Essex; June–August 2003*, unpubl. CAT Report 289. Available: <<http://cat.essex.ac.uk/reports/CAT-report-0289.pdf>> (Accessed 17 September 2017)
- Atkinson, M. and Preston S. 2001, 'Prehistoric Settlement and Burials at Elms Farm, Heybridge', *Essex Archaeol. Hist.*, 3rd Ser., 32, 42–74
- Baker, M. 1996, *Discovering the Folklore of Plants* (3rd edition, Oxford, Shire)
- Barber, A. 1994, *Land at Hall Farm, Little Bentley, Essex: Archaeological Fieldwork*, unpubl. Report
- Barford, P. 2001, *Excavations at Little Oakley, Essex 1951–78, Roman Villa and Saxon Settlement*, E. Anglian Archaeol. 98
- Barford, P.R. 1995, 'Fired Clay', in Wymer, J. J. and Brown N. R., *Excavations at North Shoebury: Settlement and Economy in South-East Essex 1500BC–AD1500*, E. Anglian Archaeol. 75, 125–127
- Barford, P.M. and Major, H.J. 1992, 'Later Bronze Age Loomweights from Essex', *Essex Archaeol. Hist.*, 3rd Ser., 23, 117–120

- Beltrán Lloris, M. 1970, *Las Anforas Romanas en España*, Monografías Arqueológicas, Anejos de Caesaraugusta 8 (Zaragoza)
- Blinkhorn, P. 2012, *The Ipswich ware project: ceramics, trade and society in Middle Saxon England*, Medieval Pottery Research Group Occ. Pap. 7 (Dorchester, The Dorset Press)
- Brown, N. 1988, 'A Late Bronze Age enclosure at Lofts Farm, Essex', *Proc. Prehist. Soc.* 54, 249–302
- Brown, N. 1996, 'The archaeology of Essex c.1500–500BC', in Bedwin, O. (ed.), *The Archaeology of Essex; Proceedings of the Writtle Conference* (Essex County Council), 26–37
- Brown, N. 1997, 'Prehistoric pottery', in Langton, B. and Holbrook, N., 'A prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 12–46
- Brown, N. 1999, *The Archaeology of Ardleigh, Essex: excavations 1955–1980*, E. Anglian Archaeol. 90
- Brown, N. 2001, 'Pottery', in Atkinson, M. and Preston, S., 'Prehistoric Settlement at Elms Farm, Heybridge', *Essex Archaeol. Hist.*, 3rd Ser., 32, 42–74
- Brown, N. 2008, 'Prehistoric Pottery' in Clarke, C.P. and Lavender, N.J., *An Early Neolithic Ring-ditch and Middle Bronze Age Cemetery: excavation and survey at Brightlingsea, Essex*, E. Anglian Archaeol. 126, 29–43
- Case, H. 1993, 'Beakers: deconstruction and after', *Proc. Prehist. Soc.* 59, 241–268
- Challinor, D. 2006, *The wood charcoal from Pepper Hill, Northfleet, Kent*, CTRL Specialist Report Series
- Challinor, D. 2007, 'Wood charcoal', in Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. (eds), *A Larger Slice of Rural Essex. Archaeological Discoveries from the A120 between Stansted Airport and Braintree*, Oxford/Salisbury: Oxford Wessex Archaeology, CD ROM 39
- Clarke, C.P. and Lavender, N. 2008, *An Early Neolithic Ring-ditch and Middle Bronze Age Cemetery: Excavation and survey at Brightlingsea Essex*, E. Anglian Archaeol. 126
- Clarke, D.L. 1970, *Beaker Pottery of Great Britain and Ireland* (Cambridge Univ. Press)
- Cox, C. 1997, *Tendring Reservoir: Aerial photographic assessment, Archaeology*
- Dinwiddy, K.E. and McKinley, J.I. 2009, 'A Potentially Mortuary-related deposit at Star Lane, Manston', in Andrews, P., Dinwiddy, K.E., Ellis, C., Hutcheson, A., Philpotts, C., Powell, A.B. and Schuster, J., *Kentish Site and Sites of Kent: a Miscellany of Four Archaeological Excavations*, Wessex Archaeology Report 24, 81–2
- Doherty, A. 2013, 'Pottery: site assemblages', in Perring, D. and Pitts, M. (eds), *Alien cities: consumption and the origins of urbanism in Roman Britain*, Spoilheap monogr. 7, 93–135
- ECC HEM 2008, *Tendring District. Historic Environment Characterisation Project*, Essex County Council Historic Environment Management
- Evison, V.I. 1987, *Dover: the Buckland Anglo-Saxon Cemetery*, (London, HBMCE)
- Fell, C.I. 1953, 'An Early Iron Age settlement at Linton, Cambridgeshire', *Proc. Camb. Antiq. Soc.* 46, 31–43
- Gale, R. 2009, 'Charcoal', in Hutcheson, A. and Andrews, P. (eds), *A Late Bronze Age, Anglo-Saxon and Medieval Settlement Site at Manston Road, Ramsgate. 1995–7*, Wessex Archaeology Report 24
- Germany, M. 2007, *Neolithic and Bronze Age Monuments and Middle Iron Age Settlement at Lodge Farm, St Osyth, Essex*, E. Anglian Archaeol. 117
- Goffin, R. 2003, 'The Loom Weights', in Malcolm, G., Bowsher, D. and Cowie, R., *Middle Saxon London. Excavations at the Royal Opera House 1989–99*, MOLA Monogr. 15 (London), 216–222
- Going, C.J. 1987, *The Mansio and other sites in the south-eastern sector of Caesariomagus: the Roman pottery*, *Counc. Brit. Archaeol. Res. Rep.* 62
- Going, C.J. 1996, 'The Roman Countryside', in Bedwin, O. (ed), *The Archaeology of Essex; Proceedings of the Writtle Conference*, Essex County Council, 95–108
- Going, C.J. and Belton, J. 1999, 'Roman pottery', in Brown, N.R., *The archaeology of Ardleigh, Essex: Excavations 1955–1980*, E. Anglian Archaeol. 90, 125–157
- Gurney, D. 1988, 'Roman pottery', in Clarke, C.P., 'Roman Coggeshall: excavations 1984–85', *Essex Archaeol. Hist.*, 3rd Ser., 19, 59–64
- Hamerow, H. 1993, *Excavations at Mucking. Volume 2: the Anglo-Saxon settlement*, (London, English Heritage)

- Hawkes, C.F.C. and Hull, M.R. 1947, *Camulodunum. First Report on the Excavations at Colchester 1930-1939*, Reports of the Research Committee of the Society of Antiquaries of London 14
- Holbert, P.R. and Erith, F.H. 1965, 'The Pottery', in 'The Roman Site at Elm Park, Ardleigh', *Colchester Archaeological Group Bulletin* 8, 18–22
- Holden, J.L., Phakley, P.P. and Clement, J.G. 1995a, 'Scanning electron microscope observations of incinerated human femoral bone: a case study', *Forensic Science International* 74, 17–28
- Holden, J.L., Phakley, P.P. and Clement, J.G. 1995b, 'Scanning electron microscope observations of heat-treated human bone', *Forensic Science International* 74, 29–45
- Huggins P.J. 1978, 'Excavation of a Belgic and Romano-British farm with Middle Saxon cemetery and churches at Nazeingbury, Essex, 1975–6', *Essex Archaeol. Hist.*, 3rd Ser., 10, 29–117
- Hurst, J.G. 1959, 'Middle Saxon Pottery', in Dunning, G.C., Hurst, J.G., Myres, J.N.L. and Tischler, F. (eds), 'Anglo-Saxon Pottery: A Symposium', *Medieval Archaeol.* 3, 13–31
- Hurst, J. 1976 (reprinted 1986), 'The Pottery' in Wilson, D. (ed.), *The Archaeology of Anglo-Saxon England*, (Cambridge Univ. Press), 283–348
- Ingle, C. and Saunders, H. 2011, *Aerial Archaeology in Essex: the role of the National Mapping Programme in interpreting the landscape*, E. Anglian Archaeol. 136
- Langton, B. and Holbrook, N. 1997, 'A prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 12–46
- Lavender, N. 1997, 'Middle Iron Age and Roman Settlement at Great Dunmow: Excavations at Buildings Farm 1993', *Essex Archaeol. Hist.*, 3rd Ser., 28, 47–92
- Longworth, I., Ellison, A. and Rigby, V. 1988, *Excavations at Grimes Graves Norfolk, 1972-1976, Fascicule 2 The Neolithic, Bronze Age and later pottery* (London, British Museum Press)
- Macpherson-Grant, N. 1992, 'A Review of Late Bronze Age pottery in East Kent', *Canterbury's Archaeology 1991-1992*, 55–63
- Major H. 1998, 'Fired Clay', in Carter, G.A., *Excavations at the Orsett 'Cock' Enclosure, Essex, 1976*, E. Anglian Archaeol. 86, 106–110
- Major, H. 2004, 'The dating of Puddingstone querns', *Lucerna: The Roman Finds Group Newsletter* 27, 2–4
- Martin, T. S. 1996, 'A group of finds from the vicinity of the Noah's Ark Roman villa at Brightlingsea, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 27, 311–319
- Mays, S. 1999, 'Cremated bone from CEU excavations, and unpublished bone from earlier work', in Brown, N.R., *The Archaeology of Ardleigh, Essex: 1955-1980*, E. Anglian Archaeol. 90, 158–161
- McKinley, J.I. 1993, 'Bone fragment size and weights of bone from modern British cremations and their implications for the analysis of archaeological cremations', *Int. J. Osteoarchaeol.* 3, 283–7
- McKinley, J.I. 2004, 'Compiling a skeletal inventory: cremated human bone', in Brickley, M., and McKinley, J.I. (eds), *Guidelines to the Standards for Recording Human Remains*, British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 9–12
- McKinley, J. 2006, *Channel Tunnel Rail Link, London and Continental Railways, Oxford Wessex Archaeology Joint Venture, Human remains from Section 1 of the Channel Tunnel Rail Link, Kent*. Available: <[http://archaeologydataservice.ac.uk/catalogue/adsdata/arch-335-1/dissemination/pdf/PT2\\_Spec\\_Reps/05\\_Human\\_remains/HUM\\_schemewide\\_report/HUM\\_SSR\\_text.pdf?CFID=24&CFTOKEN=77235F2B-44C3-49ED-95724CB66F5E3277](http://archaeologydataservice.ac.uk/catalogue/adsdata/arch-335-1/dissemination/pdf/PT2_Spec_Reps/05_Human_remains/HUM_schemewide_report/HUM_SSR_text.pdf?CFID=24&CFTOKEN=77235F2B-44C3-49ED-95724CB66F5E3277)> (Accessed 20 September 2017)
- McKinley, J. 2007, 'Human Bone', in Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A., *A Slice of Rural Essex: Archaeological discoveries from the A120 between Stansted Airport and Braintree*, Oxford Wessex Archaeology Monogr. 1, 78
- Monaghan, J. 1987, *Upchurch and Thameside Roman Pottery: A ceramic typology for northern Kent, first to third centuries AD*, Brit. Archaeol. Rep., Brit. Ser., 173
- Poole, C. 1984, 'Objects of Baked Clay', in Cunliffe, B., *Danebury: An Iron Age Hillfort in Hampshire. Vol 2 The Excavations 1969-1978: the Finds*, Counc. Brit. Archaeol. Res. Rep. 52, 398–407
- Poole, C. 1995, 'Loomweights versus Oven Bricks', in Cunliffe, B., *Danebury: an Iron Age Hillfort in Hampshire. Volume 6: A Hillfort Community in Perspective*, Counc. Brit. Archaeol. Res. Rep. 102, 285–286
- Rippon, S. 1991, 'Early Planned Landscapes in south-east Essex', *Essex Archaeol. Hist.*, 3rd Ser., 22, 46–60
- Robinson, M. 1978, 'The Problem of Hedges enclosing Roman and Earlier fields', in Bowne, H.C. and Fowler, P.J. (eds), *Early Land Allotment in the British Isles: A survey of Recent work*, Brit. Archaeol. Rep., Brit. Ser., 48, 155–159
- Rodwell, W.J. 1987, 'The pottery and its implications', in Buckley, D.G., Hedges, J.D. and Priddy, D., *Excavation of a Cropmark Enclosure Complex at Woodham Walter, Essex 1976, and An Assessment of Excavated Enclosures in Essex*, E. Anglian Archaeol. 33, 20–39
- Rodwell, K.A. 1988, *The prehistoric and Roman settlement at Kelvedon, Essex*, Counc. Brit. Archaeol. Res. Rep. 63
- Rodwell, R. 1976, 'Some unrecorded archaeological discoveries in Essex, 1946-75', *Essex Archaeol. Hist.*, 3rd Ser., 8, 234–48
- Sealey, P.R. 1985, *Amphoras from the 1970 Excavations at Colchester Sheepen*, Brit. Archaeol. Rep., Brit. Ser., 142
- Sealey, P.R. 1996, 'The Iron Age', in Bedwin, O. (ed.), *The Archaeology of Essex: Proceedings of the Writtle Conference* (Essex County Council), 46–68
- Taylor, M. 1981, *Wood in Archaeology* (Aylesbury, Shire Archaeology)
- Tomber, R.S. and Dore, J. 1998, *The National Roman Fabric Reference Collection*, Museum of London Archaeology Service Monogr. 2 (London)
- Sudds, B. 2006, 'The Clay Objects', in Carew, T., Bishop, B., Meddens, F. and Ridgeway, V., *Unlocking the Landscape. Archaeological Excavations at Ashford Prison, Middlesex*, 68–73
- Tyler, S. 1996, 'Early Saxon Essex AD 400–700', in Bedwin, O. (ed.), *The Archaeology of Essex, Proceedings of the Writtle Conference* (Essex County Council), 108–17
- Tyler, S. 2005, 'The Saxon Pottery', in Letch, A., 'A Bronze Age, Roman and Saxon site at Bishops Park College, Jaywick Lane, Clacton-on-Sea', *Essex Archaeol. Hist.*, 3rd Ser., 36, 61–66
- Tyrrell, R. 2015, 'Baked clay', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993-5*, Internet Archaeology 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.tyrrell1>> (Accessed 20 September 2017)
- Vince, A. and Jenner, A. 1991, 'The Saxon and Early Medieval Pottery of London' in Vince, A. (ed.), *Aspects of Saxo-Norman London: II Finds and Environmental Evidence*, LAMAS Special Paper 12, 19–119
- Wallis, S. and Waughman, M. 1998, *Archaeology and the landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82
- Walton Rogers, P. 1999, 'Textile Making Equipment', in MacGregor, A., Mainman, A.J. and Rogers N.S.H., *Craft, Industry and Everyday Life: Bone, Antler, Ivory and Horn from Anglo-Scandinavian and Medieval York. The Archaeology of York, Volume 17/12: the Small Finds. York, 1964-1971*



# Later prehistoric remains and Late Iron Age to early Roman enclosures at Roxwell Quarry

**Mark Germany**

with contributions from Lucy Allott, Gemma Ayton, Anna Doherty, Karine Le Hégarat, Hilary Major, Scott Martin, Elke Raemen, Ros Tyrrell, Lucy Sibun and Helen Walker

*Archaeological rescue excavation in advance of mineral extraction at Roxwell Quarry revealed multiphase landscape remains. The earliest remains are sparse but are indicative of Late Bronze Age and Middle Iron Age domestic activity and settlement within the vicinity. The majority of archaeological features comprised two phases of enclosure, dating from the mid 1st century BC to the mid 1st century AD and the mid 1st century AD respectively. A Late Iron Age/Early Roman cremation burial, containing three grog-tempered jars, a set of tweezers and a copper-alloy bracelet was also found. A small group of 13th-century pits, ditches and pot sherds, post-medieval to modern field ditches and a trackway constitute post-Roman period land use.*

## INTRODUCTION

Archaeological excavation in advance of mineral extraction within three adjoining areas (1 to 3) at Roxwell Quarry was undertaken by the Essex County Council Field Archaeology Unit in 1998, 1999 and 2000 respectively. The planning consent for the mineral extraction predated the introduction of Planning and Policy Guidance 16 (PPG16) on Archaeology and Planning (Department of the Environment 1990), resulting in the excavation of the three areas being carried out under rescue conditions.

## BACKGROUND

Roxwell Quarry sits within mostly open, undulating, arable farmland, 1.8km south of the scheduled site of a large Roman villa complex at Chignall St James (Essex Scheduled Monument (ESM) 193) (Fig. 1), and 5km north-west of the Roman town of *Caesaromagus* (present-day Chelmsford). Areas 1 to 3 have a combined area of 5.4ha and occupy a ridge of high ground, overlooking the valley of the River Can to the south and west. The underlying geology consists of chalky till with outwash sands, silts and clays, overlain by 0.3–0.4m of topsoil.

Archaeological excavations south of the villa between 1977–1981 uncovered numerous archaeological remains, including Mesolithic, Late Neolithic and Early Bronze Age flint artefacts, and a Middle Iron Age enclosure which was subsequently occupied by a roundhouse during the Late Iron Age (Clarke 1998) (Fig. 1). It is likely that the villa was founded soon after the Roman conquest and was in use until the late 4th century. An important component of its economy was probably stock-keeping, with a focus on cattle. The villa underwent major rebuilding during AD 120–245 and a formal definition of its enclosure between c.AD 245–285. A nearby Late Roman cemetery contained graves of about twenty-five people, possibly *coloni* (tenant farmers); some of the graves comprised decapitated inhumations.

Topsoil stripping in advance of mineral extraction between Chignall Hall and Stevens Farm in 1986 and 1989 revealed three small, non-adjoining, areas of archaeological remains (Fig. 1). These included a probable 1st-century AD roundhouse in a small enclosure (Bedwin 1987), medieval strip fields, and footings of a 13th-century timber building (Brooks 1992).

The topsoil overlying Roxwell Quarry Areas 1 to 3 was poorly removed using a mechanical box-scraper prior to

archaeological attendance (Fig. 2). Area 2 and the western half of Area 1 were the most variably stripped, leaving many of their archaeological features either truncated and fragmentary or under-stripped and partially exposed. A large post-medieval or modern disturbance occupied the middle of Area 3 and was probably an in-filled quarry pit (Figs 2 and 6). It was not investigated.

## THE SITE

The archaeological features largely comprised ditches accompanied by small numbers of pits and cremation burials, cut into natural, with their upper portions lost to plough disturbance. These situations were in some cases exacerbated by the aforementioned stripping of Areas 1 to 3 by box scrapers. Most of the features could be dated by finds and stratigraphic and spatial relationships, and could be separated into four broad periods, namely later prehistoric, Late Iron Age to Early Roman, medieval and post-medieval to modern. There was no layered stratigraphy, other than topsoil, and the density of cut features was generally modest, with no area containing particularly complex remains.

### Period 1: Later Prehistoric

The investigation of the site recovered 916 prehistoric pot sherds, sixty pieces of struck flint and one hammerstone, nearly all of which were either undiagnostic or residual items in Late Iron Age/Early Roman features. Much of the flint assemblage is dated, on technological grounds, to the Late Bronze Age/Early Iron Age period. Other later prehistoric remains, perhaps representing use of the site and its vicinity for occupation, included a substantial pit [231], a four-post structure (G9), and a small number of enclosure ditches (G13, G15 and G16). The archaeological remains of Period 1 can be divided into two distinct phases: Late Bronze Age and Middle Iron Age.

#### *Phase 1.1: Late Bronze Age*

Residual artefacts and a large oval pit [231] represent occupation within Areas 1 to 3 during the Late Bronze Age (Fig. 3). Pit [231] had near vertical sides and measured 1.51m long, 1.12m wide and 0.66m deep. Its single dark-greyish brown silty clay fill contained frequent flecks and fragments of baked clay and charcoal, together with occasional small pockets of re-deposited chalky till, perhaps implying that it had

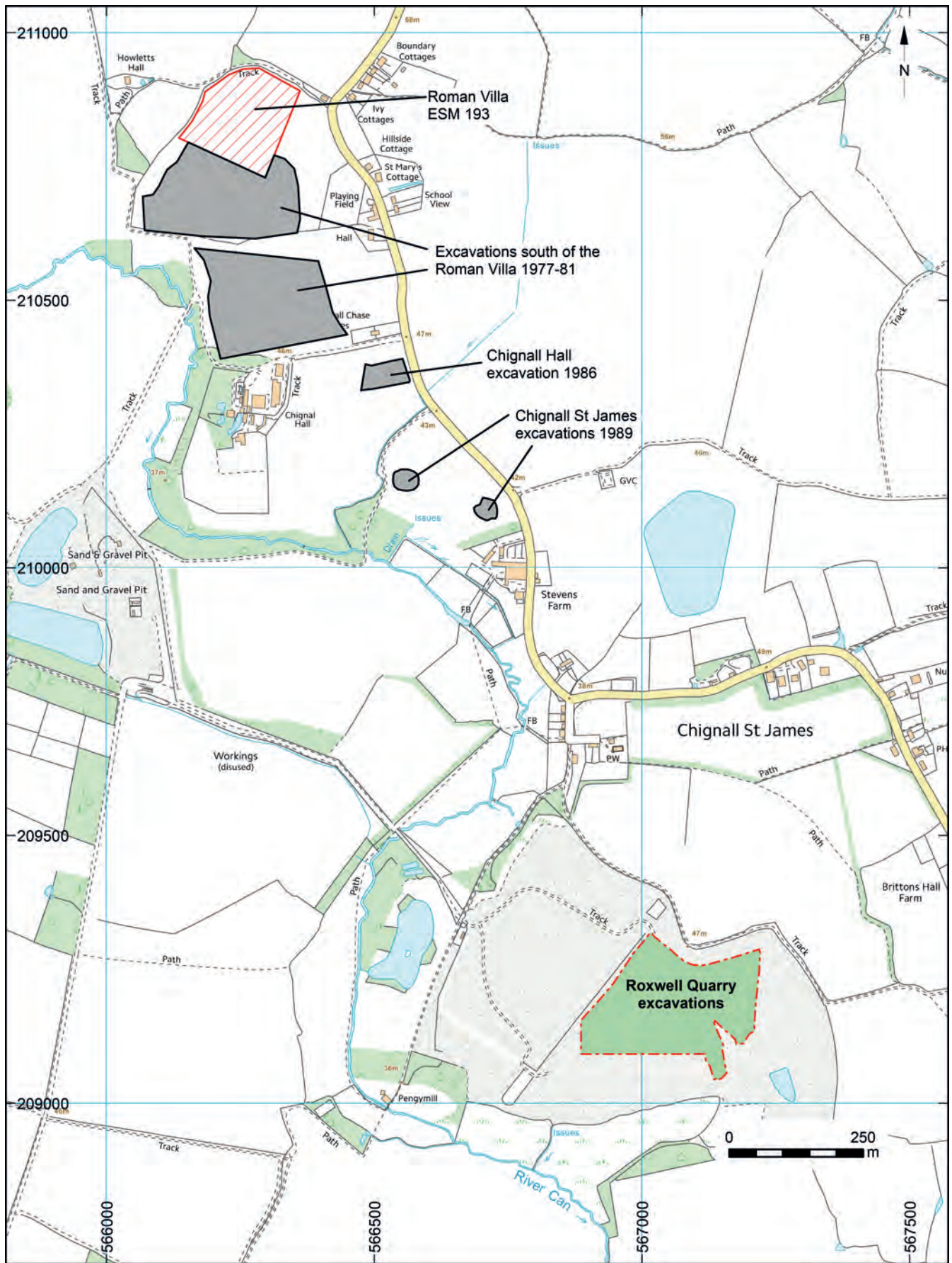


FIGURE 1: Roxwell Quarry, site location  
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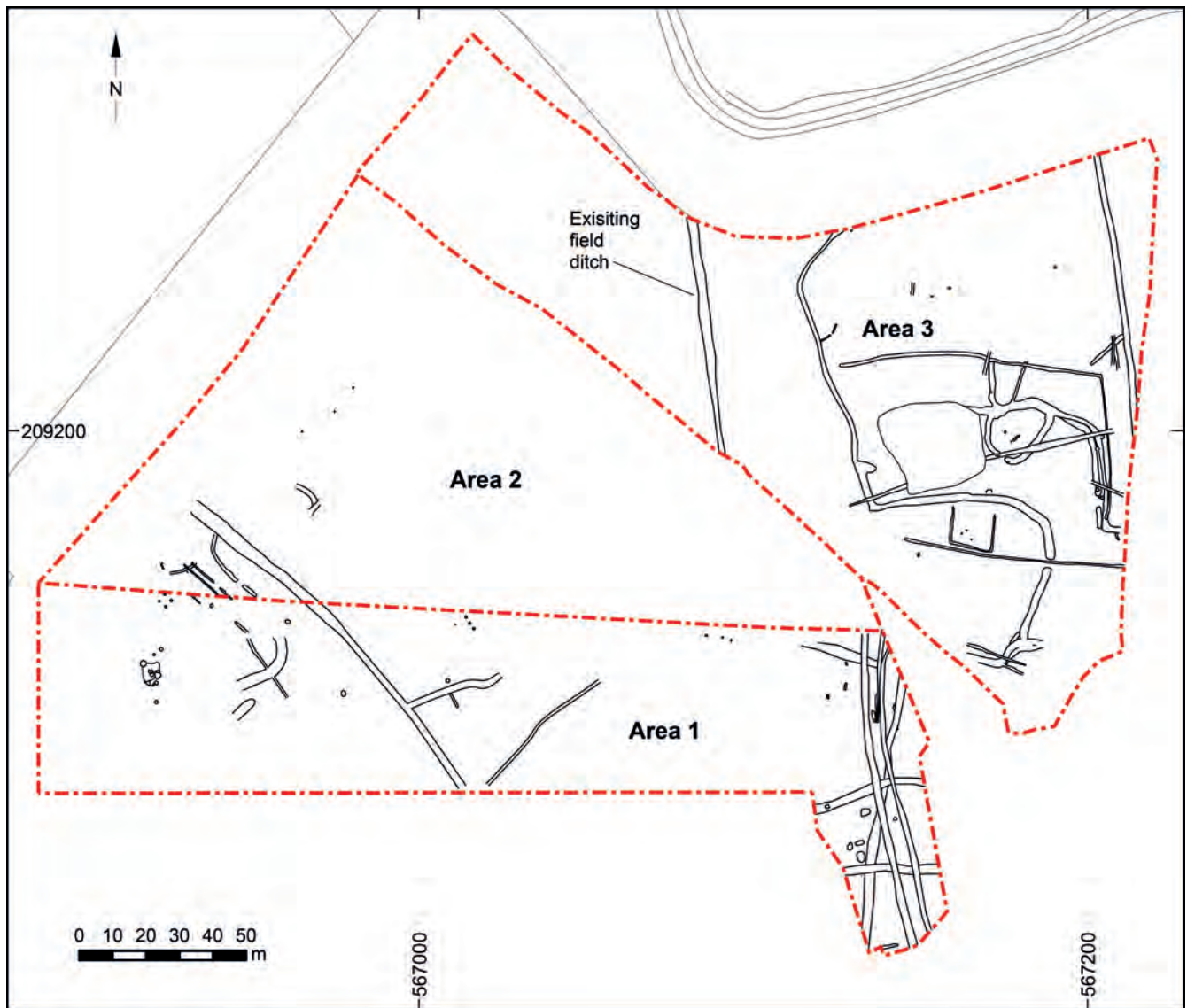


FIGURE 2: Areas 1 to 3

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been deliberately backfilled using a combination of natural, topsoil and domestic debris. Artefacts from it comprised four cylindrical loomweights, a large assemblage of Late Bronze Age pottery, and a small quantity of animal bone. None of these artefacts, either as a group or individually, presented clear evidence for ritual deposition.

Possible and probable Middle Iron Age features lay at the western ends of Areas 1 and 2, comprising a four-post structure (G9) and three Middle Iron Age or earlier ditches (G13, G15 and G16). Other features within that general area composed a cluster of thirteen, intercutting, later prehistoric pits (G1), although none of them were accurately datable.

Structure G9 was represented by four post-holes [267, 281, 283 and 286], demarcating the corners of a rectangular timber structure measuring 2.6m wide and 2.8m long (Figs 3 and 4). The post-holes measured between 0.25m and 0.43m deep, were generally square in plan and steep-sided in profile. Two fills occupied each, but presented no evidence for post-pipes. Dating evidence for G9 consisted of seven later prehistoric potsherds, all from post-hole [281], five of which can be attributed to the Middle Iron Age period. Structure G9 is suggested to have been

an elevated granary. A group of four post-holes [223, 225, 227 and 229] approximately 100m east of G9 are conjectured to be remnants of another later prehistoric structure (G7) but provided no dating evidence to make it more credible (Figs 3 and 4).

Fragments of ditches, possibly representing enclosure boundaries, lay near the west end of Area 2 and included three which could have been in use during the Middle Iron Age period (G13, G15 and G16) (Fig. 3). Ditches G13 and G15 contained no finds but were cut by possible Late Iron Age/Early Roman ditches G11 and G12, and Middle Iron Age ditch G16 respectively. G16 the most substantial of the three measured 0.6m deep. Its contents included 128 sherds of Middle Iron Age pottery.

Pit group G1 at the west end of Area 1 consisted of a minimum of fourteen rounded and irregular, mostly small, shallow pits [2, 10, 13, 15, 17, 19, 23, 25, 27, 30, 33, 35, 37 and 51], nearly all of which were intercutting (Fig. 3). Their dating evidence comprised a collection of 135 small sherds of undiagnostic later prehistoric pottery, about 50% of which came from pit [51]. The functions of the pits were not evident.

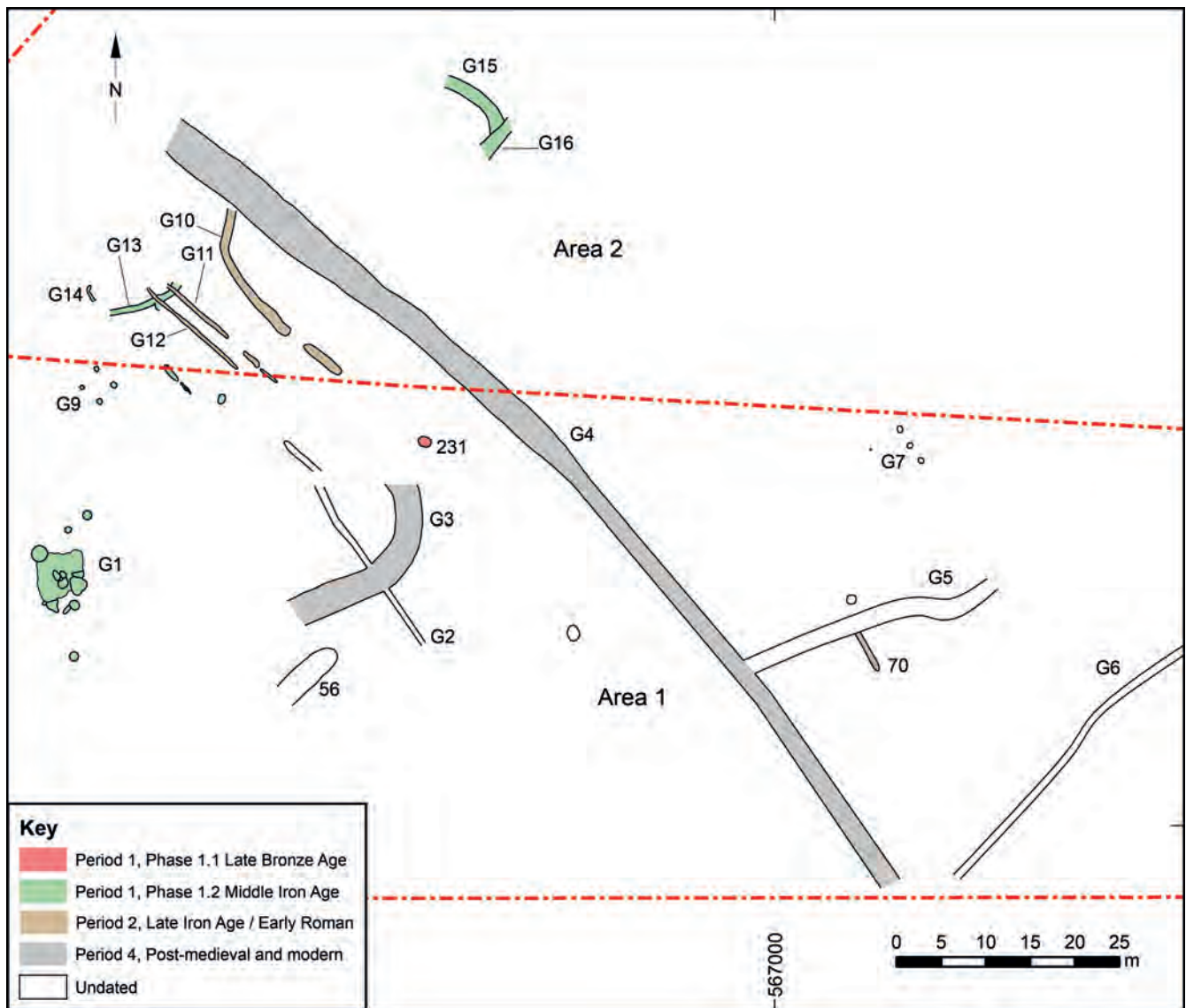


FIGURE 3: West end of Areas 1 and 2

**Period 2: Late Iron Age to Early Roman**

The majority of the features discovered by the archaeological work denoted two phases of Late Iron Age to Early Roman enclosures, with those of Phase 2.2 appearing less substantial, though more formal, than those of 2.1. Other Late Iron Age to Early Roman remains comprised pits and a small number of cremation burials.

*Phase 2.1: Mid 1st century BC to mid 1st century AD*  
**Enclosure ditches**

Eighteen ditches collectively define Phase 2.1 enclosures and boundaries, three of which were located near the western end of Area 2 (G10 to G12) (Fig. 3), and the remainder within Area 3 and the eastern end of Area 1 (G22, G23, G27 to G29, G33, G35 to G42, and G46) (Figs 5 and 6). Nearly all of the enclosures were irregular in appearance, demarcated by ditches which were broad and/or curved or slightly wavy. G35, the exception to this, was defined by a narrow ditch and largely straight-sided.

Ditches G10, G11 and G12 at the western end of Area 2 contained small quantities of Late Iron Age/Early Roman potsherds in their fills and were probably in use during Phase 2.1 (Fig. 3). Ditch G10 was the most substantial of them with

a depth of 0.4m. A 2m-wide gap interrupted its course and was probably an entranceway. Ditches G10 and G11 ran parallel to each other and cut later prehistoric ditch G13.

The ditches of Area 3 and the east end of Area 1 varied in width and depth and were slightly irregular and meandering in plan (Figs 5 and 6). The most substantial of them (G23, G27 and G35) were c.2.9m wide and 1.35m deep, with the depths of the others lying between 0.75m to 1.2m. Ditch G35 became broader and deeper from north to south. Ditch G33 was consistently small and shallow and formed three sides of a straight-sided enclosure. Evidence for ditch maintenance was confined to recuts [382] and [393] in excavated segments [360] and [361], across the east to west arm of G35, immediately north of the open end of the small square enclosure, which was defined by ditch G33 (Figs 6 and 7, sections 1 and 2). Both recuts were identified in section only and were only half as deep as their initial ditches.

The fill sequences of each of the excavated ditch segments, excluding the two aforementioned recuts, consisted of a minimum of three fills. These generally comprised initial weathering deposits of displaced chalky till beneath later deposits of friable brownish-grey or greyish-brown soil, probably deriving

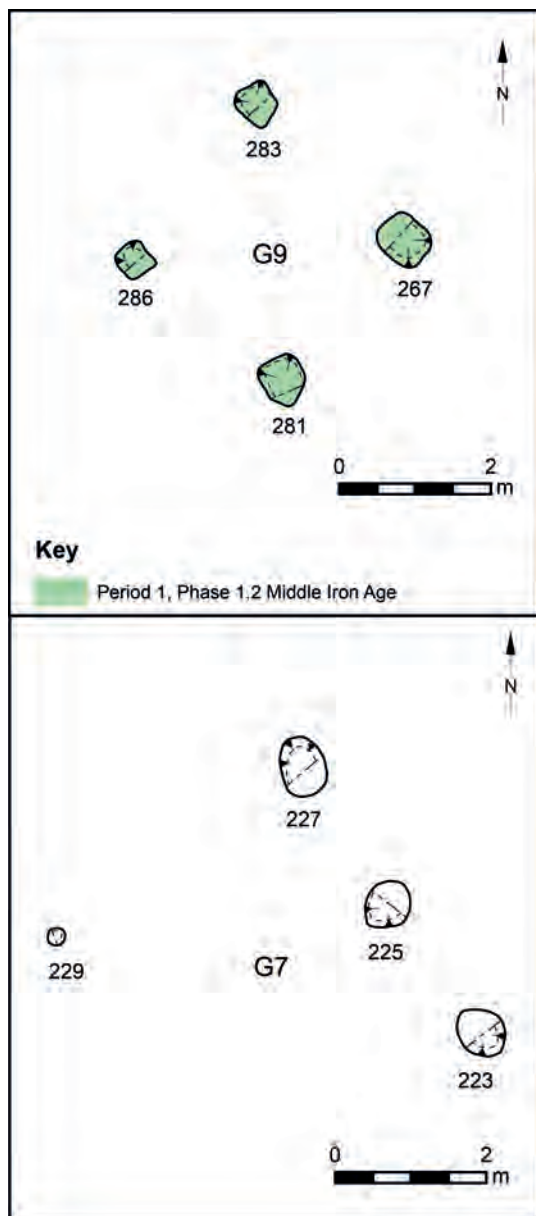


FIGURE 4: Structures G7 and G9

from silting and displacement of topsoil, mainly through erosion, with additional contributions perhaps coming from deliberate backfilling. The importance of the ditches as barriers and boundaries is likely to have decreased over time since their later fills generally contained domestic debris such as fragments of animal bones, baked clay, and pottery. The finds suggest that the ditches eventually came to be used as receptacles for secondary waste disposal, presumably from nearby off-site settlement areas. The pottery progressions of each of the ditch fill sequences, starting from the earliest fill upwards, largely consisted of Late Iron Age grog-tempered wares followed by mid 1st-century AD black-surfaced wares and storage jar fabrics, giving the ditches a suggested lifespan of *c.* 100 years.

The small oval enclosure bounded by ditches G39 and G40 in the middle of the enclosure complex was the only one of the Phase 2.1 enclosures to be fully enclosed (Fig. 6). Ditches G22, G27, G28 and G29 and the east to west stretch of G35 were possibly part of another fully surrounded enclosure, although there was no identifiable evidence for its western side.

Entranceways were indicated by breaks between G27 and G35, G39 and G40, and G36 and G46. The evidence for modification to the enclosure layout was slight and consisted partly of the replacement of G36 by ditch G37, which lay slightly to its east and converged with G36 as it ran northwards. It also included ditch G28 cutting and slightly amending the course of ditch G29 (Figs 6 and 7, sections 3 and 4). However, the wider developmental sequence behind the formation of the enclosures was not possible to ascertain because of a dearth of clearly defined stratigraphic relationships.

#### Cremation burials

Four cremation burials (G51), [425, 431, 445 and 597], were dispersed across the northern end of Area 3 (Fig. 6). The best preserved of these [445] contained two ceramic accessory vessels [448 and 449] and a jar [447] containing cremated bone and an unburnt bracelet and tweezers (Fig. 8). The other cremation burials [425, 431 and 597] were un-urned and contained no grave goods. The attribution of [425] and [431] to the Late Iron Age/Early Roman period is tentative and based on an assumed association with burial [445] to their north-west and with the many Late Iron Age to Early Roman remains to their south. Cremation burial [597] was cut by Phase 2.2 ditch G43 and is therefore slightly more securely dated. Included within the single fills of each of the pits were flecks and pieces of charcoal, probably representing the incorporation of pyre debris. The amount of cremated bone in each was less than expected for a human adult, although this could have been entirely or partly due to feature truncation as much as to deliberate selection and interment of only a sub-set of the burnt remains.

#### Other Phase 2.1 features

Discrete or small features probably in use during period 2.1 comprised six pits and a short length of gully. Pits [233, 236 and 237] incorporated mostly small fragments of Late Iron Age pottery in their fills and formed a loose cluster (G8) towards the east end of Area 1 (Fig. 5). Gully [70] was located near the west end of Area 1 and was cut by an undated ditch (G5) (Fig. 3). Pit [408] lay within the confines of the small straight-sided enclosure (G33), along with the two other small undated pits (Fig. 6). The contents of pit [408] included the base of a pedestal bowl or jar. Pits [480] and [501] were located between ditches G36 and G37 (Fig. 6). Pit [501] contained a small amount of Late Iron Age pottery and was truncated by both ditches. The fill of pit [480] produced a sizeable amount of pottery, 274 sherds, probably from just two vessels.

The presence of these discrete features probably implies infrequent, casual use of the areas of the enclosures for burying unwanted refuse from one or more nearby sites of domestic occupation, the focal points of which have not been identified or discovered. None of the discrete features or their contents provided clear evidence for religiously motivated ritual deposition, and their numbers were too small to clearly demonstrate if some parts of the site had been more favoured than others for disposing waste in pits.

#### Phase 2.2: Mid 1st century AD

##### Enclosure ditches

There was no direct evidence to indicate if any of the Phase 2.1 ditches were still extant when the Phase 2.2 ditches were

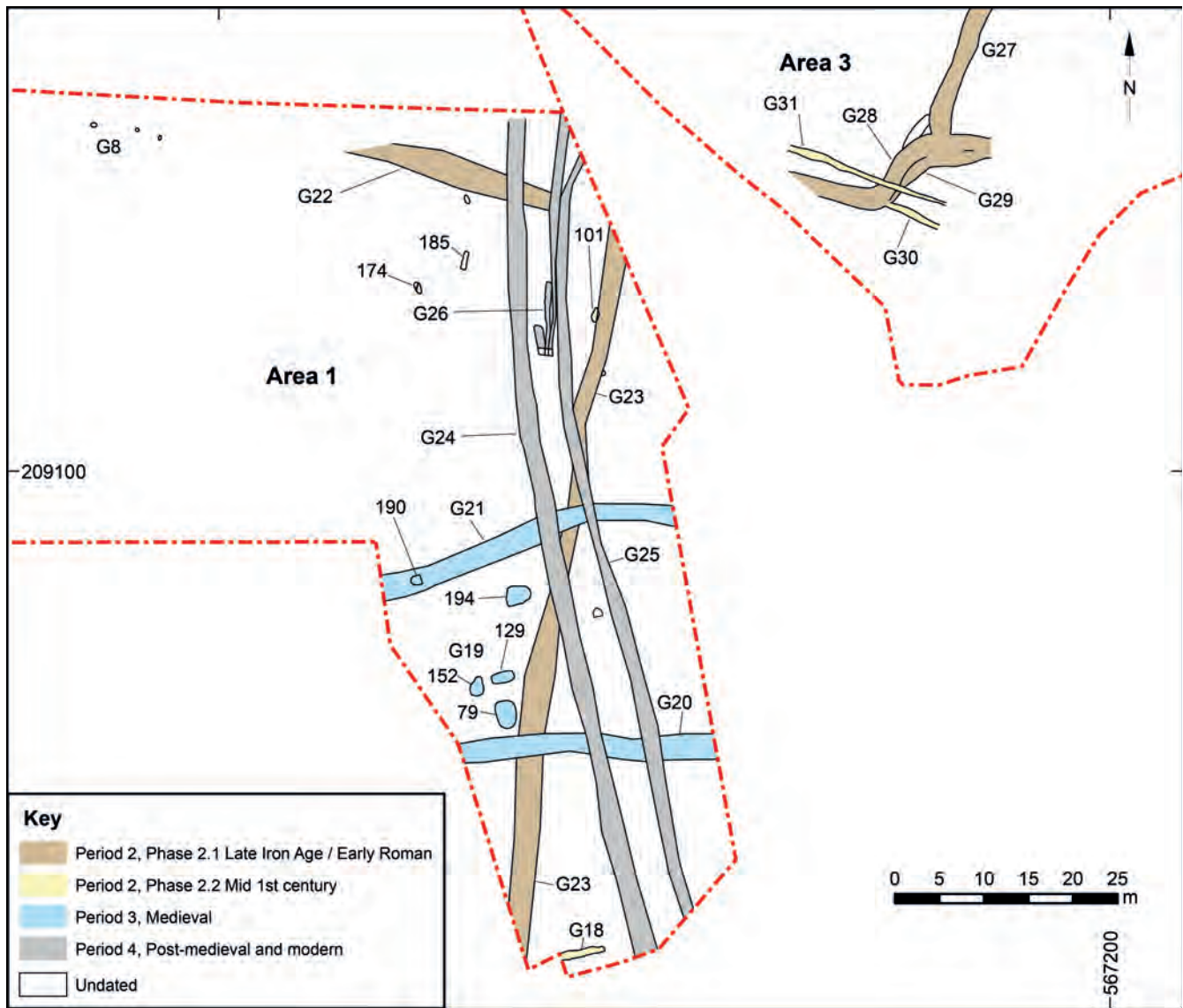


FIGURE 5: East end of Area 1 and south end of Area 3

laid out, although some of them may have been surviving as shallow earthworks since they appear to have influenced the positioning of the succeeding Phase 2.2 ditches (G30, G31, G32, G43 and G44) (Fig. 6). Ditch-side hedgerows may have further preserved the courses of the Phase 2.1 ditches, although there was no direct evidence to validate this. Ditch G32 passed through the former entranceway defined by the terminals of ditches G27 and G35 and ran close to, and parallel with, the southern section of G33. The Phase 2.2 enclosure formed by ditches G32, G43 and G44 can be surmised to have incorporated the north to south stretch of Phase 2.1 ditch G35 as an east side, while ditch G44 perhaps reiterated the course of Phase 2.2 ditches G36 and G37. Phase 2.2 ditches G30 and G31 possibly perpetuated the course of the east to west arm of G28 in a similar fashion.

Unlike those of the previous phase, the enclosure ditches of Phase 2.2 (G30, G31, G32, G42, G43 and G44) were more regular or formal, in that they ran more perpendicular and were slighter, straighter and shallower (Fig. 6). They contained only one or two fills per excavated segment and were typically no more than 0.35m deep. One enclosure was possibly formed by ditches G32, G43 and G44, while another to its south was

perhaps bounded by ditches G30 to G32. The lifespan of the Phase 2.2 ditches was probably short since they cut Phase 2.1 ditches and contained no datable artefacts later than the mid 1st century AD.

**Other Phase 2.2 features**

Two pits, one large (557) and one small (101), and a short length of gully (G18) contained low to moderate amounts of Early Roman pottery and were probably in use during the second half of the 1st century AD, probably for the same reason as suggested for the discrete features of Phase 2.1. Pit [101] and gully G18 lay at the eastern end of Area 1 (Fig. 5), and pit [557] north of Phase 2.2 ditch G35 in Area 3 (Fig. 6). Pit [101] cut Phase 2.1 ditch G23.

**Period 3: Medieval**

All but one of the medieval features were discovered within the south-eastern part of Area 1 and either composed ditches (G20 and G21) or pits [79, 129, 152, 190 and 194] (Fig. 5). The pits formed a small cluster (G19) and were of variable size and form, the largest [79] measuring 2.2m wide and



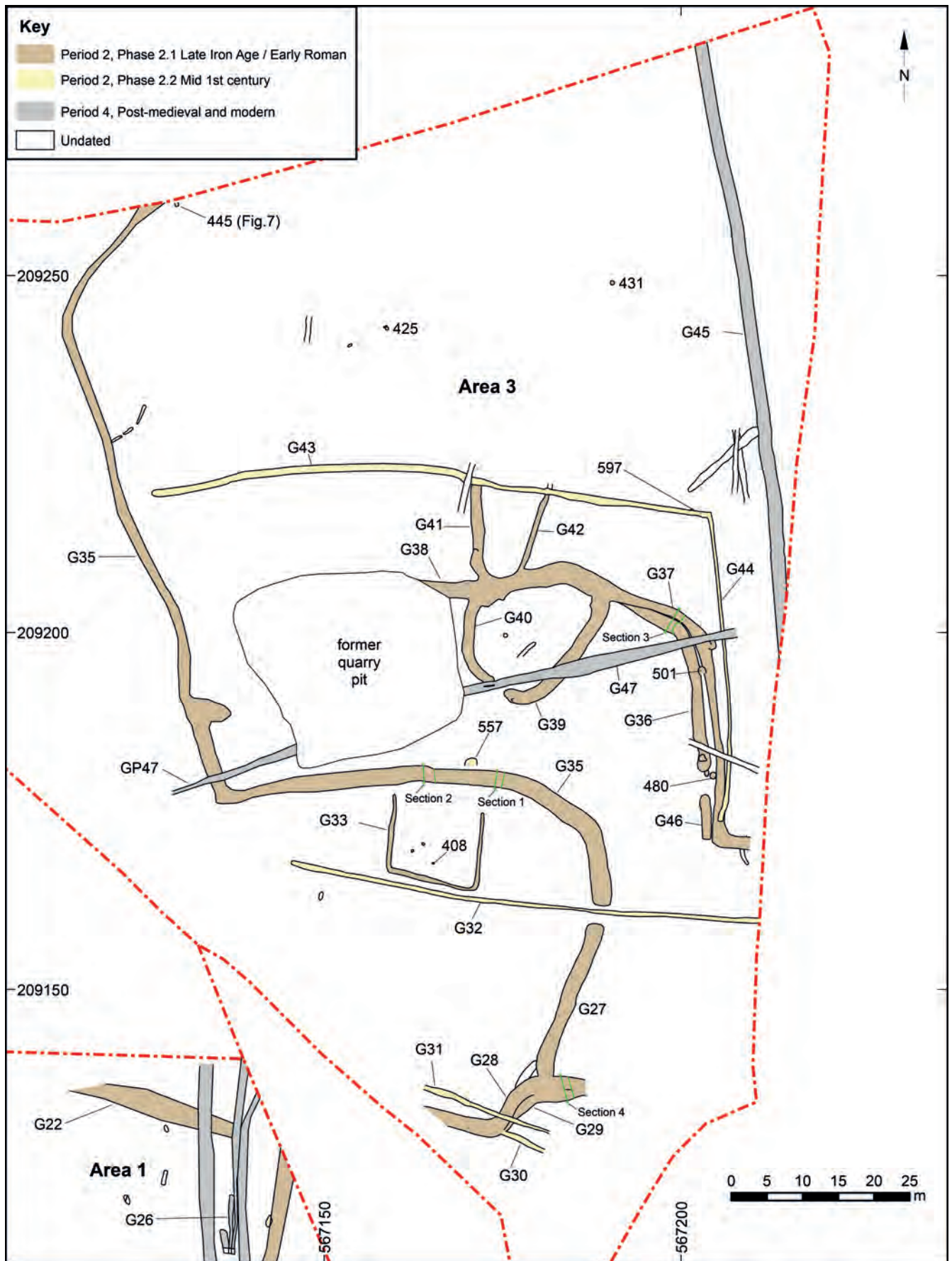


FIGURE 6: East end of Area 3

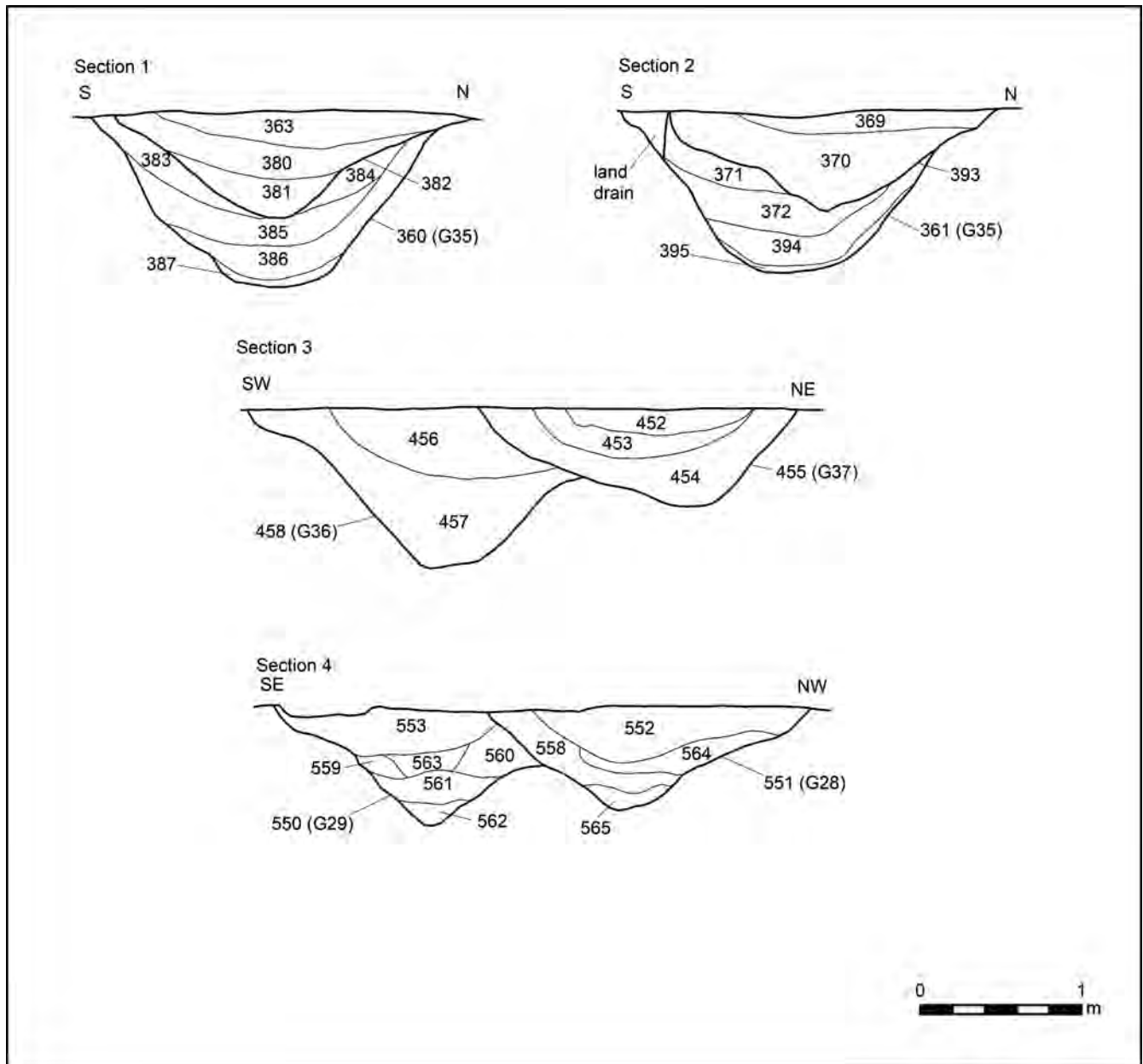


FIGURE 7: Sections 1 to 4

1.2m deep. None provided clear evidence as to their function. Some of the pottery from pit [194] lay within an overlying cut for a modern agricultural drain-pipe [201]. Ditches G20 and G21 ran roughly parallel, sitting stratigraphically between Late Iron Age/Early Roman ditch G23 and post-medieval/modern trackway ditches G24 and G25. In addition, ditch G21 cut medieval pit [190]. Segment [125] across ditch G21 had two fills and a distinctive V-shaped profile measuring 0.68m deep; it was the only one of the segments dug across the two ditches to be fully recorded. The dating evidence provided by the medieval potsherds made it likely that all of the medieval features had been in use during the 13th century.

Other medieval remains included pit [56] and small number of residual sherds, all within the west end of Area 1. The pit contained nine sherds of pottery and was probably in use at the same time as those of the east end of Area 1. Segments [50] and [67] of nearby post-medieval/modern field

ditches G3 and G4 incorporated small numbers of medieval pot sherds.

#### Period 4: Post-medieval and modern

Datable post-medieval and modern remains mainly consisted of field and trackway ditches G3, G4, G24 and G25 in Areas 1 and 2 (Figs 3 and 5), and field ditches G45 and G47 in Area 3 (Fig. 6). All of these must have been no longer extant by the late 19th century since none of them appear on the 1880 or later editions of the Ordnance Survey.

Ditches G3 and G4 in Areas 1 and 2 contained intact and *in situ* ceramic land drainage pipes at their bases but no other artefacts. Ditches G45 and G47 in Area 3 ran perpendicular and parallel with each other and an existing ditch and hedgerow, 120m to the west. Ditch G47 cut Late Iron Age/Early Roman ditches, including ditch G44 from Phase 2.2. Finds from G45 and G47 were possibly residual and comprised small amounts of abraded Late Iron Age/Early Roman pottery. Ditch G45 is

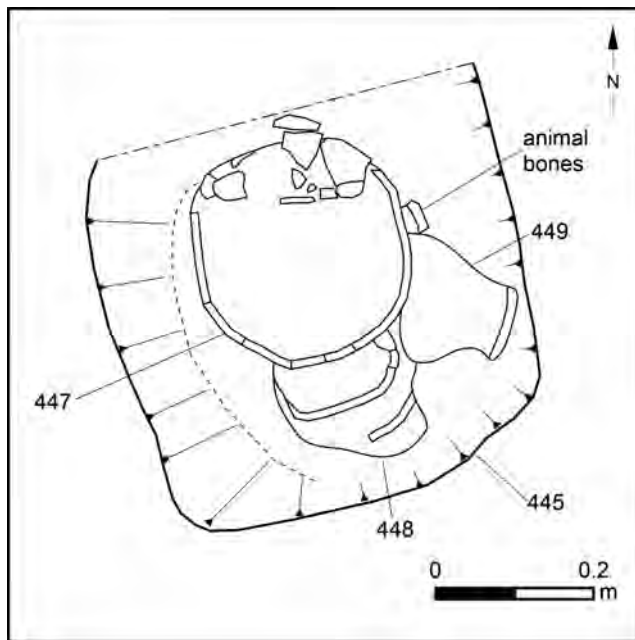


FIGURE 8: Cremation burial pit 445

possibly part of Phase 2.2, but is more likely to have been in use during the post-medieval or modern period since it has a different size and profile to that of G30, G31, G32, G43 and G44.

Trackway ditches G24 and G25 cut the medieval ditches of Period 3 and delimited numerous wheel ruts (G26). It measured 4m wide and was probably used as a haul road for transporting gravel, since it headed towards and away from the post-medieval/modern quarry pit, which was situated towards the east end of Area 3. The contents of G24, G25 and the wheel ruts included horseshoes, post-medieval/modern ceramic building materials, and residual medieval, Late Iron Age and Early Roman potsherds. Pockets of gravel were also present, perhaps implying that the trackway was metalled.

### Undated

The most notable of the site's many undatable remains were the poorly preserved skeletal remnants of a human inhumation [150], which lay extended and supine within a shallow, north to south aligned grave [185], located towards the north-eastern corner of Area 1 (Fig. 5). The skeleton was

probably that of a young adult, although its gender was unable to be established because of its poor preservation.

The contents of undated, shallow pit [174], c.6m to the south-west of this grave, were probably associated with the inhumation, since they composed a cluster of poorly preserved, non-cremated bones from a young human adult, the gender of which was no longer evident. Long bones comprised most of the surviving remains, although it is not known if they were still articulated.

### FINDS AND ENVIRONMENTAL REPORTS

Most of the artefacts found by the archaeological work were recovered from ditches and a small number of pits within Area 3 and the east end of Area 1, and mainly composed Late Iron Age, Early Roman and medieval potsherds, together with fragments of baked clay and later prehistoric loomweights. Items of metalwork were also discovered, including a fairly unusual example of a Late Iron Age tubular bracelet. Small amounts of animal and human bone attest to keeping of livestock and use of the eastern parts of Areas 1 and 3 for human interment.

### Struck flint, by Karine Le Hégarat

A total of sixty pieces of struck flint, as well as a flint hammerstone, were recovered from Areas 1 to 3. The assemblage largely comprises unmodified pieces of flint debitage, and contains no chronologically distinctive types. Based on technological traits, the majority of the flintwork is likely to be of late prehistoric date (Middle to Late Bronze Age/ Early Iron Age). A few pieces are possibly earlier such as the core face rejuvenation flake and some of the unmodified pieces of flint debitage. The artefacts were individually examined and classified using a standard set of codes and morphological descriptions (Butler 2005; Ford 1987; Inizan *et al.* 1999) (Table 1).

Overall, the material was thinly spread with no features producing more than seven artefacts. Struck flints were retrieved from a number of features, including post-hole [286] of Middle Iron Age four-post structure G9, and Late Bronze Age pit [231], both of which contained small numbers of flints which could have been contemporary with them. The remaining material (88.52% of the total assemblage, n=54) comes from undated and Late Iron Age/Early Roman or later features and is therefore either undated or residual.

Category type	Period 1	Period 2	Periods 3 and 4 & undated	Total
Flakes*	6	30	14	50
Blade-like flakes	-	1	2	3
Irregular waste	-	2	-	2
Cores, Core fragments	1	1	-	2
Retouched forms	-	-	3	3
Hammerstone	-	1	-	1
<b>Total</b>	<b>7</b>	<b>35</b>	<b>19</b>	<b>61</b>
%	11.48%	57.38%	31.14%	100%

TABLE 1: Summary of the struck flint by period (\* includes core preparation flakes)

The assemblage is dominated by knapping debitage including forty-eight flakes, three blade-like-flakes and two pieces of irregular waste. A relatively large proportion of the pieces are technologically poor. The flakes are largely small, with squat flakes with plain platforms predominating. Platforms are occasionally cortical and most butts exhibit minimal or no preparation. It seems that cores were also made expediently. No effort was made to prepare a platform edge for the multiplatform flake core recovered from Late Bronze Age pit [231].

Only three retouched pieces were recovered; a concave scraper made on a natural flake, a crudely worked piercer and a minimally retouched flake. None are particularly diagnostic. Overall, the assemblage displays characteristics consistent with a flake-orientated industry dating to the Middle to Late Bronze Age/Early Iron Age period. Nonetheless, the core face rejuvenation flake from excavated segment [270] in undated ditch G2, in Area 1, as well as some of the other flakes, would not be out of place in a Mesolithic/Neolithic context.

**Prehistoric pottery**, by Anna Doherty

The prehistoric pottery assemblage is fairly undiagnostic in character meaning that most of the features are unable to be closely dated. Only one large diagnostic Deverel-Rimbury stratified group can be identified, from Late Bronze Age pit [231]. More generally, the range of fabrics is typical of the Late Bronze Age to Early Iron Age. Flint or flint and sand tempered fabrics (such as Brown 1988, fabrics A–F) tend to dominate Late Bronze Age and Early Iron Age assemblages (e.g. Brown 1988). The more diverse tempered fabrics (such as F–Z), which were found in very small quantities across a range of features, are more appropriate to Early or Middle Iron Age pottery.

The large group of Deverel-Rimbury pottery (259 sherds; 1.25kg) from pit [231] was recovered from fill [232]. This group is largely composed of Brown’s (1988) flint-tempered fabrics C and D with only two grog-tempered sherds. The most diagnostic element is a globular urn bearing the scar of an applied lug handle (Fig. 9.1), typical of this date, though unusual in Essex, where most Deverel-Rimbury pottery comes from cremation burials and comprises bucket urns. Globular urns are usually associated with domestic sites.

*Catalogue of illustrated prehistoric vessels*

1. Globular urn with lug handle (Brown 1988, fabric E), fill [232], pit [231].

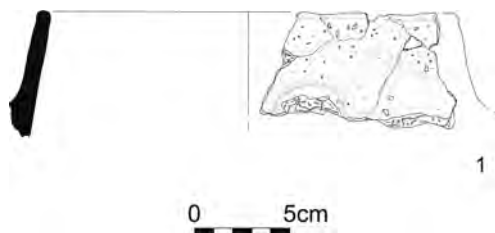


FIGURE 9: Prehistoric pottery

**Late Iron Age and Roman pottery**, by Scott Martin (with Anna Doherty)

A total of 3,291 sherds (27.91 kg) of Late Iron Age and Roman pottery was recorded. The pottery was classified using the Chelmsford typology published by Going (1987, 2–54), as is standard for Essex sites, and the still useful *Camulodunum* typology (Hawkes and Hull 1947; Hull 1958 and 1963) for forms that are not present in Going. Most contexts only produced small amounts of pottery, usually less than 1kg, suggesting a general absence of primary rubbish deposits on the site. A total of fifteen fabrics were identified and these are recorded in Table 2.

Code	Fabric	Fabric number (after Going 1987)
AMPH	Misc. amphora fabrics (including Dressel 1; Dressel 20)	
BSW	Misc. black-surfaced wares (Romanising fabrics)	34/35
BUF	Unspecified buff wares	31
COLB	Colchester Buff Ware	27
ESH	Early shell-tempered ware	50
GRF	Fine grey wares	39
GROG	Grog tempered wares	53
GROGC	Grog tempered wares (coarse)	
GRS	Sandy grey wares	47
MICW	Misc. Iron Age coarse wares	
NGWF	North Gaulish White Fine Ware	
NGWFS	North Gaulish White Fine Sandy Ware	
RED	Unspecified red wares	21
STOR	Storage jar fabrics	44
TR 1 (A)	Terra Rubra	

TABLE 2: Late Iron Age and Roman pottery. Range of fabrics present

*Catalogue of illustrated Late Iron Age and Early Roman vessels*

2. G5.1 jar with incipient groove, ESH (top fill 363 of recut 382, segment 360, ditch G35).
3. *Cam.* 212A, GROG (single fill 572, segment 573, ditch G41).
4. G3 jar, GROG (tertiary fill 468, segment 471, ditch G37).
5. G20 jar, GROG (tertiary fill 468, segment 471, ditch G37).
6. Strainer (M2) with holes made *post cocturam*. GROG (tertiary fill 468, segment 471, ditch G37).
7. Strainer (M2) with holes made *post cocturam*. ESH (tertiary fill 468, segment 471, ditch G37).
8. G3.2 jar, GROG (secondary fill 469, segment 471, ditch G37).
9. G20 jar, GROG (secondary fill 469, segment 471, ditch G37).
10. G15/*Cam.* 229 jar, GROG (primary fill 606, segment 607, ditch G38).
11. Base with holes made *post cocturam*. GROG (primary fill 606, segment 607, ditch G38).
12. Strainer (M2) with holes made *post cocturam*. GROG (single fill 617, segment 577, ditch G43).
13. Pedestal beaker *Cam.* 76A, TR1 (A) (fill 594, segment 577, ditch G43).
14. Jar CAM249/G3.2 GROG (Latest fill 121, segment 108, ditch G23).

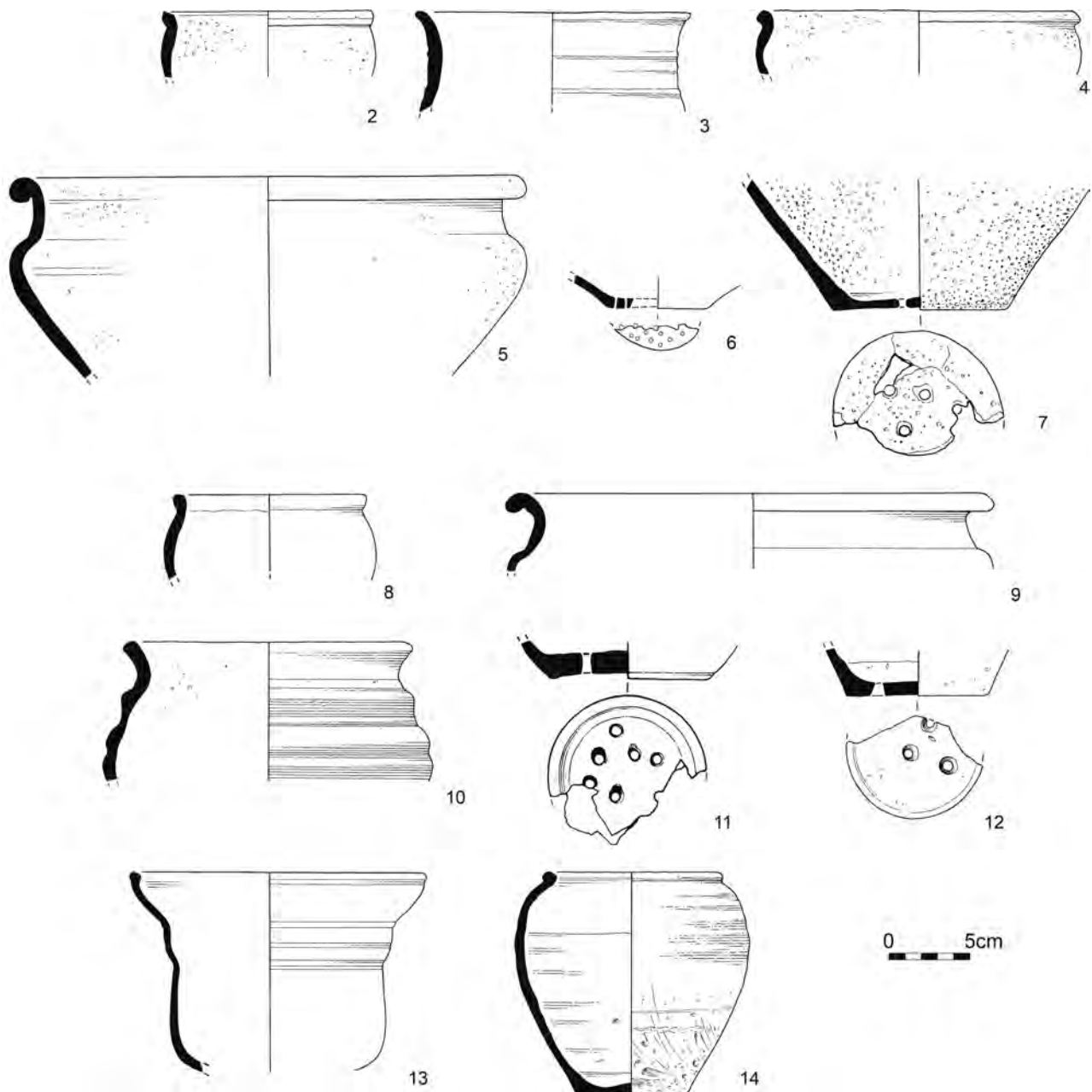


FIGURE 10: Late Iron Age/Roman pottery

The pottery assemblage is notable for the dominance of locally made 'Belgic' grog-tempered wares. These fabrics account for around 80% of the total weight of pottery recovered from the site. Other ware types including South Essex shelly wares, Gallo-Belgic imports, pre-conquest Dressel 1 amphorae, transitional 'Romanising' black-surfaced wares, fully Romanised sandy fabrics, and Dressel 20 amphorae, each accounting for between 1–5% of the assemblage by weight. This picture suggests that the most concentrated period of activity probably pre-dated the Roman conquest. There is no clear evidence to suggest that any of the Roman material extends into the Flavian period (69 to 96 AD). Most of the assemblage derives from ditches with an extended sequence of infilling, stretching from the Late Iron Age into the Early Roman period. The pottery can be broadly grouped into three chronological phases which appear to have

a fairly sound stratigraphic basis. These groupings are defined as follows: Late Iron Age, mid 1st century AD and Early Roman.

The Late Iron Age group is mainly associated with the primary and secondary fills of ditches although some smaller groups were recovered from pits. In these groups, grog-tempered sherds predominate to the virtual exclusion of anything else although groups of this type may contain a few sherds of shelly fabrics, imported amphorae or Gallo-Belgic wares.

By far the bulk of the identifiable Late Iron Age vessel forms are jars and many of these find close parallels in the *Camulodunum* series. This seems to be the case throughout the life of the site. The dominance of jars is also a feature of other Late Iron Age rural sites in the county. Groups from Hatfield Peverel (Martin 1996, 4), North Shoebury (Thompson 1995, fig. 71), Slough House and Chigborough Farm (Horsely and Wallace 1998, fig. 102 and fig. 104, nos 1–6 respectively),

for example, show this trend clearly. At Roxwell, a wide range of grog-tempered vessels both necked and neckless types are represented within this class. The earliest jar forms appear to be handmade and tend to have very rounded profiles. A small number of bases from pedestal jars are present, one of which was recovered from cremation burial [445] (see below). Also recorded was a jar corresponding to Hawkes and Hull 1947, fig 56 12–3. Necked jars predominate, however. The range covers *Cam.* 256A, *Cam.* 229D (Fig. 10.10), *Cam.* 221, *Cam.* 220A, *Cam.* 225, *Cam.* 218Aa and *Cam.* 231. One vessel resembles *Cam.* 263/264 but has rilling.

The most common early shell-tempered ware jar form is the club-rimmed *Cam.* 254. Lid-seated jars are rare on the other hand. There is some evidence to indicate that *Cam.* 254 is a pre-conquest form, while the lid-seated jar was a post-conquest introduction. At Orsett, analysis of the relationship between these types suggested that they tended to be mutually exclusive (Cheer 1998, 93). The evidence from Roxwell lends some support to this. If this dating is correct, it suggests that the bulk of the early shell-tempered pottery had arrived in the Late Iron Age rather than in the Roman period.

Another chronologically significant aspect of the assemblage is the presence of three fragments of Dressel 1 amphora, including diagnostic basal spike and shoulder sherds. The production range for this class of amphorae falls firmly between c.130–10 BC. However, this type does occur on sites where other ceramic, coin and brooch evidence for activity in the late Republican period is lacking. At Sheepen, this pattern was explained by old vessels being brought to the site for a secondary purpose (Sealey 1985, 99). Certainly, the three sherds from Roxwell appear to be associated with material of slightly later date: one example was stratified with a Terra Rubra *Cam.* 76 pedestal beaker, dated c.15 BC–AD 25 (Fig. 10.13), in a fill of G43 ditch segment 577 and another with a sherd of North Gaulish white ware, dated c.AD 10–80, in a secondary fill of G37 ditch segment 455. More generally the range of coarse pottery forms described above is in keeping with activity beginning in the late 1st century BC to early 1st century AD so it seems possible that the amphorae represented curated or reused material by the time of the Late Iron Age settlement's foundation.

Another group of contexts is characterised by the appearance of black-surfaced wares and storage jar fabrics, although they remain dominated by grog-tempered pottery. These are generally stratigraphically above the Late Iron Age group and are strongly associated with the intermediate and top fills of ditches. The range of vessel forms in transitional black-surfaced wares and fully Romanised fabrics is very limited and where identifiable can be paralleled in the Chelmsford typology fairly closely. Identifiable forms in this period include G20 and G15 necked jars (Figs 10.5, 10.9, 10.10), G5 lid-seated jars (Fig. 10.2), G3 simple out turned rim jars (Figs 10.4, 10.8, 10.14), and G44 storage vessels, sometimes with rilled bodies. A single example of a *Cam.* 212A bowl was also noted (Fig. 10.3) as well as examples of grog-tempered H7 butt-beakers. The paucity of identifiable forms is partly due to the fragmentary nature of the pottery in general, but it also implies that there was a real decline in the level of activity at Roxwell in this period.

The final grouping is clearly Early Roman in date; although these assemblages are, overall, quite similar in

composition to those from the mid 1st century AD, they are characterised by the presence of small quantities of fully Romanised grey wares and very small amounts of buff wares from Colchester. This material is largely confined to the top fills of ditches, or comes from single-fill ditches. Again there is a notable dearth of diagnostic material from these groups.

Cremation burial pit [445] contained three wheel-thrown grog-tempered jars, although all of these were unfortunately very heavily truncated making it difficult to discern their precise form. Two, including that which contained the cremated bone, were flat based forms with shouldered profiles and well-defined necks; a third was a pedestal vessel, probably similar to *Cam.* 202/203. A truncated pedestal vessel was also found in association with pit [408]. At *Camulodunum* (Hawkes and Hull 1947), pedestal vessels of this type were generally regarded as pre-conquest in date and both cremations can probably be placed broadly within a late 1st-century BC to mid 1st-century AD range. Having said this, the two accompanying flat-based jars in [445], although only loosely classifiable, seem to have more in common with broadly 1st-century AD forms such as *Cam.* 218–220.

Aside from the vessels associated with the cremation burial, the pattern of pottery distribution on the site appears consistent with repeated deliberate episodes of secondary rubbish disposal in ditches. Many of these features produced medium or large groups of pottery, but this tended to be broken material. Perhaps the single exception to these comes ironically from the latest fill [121] of post-medieval/modern ditch G25 (segment [108]), within which lay a nearly intact G3.2 jar in a coarse grog-tempered fabric (Fig. 10.14). Interestingly, this jar featured a prominent hole in the vessel wall which, although possibly the result of normal breakage, had the characteristics of a flat spall detached during an unsuccessful kiln firing. This vessel occurred with two other partially complete vessels, including the lower half of a jar with a single large post-firing perforation. Such modifications may suggest vessels reused as strainers, but there is also some evidence to suggest that deliberately holed vessels are preferentially selected in special deposits (Fulford and Timby 2001). Additionally, several strainer vessels of a slightly different type, with numerous *post cocturam* holes were concentrated in ditch G37 (Figs 10.6, 10.7, 10.11, 10.12); however there was no clear evidence that these were deliberately placed.

The presence of early imported wares is of some note as these are often seen as evidence of connections to continental supply routes and adoption of Gallo-Roman culinary and wine-drinking culture. The occurrence of a number of brooches and the rich grave furniture associated with burial [445] also adds to a picture of some degree of high-status activity. However, the imported pottery from Roxwell belongs to a fairly narrow range including a few sherds of Dressel 1 wine amphora and Gallo-Belgic imported fine wares, restricted to North Gaulish white ware *Cam.* 113 butt beakers and a *Cam.* 76A pedestal beaker in Terra Rubra. Although even a small assemblage is slightly unexpected in a rural location, away from the coast or networks serving oppida or other high-status settlements, this amount of material might be the result of a very limited number of trade or exchange events. Recent work has produced isolated examples of Gallo-Belgic wares from central and north Essex rural sites; for example, Strood Hall and east of Little Dunmow Road (Biddulph *et al.* 2007, 258; 265). The

absence of Terra Nigra is also probably significant and may indicate that any high-status activity occurred fairly early on in the site's history. This point is also emphasised by the lack of non-jar forms in the mid 1st-century/Early Roman groups. Platters, for example, appear to be exceptionally rare with all examples of this vessel class appearing in grog-tempered ware. Grog-tempered ware bowls and cups were also rare and only few examples of locally-produced butt-beakers were recorded.

**Medieval pottery** by Helen Walker

A total of 873 sherds weighing 5.2kg was excavated from seventeen contexts and has been catalogued according to Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1–16). In addition, the cooking-pot rims have been dated using Drury's typology at Rivenhall (Drury 1993, 81–4). The pottery is quantified in Table 3, the table also indicating the presence of Roman pottery as a check for residuality, as it follows that if pottery from earlier periods has found its way into a context, then the medieval pottery may also be residual (Vince 1991, 265). All wares present are described in the published literature and are not detailed again in this report (Pearce *et al.* 1982; Drury 1993; Cotter 2000; Walker 2012).

Medieval pit [56] and ditch segments [50] and [67] across post-medieval/modern field ditches G3 and G4 within the western end of Area 1 all produced only small quantities of pottery comprising sherds of early medieval ware, medieval coarseware and Hedingham coarseware, with one sherd of shell-and-sand-tempered ware in segment [50]. The only form present is an early medieval ware cooking-pot rim in the primary fill of pit [50] (fill 49). The rim is of Drury's type H2, typically found on medieval coarseware cooking-pots of the early to mid 13th century, but given that this cooking-pot is in early medieval ware, an early 13th-century date seems most

likely. The fact that the average sherd weight of pottery from these features is only 4.5g, and the presence of Roman sherds in segments 50 and 67 indicate a high likelihood of residuality.

Three very small abraded sherds of shell-tempered ware weighing a total of only 5g were excavated from context [214], a primary fill of G23 ditch segment [215], which was stratified below all the other medieval features in this part of the site. These sherds could date anywhere between the 10th and 13th centuries.

Pits [79, 129 and 152], situated at the eastern side of Area 1, produced the largest quantity of pottery, totalling 4.6kg. However, the average sherd weight is small, only 6g, some of the sherds are abraded, and Roman sherds occurred in some of the fills, again indicating the pottery may be residual. Horizontal sherd linkages were noted between pits [129] and [152], and between pits [129] and [79]. There are also vertical sherd linkages between the upper and lower fills of pit [129] and between both fills of pit [79]. It would appear that all the pit fills are contemporary and are therefore discussed as a single group.

Fine wares comprise fragments from Mill Green ware jugs, with a smaller number of fragments from sandy orange ware jugs. There are seven Mill Green ware inturned or carinated jug rims and one plain necked, slightly beaded jug rim, with reeding around the neck (*cf.* Meddens and Redknap 1992, fig. 13.22). Many sherds are decorated and the two principal styles found on Mill Green ware, slip-coating under a mottled-green glaze sometimes accompanied by combing, and slip-painting under a plain lead glaze, are well represented. One quite large fragment from the body of a jug shows curving combed lines as well as the more typical vertical straight-lines. Another body sherd shows slip-painted dots and curving lines (*cf.* Meddens and Redknap 1992, fig. 24.146). Of some interest is a sherd

	Segment 50 (48,49) G3	Pit 56 (55)	Segment 67 (66) G4	Segment 215, (214) G23	Pit 79 (80,148)	Pit 129 (126; 128)	Pit 152 (151)	Segment 110 (112) G25	Segment 161 (158) G24	Pit 190 (189)	Pit 188 (187)	Pit 194 (193)	Drain pipe 201 (200)	Segment 198 (195) G20	Total Sherds
Shell-tempered ware	-	-	-	3	7	-	-	1	-	-	-	-	-	-	11
Shell-and-sand-tempered ware	1	-	-	-	1	1	2	-	-	-	-	-	-	-	5
Sand-with-shell-tempered ware	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3
Early medieval ware	2	1	-	-	15	-	1	-	-	-	-	-	-	-	19
Medieval coarseware	3	1	1	-	94	160	70	-	-	2	3	10	10	7	361
Hedingham coarseware	3	1	-	-	1	14	11	-	-	-	1	-	1	-	32
Mill Green coarseware	-	-	-	-	63	81	109	-	-	3	3	5	4	13	281
Mill Green fineware	-	-	-	-	22	69	18	-	-	-	-	4	1	-	114
Sandy orange ware	-	-	-	-	9	19	12	-	1	1	-	5	-	-	47
<b>Total wt (g)</b>	<b>39</b>	<b>9</b>	<b>10</b>	<b>5</b>	<b>1605</b>	<b>1743</b>	<b>1271</b>	<b>1</b>	<b>14</b>	<b>13</b>	<b>43</b>	<b>160</b>	<b>112</b>	<b>132</b>	
	R		R		R		R	R							

TABLE 3. Quantification of pottery by ware, feature (fill in brackets) and sherd count; the total weight of pottery per feature is also shown; R denotes the presence of Roman pottery

from the upper part of a Mill Green ware jug showing reduced surfaces, a row of applied white slip dots and a very dark green glaze, appearing almost black over the reduced surface. This is a more unusual method of decoration. Jug bases in this ware are thumbled, apart from one example of a sagging base.

There is one example of a sandy orange ware jug with an inturned rim, and like the Mill Green ware, there are examples of slip-painted decoration and slip-coated, green-glazed and sometimes combed decoration. It is possible that these are actually sandy versions of Mill Green ware, but could equally well be copies made by other industries. There are examples of thumbled jug bases in sandy orange ware and one example of a recessed base. Of some interest is a sherd with a vertical strip in brown clay applied over a cream slip-coating, a green glaze gives a mottled-green background, but the darker strip appears brown under the glaze. Further sherds possibly from the same vessel occur in pit [194].

As is typical of medieval sites, coarsewares far outnumber finewares. In this group, medieval coarseware and Mill Green coarseware are common, with much smaller quantities of Hedingham coarseware. A few unfeatured sherds of shell-tempered ware, shell-with-sand-tempered wares and early medieval ware are also present, with a relatively large number of early medieval ware sherds in the top fill of pit [79] (fill 80), showing a shiny black carbonised residue on the internal surface.

Coarseware vessels comprise mainly fragments from jar forms, with the exception of a medieval coarseware handle of flattened oval section, probably from a jug. There are also a few very fragmented Mill Green coarseware rims, which could be from either jars or bowls. The most interesting vessel is a partially complete Mill Green coarseware cauldron with an everted rim and two angular loop handles, possibly an imitation of a metal vessel. Cauldrons are unusual, although can only be recognised as such if largely complete. Examples of Mill Green ware cauldrons occur at the production site (Meddens and Redknap 1992, fig. 20.100) and have been found in London (Pearce *et al.* 1982, fig. 18.60). Similar cauldrons were also made in London-type ware and occur in London waterfront groups dated *c.*1270 to *c.*1340 (Pearce *et al.* 1985, 43). The vessel shows signs of being heated (see catalogue entry) and would have most likely been used for cooking. In addition to No.1, there are two further everted rims (in medieval coarseware and Mill Green coarseware) that may also be from cauldrons.

Cooking-pots are the most frequent jar form and occur in the following rim types:

- Rim form H2: four fragments, in Mill Green coarseware and medieval coarseware
- Rim form H1: twelve fragments, in Mill Green and Hedingham coarsewares and medieval coarseware
- Cavetto or curved over rims: one fragment in medieval coarseware

Curved over cooking-pot rims and the H2-type rim are typical of the first half of the 13th century according to Drury's typology, while rim form H1, the commonest type, was current throughout the 13th century. None of the coarsewares are decorated, however, a number of Mill Green coarseware sherds show splashes of internal glaze especially on the bases, a Mill Green ware characteristic (Pearce *et al.* 1982, 289).

Medieval ditches G20 and G21, and post-medieval/modern trackway ditches G24 and G25 were also situated at the eastern side of the site and were all fairly near to the large pit groups discussed above. Average sherd weight is again low, at 6.5g. G25 ditch segment [110] produced Roman pottery apart from a crumb of shell-tempered ware in primary fill [112].

All the other features produced a similar range of wares, in a similar condition and in similar proportions to the pits discussed above, albeit in much smaller quantities and with the absence of shelly wares and early medieval ware (see Table 3). In addition, a similar range of forms and decorated sherds are present. The only material that is different is a sherd of glazed sandy orange ware from the top fill of segment [161] of post-medieval/modern trackway ditch G24 (fill 158), the only pottery from this feature, showing lightly indented vertical grooves giving a fluted appearance, an unusual type of decoration. In addition, three small sherds from a Mill Green ware flat vessel were found in pit [194] (fill 193) showing an internal slip-coating covered by an apparent yellow glaze, which may be 14th century.

One horizontal sherd linkage was noted between pit [194] and large pit [129] (fills 126 and 193), indicating that this feature at least was open at the same time as the group of large pits. Pits [190] and segment [188] of ditch G21 were also intercutting, but again both features produced very similar pottery and their fills may have become mixed (in antiquity). In conclusion, the pottery from these features, with the exception of that from ditch [110], is almost certainly contemporary with that from large pits [79, 129 and 152].

### Discussion

The sherds of shell-tempered ware in G23 ditch segment 215, stratified at the bottom of the sequence within the east end of Area 1 may indicate an earlier phase of occupation, although unfortunately shell-tempered ware is a long-lived fabric spanning the 10th to 13th centuries and is not necessarily much earlier than the pottery from succeeding features.

The medieval pottery from the western side of Area 1, *i.e.* pit [56] and segments [50] and [67] of post-medieval/modern ditches G3 and G4, is different from that of the western side, in that the assemblages are smaller, and there is no Mill Green ware but a higher proportion of Hedingham coarseware. It is possible that the pottery from the eastern side is earlier, perhaps early 13th century, although with such small amounts of pottery, the evidence is inconclusive. The relative concentration of Hedingham coarseware could be an indicator of a date before the second half of the 13th century, since as at nearby Chelmsford, Hedingham fineware was almost entirely superseded by Mill Green fineware in the second half of the 13th century (Drury 1993, 89).

The latest pottery from the eastern side of Area 1 comprises the Mill Green ware cauldron datable to the late 13th to mid 14th century and the Mill Green ware slip-coated flatware fragment, which is likely to be 14th century. However, it has to be noted that no cooking-pot rim types characteristic of the 14th century are present (*i.e.* rim types H3 and E5).

The assemblage comprises mainly cooking-pots with smaller quantities of fineware jugs; this is typical of medieval sites and indicates the pottery is both from living and service areas. The preponderance of Mill Green ware is not unexpected as the production site lies only about 8.5km to the south. The



cauldron is the only specialised vessel-form and probably functioned as a portable cooking vessel. In the eastern part, the fact that there are horizontal sherd linkages between different features suggests that there has been movement of pottery across the site. This may be the result of repeated ploughing but could be due to dumping of pottery and subsequent levelling in antiquity after the site went out of use, as appears to have been the case at other rural sites in the county, for example Gutteridge Hall (Walker 2008, 32) and Stansted Airport (Walker 2004, 417, 427). The pottery from Area 1 is similar to that from a previous excavation within the area in 1989 (Walker 1992, 46–8) in that Mill Green fine- and coarsewares were present and there was evidence for more than one phase of occupation.

### Registered finds, by Elke Raeman

A total of forty-seven registered finds were recovered across contexts ranging in date from the Bronze Age through to the medieval period. The majority is of later Iron Age date, mostly comprising loomweights.

### Late Iron Age and Early Roman Artefacts

#### Cremation deposit [451]

Cremation deposit [451], found within primary vessel [447] in Late Iron Age burial [445], contained four metal finds. Included are tweezers (cat. no. 1), a bracelet (cat. no. 4), a disc (cat. no. 3) and a sheet fragment (cat. no. 2), together representing the non-organic grave goods of a relatively modestly-furnished grave. None of the objects show any signs of having been burnt, suggesting they were placed in the vessel as grave goods rather than as pyre goods/debris.

Tweezers are comparatively uncommon finds in cremations of the period (Philpott 1991, 182). Although they could also have had surgical purposes (Jackson 1986, 137–8), the Roxwell Quarry tweezers (cat. no 1, Fig. 11.1) are likely to have been used for the removal of unwanted facial and body hair. They fall within Jackson's second category. The slide ring would have enabled the blades to be clamped together during use or to be closed during storage (Crummy 1983, 59).

Of interest is a tubular bracelet within which a grain-shaped calcite pebble was found (cat. no. 4, Fig. 11.4). This type of bracelet was manufactured by wrapping copper-alloy sheet around a wooden core, which was then bent into shape. Traces of wood were noted within the bracelet during conservation. Unfortunately, too little survives to identify the wood. However, an arm-ring from a 7th- to 4th-century BC child's grave at Cannington in Somerset retained remains of a hazel branch (Rahtz *et al.* 2000, fig. 239, 355). Although the Cannington example is of much earlier date, the bracelet from Roxwell Quarry would have been made with the aid of a similarly pliable type of wood.

Most tubular bracelets have been recovered from graves, including examples from a warrior's burial at Stanway in Essex, dated to c.AD 40–50 (Crummy *et al.* 2007, fig. 84, 179; 437) and from a female burial at Birdlip in Gloucestershire (Bellows 1881, 137–41, fig. 9). Continental examples date to Hallstatt D through to la Tène III, and include bracelets from Ménil-Annelles and Ville-sur-Retourne in Champagne (Stead *et al.* 2006, 82) as well as examples from the Manching and Trier area (van Endert 1991, 5–9; Haffner 1971 and 1974). British examples need not necessarily be imports, and this type

of bracelet could have been manufactured on either side of the Channel (Michael Marshall pers. comm.).

Terminals of these bracelets are often damaged, rendering it difficult to establish the means to conjoin the bracelet. The example from Roxwell Quarry contains an inner tube, similar to a bracelet from Ville-sur-Retourne (Stead *et al.* 2006, fig. 132, no 20, 284). Other methods include a hollow cast terminal into which the ends are fitted, as was noted on a 1st-century AD example from Frocester in Gloucestershire (Price 2000, fig. 2.9, no. 233, 48).

During conservation, a small calcite pebble was recovered from within the bracelet. Although naturally shaped, the bead displays a man-made incision giving it the appearance of a grain. It is possible that the 'grain' became trapped in the bangle after deposition, but in that case it still appears to have been deposited together with the bracelet. No parallels were found for the small grain-shaped pebble. However, tubular bracelets are sometimes found in association with beads, some of which may also have had an amuletic function (Michael Marshall pers. comm.). The Stanway bracelet, for example, was found together with a glass bead carefully placed in the centre of the arm-ring (Crummy *et al.* 2007, 178). Other examples, such as a bracelet from Ville-sur-Retourne (Stead *et al.* 2006, fig. 132, no. 20, 284) had been threaded with glass beads. If the 'grain' was locked inside the bracelet, it might, despite the wooden branch, have made a rattling noise, similar to the sound beads threaded on the outside would have made. Without knowing exactly where the pebble had been deposited, it is hard, however, to infer its significance. If it was contained within the bracelet, and it was worn during the owner's lifetime, the pebble was probably amuletic, perhaps representing a fertility symbol. Another suggestion is, if the grain related to the funerary ritual (more likely if the pebble only became lodged within the bracelet upon the latter's degradation), that it may have symbolised food for the afterlife.

Copper-alloy disc RF <17> (cat. no. 3, Fig. 11.3) forms part of a growing number of circular Late Iron Age objects known from southern England. The majority comprises large iron discs, usually measuring over 70mm, rendering the Roxwell Quarry example, with a diameter of only 21mm, an outlier. Similarly small examples were recovered from a cremation at Hinnton, Cambridgeshire, which contained two iron discs measuring 32–45mm in diameter (Hill *et al.* 1999, fig. 10, nos 7–8, 254), and from a burial at the A2 near Gravesend, which contained a copper-alloy notched example (Scott 2012, fig. 3.87, no. 10, 292). Both graves are high-status. The example from the A2 is almost identical to the Roxwell Quarry disc and only slightly larger (diam. 28mm), although, if the Roxwell Quarry disc contained the finer cuts they have now been worn away. It is unclear what the function of these smaller discs was, although all four examples were found in assemblages with an emphasis on personal appearance. They may therefore relate to personal adornment or grooming (Scott 2012, 295), and were perhaps threaded onto chains (Fitzpatrick 2013, 21; Hill *et al.* 1999, 255), or they may have formed part of composite objects. In this respect it is notable that some were found in graves along with bronze sheets (Andrew Fitzpatrick pers. comm.).

1. RF <10> Copper-alloy tweezers (Fig. 11.1)  
Fill 451 in vessel 447 (Burial 445); Period 2

- Complete. Tweezers with flared, plain blades. Wire suspension ring and slide ring in the form of a collar with circumferential moulding. L64mm.
2. RF <16> Copper-alloy sheet (not illustrated)  
Fill 451 in vessel 447 (Burial 445); Period 2  
Incomplete. Six sheets fragments (0.6mm thick) and one short rod fragment (L8mm+, di 2mm), the latter abraded. Probably from two different, undiagnostic objects.
  3. RF <17> Copper-alloy disc (Fig. 11.3)  
Fill 451 in vessel 447 (Burial 445); Period 2  
Complete. Disc with central perforation and four notches set at equal distance around the circumference. Uncertain function. Di 21mm; hole di 4mm; 1mm thick.
  4. RF <18> Copper-alloy bracelet (Fig. 11.4)  
Fill 451 in vessel 447 (Burial 445); Period 2  
Incomplete. Hollow, sheet bracelet with oval section, decorated with single punched dot line on either side, as well as a further few apparently random short stretches of punched line decoration. An internal plug with overlapping seams and two rivet holes probably joined the armlet together, or may have functioned to adjust or repair the bracelet. There is a third rivet hole with in situ rivet. No corresponding rivet holes survive on the bracelet (several sections have corroded away). Organic remains, probably from a wooden core, were found within the bracelet. A calcite pebble, either abraded or shaped into a roughly ovoid shape, was found trapped inside. It has a line deliberately incised across, giving the resemblance of a grain. Di 75mm; section 13 × 9mm.

### Personal Adornment

#### Brooches

All four brooches recovered from Roxwell Quarry are of pre-Conquest type. They fall into Roman Essex groups 4 and 7 (Clifford 2013). Brooches are all fragmentary and were recovered from three different ditch fills, including two from fill [567] of ditch G39 segment [571]. There is no indication to suggest a structured deposit and they therefore more likely represent casual losses.

- Colchester and derivatives
5. RF <5> Copper-alloy brooch (Fig. 11.5)  
(567), G39 ditch segment 571; Period 2  
Incomplete. Undecorated Colchester type brooch (Hull T90) with short side wings and eight coil spring. Catchplate missing. No original surface surviving. L72mm.
  6. RF <2> Copper-alloy brooch (Fig. 11.6)  
(369), G35 ditch segment 393; Period 2  
Incomplete. Small Colchester Derivative with pierced catch plate (Hull T91; Bayley and Butcher Colchester type Group C). Decorated with transverse mouldings on the side wings. Spring and pin missing. Most of original surface missing. L33mm.
- Langton Down
7. RF <4> Copper-alloy brooch (Fig. 11.7)  
(452), G37 ditch segment 455; Period 2  
Incomplete. Langton Down brooch (Hull T21) with plain reeded decoration. Catch plate and bow foot missing. Spring cover only partially surviving. Six-coil spring broken but present. Traces of white metal plate, probably tinning, survive on bow and spring cover. L64mm+.
  8. RF <6> Copper-alloy brooch (Fig. 11.8)  
(567), G39 ditch segment 571; Period 2  
Incomplete. Langton Down brooch (Hull T21) with six-coiled spring and plain reeded decoration. Bow foot and most of the catch plate and spring are missing. No original surface surviving. L39mm+.

#### Footwear

Despite the fairly long length of the tang, RF <24> is likely part of a cleat (Manning 1985, R54–64). This type of object has been found *in situ* at the feet of several interments and are believed to come from the soles of boots or shoes. Some with very long tangs may have been used to fasten wood instead (Manning 1985, 131).

9. RF <24> Iron cleat (not illustrated)  
(479), pit 480; Period 2  
Incomplete. Fragments from a cleat. Tang length 24mm.

#### Toilet Instruments

As is the case here, the majority of nail cleaners are found on rural sites (Crummy and Eckhardt 2003, 49). The example from Roxwell Quarry was found as part of a toilet set and closest resembles Crummy type 2a (1983) with leaf-shaped blade, which was dated to the mid to late 1st century and possibly going into the 2nd century. The current example retains some incised decoration just below the shoulder. Incised cross and groove decoration such as this is fairly common with examples, *e.g.* in Winchester (Crummy 2008, fig. 39 no. 331) and Portchester (Webster 1975, fig. 113, no. 56, 211). A range of uses for the toilet spoon has been laid out by Crummy (1983).

Toilet instruments appear in the archaeological record in south-east England from the very end of the Iron Age period onwards and increase in number, suggesting an increased emphasis on personal grooming (Hill 1997, 100–102). The appearance of the toilet set (cat. no. 10) as well as the tweezers (cat. no. 1) in the cremation deposit both fit into this pattern.

10. RF <1> Copper-alloy toilet set (Fig. 11.10)  
(366), G35 ditch segment 358; Period 2  
Near complete. Set comprising a nail cleaner and a toilet spoon on a penannular ring. The nail-cleaner (Crummy 1983 type 1b), with suspension loop in the same plane, is decorated with simple incised cross and groove just below the shoulder and ends in a double-pointed tip. L38mm. Ear scoop or cosmetic spoon with integral suspension loop fashioned from flattened handle; near complete cupped oval scoop/bowl. L 51mm+.

#### Textile Production

Evidence for weaving was found in contexts of Late Bronze Age, Late Iron Age and Early Roman date. Fired clay weights are common finds, particularly on low-status rural sites, and textile production would have formed an important part of domestic life. Fabric descriptions are given in Table 4.

#### Bronze Age loomweights

Four cylindrical loomweights were recovered, two of which are complete (cat. nos 11–13, Figs 11.11 to 11.14). All four were found in Late Bronze Age pit [231] and display spalling damage to the base and/or top. This is likely to have occurred at the time of firing.

11. RF <11> Ceramic loomweight (Fig. 11.11)  
(232), Pit 132; Period 1  
Complete with spalling to base. Cylindrical and well-made. Wt 1190g, H80mm, Diam 110mm. Perforation diam. 30mm. Fabric F3.
12. RF <12> Ceramic loomweight (Fig. 11.12).  
(232), Pit 132; Period 1  
Complete with spalling to top and base. Cylindrical. Wt 944g, H77mm, Diam 104mm. Perforation diam 27mm. Fabric F3.
13. RF <13> Ceramic loomweight (Fig. 11.13)  
(232), Pit 132; Period 1  
Incomplete (c.90% surviving) with spalling to base. Recent damage to side. Wt 1060g, H78mm, Diam 108mm. Perforation dimensions 31 by 35mm (oval). Fabric F3.
14. RF <14> Ceramic ?loomweight (Fig. 11.14)  
(232), Pit 132; Period 1  
Incomplete. Domed with off-centre vertical perforation. One end missing. Surviving Wt 166g, H82mm+, Diam 58mm. Perforation diam 12mm. Fabric F4.

### Iron Age loomweights

A total of 130 triangular loomweight fragments were recovered, representing at least twenty-one weights from twenty different contexts. The majority of these are in chalky fabric F1 (Table 4) and it is probable that at least some of the remaining undiagnostic fragments in this fabric, from a further forty contexts, are from loomweights as well. Fabrics F2, F5, F6 and F7 are also represented, but by no more than one loomweight each. Most of the weights are highly fragmented and often abraded and as such, few complete dimensions survive. Triangular weights are ubiquitous finds on predominantly low-status rural sites from the Middle Iron Age onwards and are linked to the use of the upright warp weighted loom. Pottery associated with the current assemblage is mostly of Late Iron Age date, although some was found in Early Roman contexts. The distribution of triangular weight fragments is strongly biased towards Area 3, with most pieces deriving from ditches and pits in the southern half. Given the high fragmentation suggesting extensive reworking, however, this distribution pattern in itself is of little consequence.

### Tools

A socketed knife was found in secondary fill [109] of G23 ditch segment [108]. This type of knife is fairly uncommon with most examples found in London. Examples are known from Late Iron Age to Early Roman contexts, although one was also found in a 3rd-century context (Manning 1985, 118).

15. RF <21> Iron knife (Fig. 11.15) (109), G23 ditch segment 108; Period 2  
Incomplete. Socketed knife with in situ nail. Part of socket missing. Straight blade back; edge curves down and then turns up to form (missing) tip. Manning Type 22 (Manning 1985, 117). L106mm+.

### Weapons

A small iron spearhead was recovered from the surface of G35 ditch segment [369]. The form suggests a mid 1st-century date (Group IA, Manning 1985, 163–4).

16. RF <23> Iron spearhead (Fig. 11.16) (624), surface find  
Incomplete. Narrow leaf-shaped blade with rounded shoulders. Blunted tip. Surface largely missing. L108mm.

### Miscellaneous Objects

The edge of a block of clay (fabric F1; RF <15>) was recovered from fill [509] of ditch G37 segment [503]. The corner is well-made and sharp (90° angle with face widths measuring 80mm+ and 100mm+). The object is obviously not a loomweight, but its function is unclear. They are usually recovered from Late Iron Age contexts and here too the associated pottery is of this date. Other Essex sites with this type of object include Elms Farm, Heybridge (Tyrrell 2015), Little Oakley (Barford 2002, 92), Hill Farm, Tendring (Raemen 2017) and the Orsett 'Cock' Enclosure (Major 1998, 107). At the latter site they were found in relation to a domestic oven floor, and a baking-related function has been put forward, as well as that of a pot stand.

### Medieval Artefacts

#### Dress Accessories

17. RF <22> Copper-alloy mount (not illustrated) (126), G19 ditch segment 129; Period 3  
Incomplete. Sheet leather mount with decorated beaded edge and repoussé band parallel to the edge. Two rivet holes. Both ends and one edge missing. Dimensions 11+ by 5+ mm.

#### Tools and Structural Equipment

In addition to iron U-staple RF <19> and tool socket RF<20>, nine iron general purpose nails were recovered from five different contexts.

18. RF <19> Iron U-staple (not illustrated) (80), G19 pit 79; Period 3  
Incomplete. Rectangular-sectioned; both tips missing. W31mm, L71mm+.
19. RF <20> Iron tool socket (not illustrated) (80) G19 pit 79; Period 3  
Incomplete. Curving fragment from a tool socket with nail hole. L70mm+, W18–31mm+

#### Equestrian Equipment

Two horseshoes were found in post-medieval/modern fill [118] of wheel rut segment [120]. Included is a complete Clark type 4 horse shoe (RF <25>; Clark 1995, 88–91) with one calkin and three nail holes on either branch. The type dates to around the late 13th to mid 15th centuries. A type 2 wavy-edged horse shoe fragment (RF <26>) was recovered from the same context and dates to the 11th to 13th centuries.

#### Fired Clay, by Elke Raeman

A moderate assemblage of fired clay comprising 685 fragments weighing just over 9kg was recovered from ninety-seven individually numbered contexts. All fired clay was quantified by fabric and context. Fired clay was recovered from contexts dated to the Late Bronze Age up to the Roman period. Fragments from medieval contexts are likely to be residual, as is Late Iron Age pottery from the same contexts.

The majority of the assemblage comprises loomweight fragments, including both cylindrical Bronze Age weights and triangular Iron Age weights and the best preserved of these have been discussed with the registered finds. The amount of structural daub is negligible and is not discussed further. Most material is amorphous but much can be identified as probably loomweight based on the fabric.

Eight different fabrics were encountered (Table 4). Fabrics are restricted to specific types of objects and periods; *e.g.* all Bronze Age loomweights are in F3 and all briquetage vessel fragments (all Period 2) are in F8. F1 and F2 are the most common fabrics, occurring in contexts of all periods (in some cases residual) and a vast proportion of clay in this fabric, often badly fragmented and abraded, is likely to be from triangular loomweights.

A small assemblage comprising five briquetage container sherds was found, mainly in Area 3. All five are in F8. Only two thicknesses could be measured, with a sherd from fill [441] in G37 ditch segment [443], measuring 13mm thick, and one from fill [433/434], G36 in ditch segment [450], measuring 15mm thick. The latter is a flat rim with slight external flange and finger streaks where the outer surface was smoothed over.

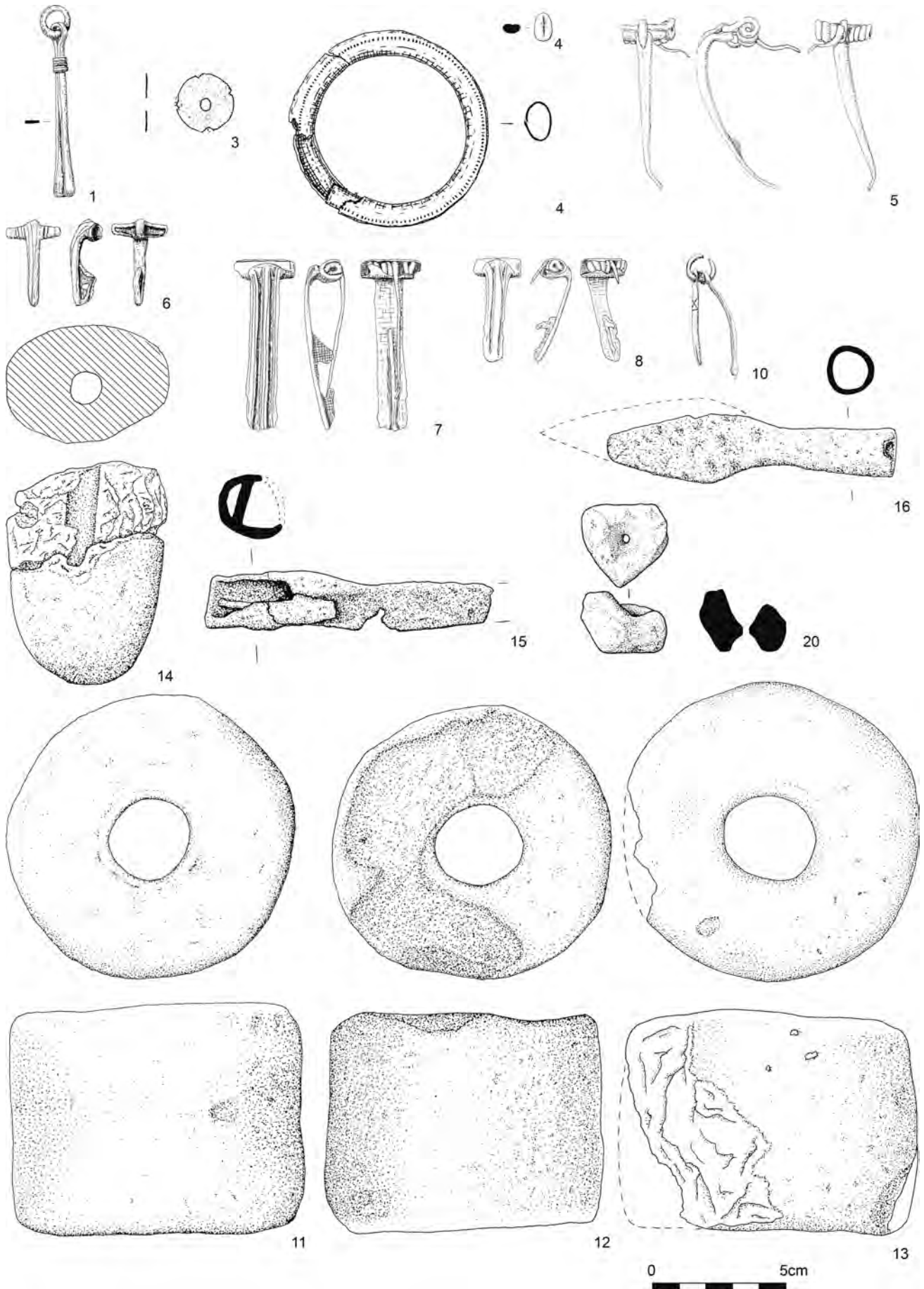


FIGURE 11: Registered finds

Fabrics	Description
F1	Orange, silty fabric with common chalk pellets to 7mm, rare fine quartz, rare organic temper, rare calcereous flint to 13mm and rare iron oxides to 2mm
F2	Orange fabric with rare fine quartz, rare coarse quartz, rare organic temper and rare pebbles to 7mm.
F3	Orange fabric with rare organic temper, rare calcinated flint to 20mm and rare calcereous inclusions to 3mm. Rare fine, coarse and very coarse quartz to 3mm.
F4	Orange fabric with common cream streaks, rare fine quartz and rare organic temper.
F5	Orange, fine friable fabric with rare organic temper, rare crushed flint to 11mm and rare chalk to 4mm.
F6	Orange fabric with rare coarse quartz and rare chalk to 3mm
F7	Orange fabric with rare fine quartz, rare chalk to 2mm and rare organic temper
F8	Orange, silty fabric with common organic temper. Some with rare chalk inclusions to 2mm.

TABLE 4: Fired clay fabric descriptions

Sherds are small and abraded and vessel form cannot be established.

#### Worked Stone, by Hilary Major and Ros Tyrrell

A small amount of worked stone was recovered, comprising seven fragments of lava quern from both Late Iron Age to Early Roman (4/38g) and medieval (3/116g) deposits. The probable piece from a saddle quern in a dull non-calcareous fine/medium sandstone is from Phase 2.1 ditch G35 (fill 398, segment 359). The assemblage also includes two fine sandstone cobbles, probably utilised as rubbers, both of which are from Late Iron Age to Early Roman deposits.

The only other piece of worked stone consists of a truncated pyramidal chalk object, probably an unfinished or spoilt spindle whorl (Fig. 11.20). It has three sides, two of which slope, the other being vertical. The 'top' has been roughly flattened, but the 'bottom' is more irregular, either through erosion, or possibly because the object was not finished. A slight groove along one face at the bottom may represent an unfinished cut. The object has been drilled vertically through the centre from both faces, forming an hourglass-shaped perforation.

20. RF <27> chalk spindle whorl (Fig. 11.20)  
(366) G35 ditch segment 358; Period 2  
Unfinished? Truncated pyramid with central drilled hole. L32mm,  
W31mm, T23mm (max), Wt16g

#### Slag, by Hilary Major and Ros Tyrrell

The excavations recovered forty-five pieces of slag, weighing 783g, from twelve contexts. The majority of the assemblage is of Late Iron Age to Early Roman date though three pieces (62g) are possibly modern as they were discovered in post-medieval/modern ditch G3. The Late Iron Age to Early Roman slag all looks very similar; light in colour and weight, with large vesicles, almost vitrified in places, with occasional flint inclusions, and is probably domestic fuel ash waste. The slag from ditch G3 is denser and darker in colour but still could be of domestic origin rather than associated with iron smithing.

#### Human bone, by Lucy Sibun

A single inhumation [150] was encountered in undated grave [185] within the east end of Area 1. The preservation of the human bone was good, but all skeletal elements were

extremely fragmented. Disarticulated fragments were also recovered from fill [173] in nearby pit [174].

A complete skeletal and dental inventory has been produced for skeleton [150]. Age estimation is based upon epiphyseal fusion data (Schaefer *et al.* 2009) and dental wear (Brothwell 1981). Due to the fragmentary nature of the remains no sexually dimorphic fragments were present and no metrical data was available. All skeletal elements, including those from pit [174], were examined for pathological lesions.

Inhumation [150] was incomplete and no complete elements present (Table 5). Included amongst the remains were loose teeth from the maxilla and mandible, with thirteen of the possible thirty-two adult teeth present.

	Left	Right
Cranium		Highly fragmented
Mandible		✓
Humerus	✓	✓
Vertebrae		Cervical, thoracic and lumbar fragments
Scapula	✓	✓
Clavicle	✓	✓
Radius	✓	
Ulna	✓	✓
Carpals		✓
Phalanges		✓
Ribs	✓	Fragments only
Innominate	✓	✓
Sacrum		Fragments only
Femur	✓	✓
Patella		✓
Tibia	✓	✓
Fibula		✓

TABLE 5: Surviving skeletal elements of inhumation [150]

Group Number	Context	frag size	Weight per skeletal element (g)				unident	% of whole	total
			skull	axial	Upper limb	Lower limb			
G51	426	0-4					7.7	18.8	41.0
		5-10	6.3	0.7		1.9	15.4	59.3	
		11-20	2.3	0.5	4.4	1.8		21.9	
		<i>Percentage of identifiable fragments</i>	48	6.7	24.60	20.7			
G51	432	0-4					7	1	686.3
		5-10	33.9	0.9			203.1	34.7	
		11-20	82.5	24.4	51.8	74.6	115.2	50.8	
		21-30	24	2.5	25.9	28		11.7	
		30+				12.5		1.8	
<i>Percentage of identifiable fragments</i>	38.9	7.7	21.50	31.9					
G51	451	0-4					246.4	20.6	1195.7
		5-10	35.1	10.4	30.1	6.1	325	34	
		11-20	94.3	41.2	67.3	111.2	60.2	31.3	
		21-30	41.4	20.5	8.9	81.3		12.7	
		30+				16.3		1.4	
<i>Percentage of identifiable fragments</i>	30.3	12.8	18.80	38.1					
G51	598	0-4					14.8	15.8	93.6
		5-10	9.5				26.8	38.8	
		11-20	10.8		10.4	6.9		30	
		21-30			6.2	8.2		15.4	
<i>Percentage of identifiable fragments</i>	39		31.90	29					

TABLE 6: Summary of results from analysis of cremation burials

Based upon epiphyseal fusion data the individual represented by inhumation [150] is a young adult and this is supported by tooth wear analysis. Sexing and estimation of stature were not possible. No pathological lesions were noted on the skeleton, but a difference was noted in the humeral shafts, with the distinctly more robust right humerus perhaps indicative of a right-handed individual.

The small quantity of human bone recovered from pit [174] was in a poor state of preservation. The largest fragment was 45mm in length and all fragments had suffered some surface erosion. Most of the surviving elements comprised long bone fragments, but six loose adult teeth were also present and the minimum number of individuals (MNI) for the assemblage was one. Unfortunately, there were no fragments that could be used for accurate age or sex estimations, but all the teeth are unworn, suggesting a younger adult. No pathological lesions were noted.

#### *Cremated bone*

Cremated human bone was recovered from a total of four deposits [426, 432, 451 and 598] from the four G51 cremation burials. Recording and analysis of the bone followed the procedures outlined by McKinley (2004). Age estimations were carried out with reference to Bass (1987), Buikstra and Ubelaker (1994) but were only possible as adult or probable adult. No sex estimations were possible. One of the cremations

is almost certainly Late Iron Age [451], one probably Late Iron Age [598] and two possibly Late Iron Age [426 and 432]. Of these, only [451] was recovered from a vessel. All deposits were recovered and processed as bulk soil samples. The results of analysis are presented in Table 6.

The burials appeared to contain the remains of single, adult individuals. Unfortunately, it was not possible to estimate age more precisely. The assemblages did not contain any sexually dimorphic fragments and no pathological lesions were noted.

The assemblages range from 60% to 100% calcined with the resulting fragments off-white in colour. The remaining fragments are grey or black in colour. The only efficient cremation, with temperatures reaching in excess of 600°C (McKinley 2004, 11) was [451], which was also the only assemblage to be recovered from a vessel. The other assemblages were between 60% [432] and 85% [598] calcined, suggesting a less efficient cremation process at lower temperatures. The internal surfaces of fragments were grey/black in many cases and in some instances entire fragments were charred black or grey. This variation could result from different areas of the skeleton being subjected to different temperatures throughout the pyre, but all areas of the skeleton seem to have been equally affected.

The quantities of cremated bone recovered ranged from 41.0g in [426] to 1,195.7g in [451] with a mean average of

504.15g. The 1,195g represents approximately 73% of the expected weight of cremated bone produced by an adult, whilst the fragments from [426] represent approximately 2.5% (McKinley 1993, 285). It is also worth noting that the 1,195g was recovered from the urned cremation burial [445] and was therefore protected.

Un-urned cremation burials without the protection of a vessel are usually highly fragmented, with large percentages of the bone assemblage being recovered from the smaller fractions. In this assemblage there was no apparent difference between the urned and un-urned burials, with the majority, between 34% and 59%, being recovered from the 0–4mm and 5–10mm fractions in all but one burial [432]. In [432] the majority was recovered from the 11–20mm fraction.

All cremation burials contained fragments identifiable to skeletal area. The axial skeleton was represented in all but one assemblage and consistently formed the smallest percentage of the identifiable fragments (6.7–12.8%). With the exception of cremated bone deposit [451], skull fragments formed the majority of identifiable fragments (between 39% and 48%). Lower limb fragments constituted the majority in [451] (38%) and between 20% and 31% in the other assemblages. The upper limb comprised between 19% and 32%. As the deposits were not excavated in spits it was not possible to assess spatial patterning within each burial.

It is not surprising that the largest single fragment, which was from a femoral shaft and measured 53mm, was from [451], which had the protection of a vessel. However, un-urned burial [432] also produced a fragment of over 30mm (36mm). Smaller elements of the skeleton, for example tooth roots and small bones of the hands and feet, were recovered from all four assemblages. McKinley suggests that this may be a reflection of the burial ritual, suggesting en-masse collection, rather than hand selection (McKinley 2006, 29). No animal bone was noted in any of the assemblages.

#### **Animal bone**, by Gemma Ayton

The animal bone assemblage includes 2,166 fragments from phased contexts of which just 662 could be identified to taxa (Table 7). The assemblage is characterised by highly fragmented and poorly preserved specimens that have been recovered from pits and ditches dating from the prehistoric to the post-medieval periods, the majority deriving from Period 2 (Late Iron Age to Early Roman) features with insubstantial scatterings of bones recovered from other periods.

The assemblage is dominated by domestic taxa, including cattle, sheep/goat, pig, horse, dog and domestic fowl, with very little evidence regarding the exploitation of wild mammals, birds or fish (Table 8).

Period	No. of Fragments	Total NISP
1	10	7
2	2078	623
3	61	21
4	17	11
<b>Total</b>	<b>2166</b>	<b>662</b>

TABLE 7: The total number of fragments and NISP (Number of Identified Specimen) counts by period

Taxa	Period 1	Period 2	Period 3	Period 4
Cattle	1	174	12	3
Sheep/Goat	3	60	3	
Pig		81	2	
Horse		36		
Dog		6		
Roe Deer		1		
Large Mammal	1	167	2	6
Medium Mammal	2	93	2	2
Domestic Fowl		2		
Bird		1		
Eel		1		
Fish		1		

TABLE 8: NISP (Number of Identified Specimen Counts) by period

According to NISP counts (Table 8), the Period 2 assemblage is dominated by cattle followed by pig and sheep/goat. However, MNI calculations reveal that sheep/goat are the dominant taxa followed by cattle and pig respectively. The minimum number of individuals by species were six for cattle, seven for sheep/goat and three for pig.

The three main domesticates are represented by both meat bearing and non-meat bearing bones and no activity areas can be identified. The cattle and sheep/goat assemblages contain few epiphyseal ends though the majority of specimens that have survived are fused suggesting an older population with an emphasis on secondary products. The pig assemblage is dominated by unfused elements as pigs would have been raised primarily for meat.

The Late Iron Age and Early Roman assemblages from the nearby villa at Chignall (Luff 1998) are similar in species composition with very few wild mammals and wild and domestic birds represented. However, at Chignall, by contrast, cattle are the dominant species, a trend that is reflected at other high-status Roman sites (King 1989).

The analysis of the Late Iron Age/Early Roman animal bone assemblage from Roxwell Quarry suggests that animal husbandry activity focused on the rearing of domestic mammals, with wild and domestic birds and fish making minimal contributions to the diet. The continuing dominance of sheep/goat indicates that the Roman conquest had no immediate effect on the husbandry regimes.

#### **Environmental Remains**, by Lucy Allott

Small assemblages of macrobotanical remains and charcoal were recovered from samples taken during archaeological excavations at the site. A total of twenty-seven samples were taken from Late Iron Age/Early Roman, medieval and post-medieval/modern features to establish the presence and range of charred macrofossil remains, wood charcoal and other environmental remains such as fauna and mollusca. Features sampled include funerary related pit features, some of which contained burnt bone, deposits associated with skeleton [150], pits and ditches.

*Method*

Bulk samples were processed by flotation with both the coarse residue fraction and flot retained on 500µm meshes. The flots were subsequently weighed, measured and scanned under a stereozoom microscope at x7–45 magnifications. Identifications of macrobotanical remains have been made using modern comparative material and reference texts (Cappers *et al.* 2006; Jacomet 2006; NIAB 2004). Tabulations of the macrobotanical remains by sample number and context can be found in the site archive. Nomenclature follows Stace (1997). The term ‘seed’ in the text refers to fruiting bodies including nutlets and true seeds.

*Overview of the assemblages*

The majority of samples are from Late Iron Age/Early Roman features. The medieval and post-medieval periods are represented by single samples only. Very few identifiable macrobotanical remains were present in the medieval and post-medieval samples; these are not considered further. The preservation of the charred macrobotanical remains was generally poor to moderate. Many of the cereals were fragmented and could not be conclusively identified beyond genus. Other macrobotanical remains were also often fragmented although there are a few well preserved examples such as the grape pip (*Vitis vinifera*) and possible sloe (*Prunus cf. spinosa*) stone. Wood charcoal fragments were comparatively infrequent. Undated pit [74] and Late Iron Age or earlier cremation [597] were the only features rich in wood charcoal fragments. Most fragments measured less than 4mm in size and frequently less than 2mm. The assemblage in pit [74] composed charred twigs as well as fragments from mature wood.

*Funerary related features*

Cremation pits [425, 431 and 597] in the north part of Area 3 contained very few macrobotanical remains or wood charcoal fragments. Occasional poorly preserved cereal caryopses, a fragment of common pea or a vetch/wild pea, a small grass caryopsis, a sedge nutlet and a possible sloe stone were identified. The origin of these remains is unknown and such small assemblages cannot be attributed with any certainty to the deliberate introduction of important food items within the pyre. Instead, all of these plant remains could originate from other sources. The cereals, grass seed and sedge may for example have been incorporated in kindling and the sloe stone could have been brought in with wood fuel. Onion couch grass tubers were also recorded in two other funerary related pits both of which also contained burnt bone fragments. Locally such tubers have also been recorded in Roman cremation deposits at Handford House, Colchester (Fryer 2010) and Early Saxon cremations at Springfield Lyons, Chelmsford (Murphy 1990). This invasive crop weed is relatively common in cremations in Britain and their presence is often attributed to either their deliberate use as tinder or their introduction with cereals from arable fields and/or grasses from ungrazed land that might have been uprooted for tinder (Robinson 1988).

*Ditches*

Late Iron Age/Early Roman ditch segments produced small assemblages of macrobotanical remains and small infrequent flecks of wood charcoal. Two of the samples from segments

[108] and [347] of ditches G23 and G46 respectively contained no macrobotanical remains, while only small assemblages of charred cereal caryopses (including some wheat) and vetch/wild pea or common pea fragments, seeds of brome grass, knotgrass and ribwort plantain were recorded. These provide some evidence for grassland vegetation.

*Pits*

Primary fill [479] of Phase 2.1 pit [480] produced only a single fragment of vetch/wild pea/common pea while secondary fill [478] contained a more diverse range of macrobotanicals including cereal caryopses of wheat and barley, a hazel nut shell fragment, grass seed and vetch/wild pea. Of interest is an amalgam of charred plant remains of unknown origin. These are primarily unidentifiable, however a barley grain is enclosed in the mixture and given the presence of other remains consistent in morphology with seed coat fragments which may also derive from cereal caryopses, the amalgam may represent waste from grain that was processed, perhaps by grinding.

*Conclusions*

The samples from Roxwell Quarry provide little indication of the range of cereal and non-cereal crops cultivated or the associated arable practices during the Late Iron Age/Early Roman occupation. The scarcity of evidence equates well with that noted by Murphy (1990) at Springfield Lyons. Alongside the wheat and barley crops the weed/wild seed assemblage hints at the presence of grassland vegetation although a detailed description of this habitat is not possible. Onion couch grass could be interpreted as evidence for ungrazed grassland or it could equally have been a troublesome weed amongst cereal crops. Edible fruits and nuts do not make up a large component of the assemblage. The sloe stone and hazel nut shell are most likely incidental inclusions in the fills of the cremations and pits respectively. Although the charred grape pip is more likely to derive from food remains, its association with skeleton [150] may be incidental occurring only as a component of the grave backfill rather than as a deliberately placed item.

**DISCUSSION**

The later prehistoric and Late Iron Age enclosures at Roxwell Quarry probably represent areas of agricultural activity close to settlement sites, the precise locations of which are not archaeologically identifiable or were located outside the excavation areas and have yet to be discovered. The pottery and the many fragments of Late Bronze Age and Iron Age loomweights probably relate to the undertaking of activities within a domestic context, as do the Globular Urns from Late Bronze Age pit [231].

If structure G9 represents a Middle Iron Age granary, as is suggested, then it was probably closely accompanied by a settlement, even though no farmstead remains have been found to confirm this. Examples of Iron Age four-post granaries are common in the archaeological record and are normally located in domestic sites alongside houses. Good examples of this are provided by the Middle Iron Age ‘village-like’ settlements at Little Waltham, and at St Osyth, near Clacton (Drury 1978, 11–37 and 124; Germany 2007, 43–58). Explanations for close association between granaries and



houses are ease of access and safe-guarding of the granaries' contents from vermin and thieves.

The later prehistoric settlements which are conjectured to have been present either within or close to Roxwell Quarry are likely to have accorded with the defining characteristics of Cunliffe's later prehistoric British Eastern Zone, an area roughly matching that of present-day East Anglia, Lincolnshire and south Yorkshire, the settlement pattern of which probably composed steadily increasing numbers of dispersed homesteads and 'village-like' settlements (Cunliffe 2005, 586–588). Examples of later prehistoric homesteads and 'villages' have been found within the wider localities of Roxwell and Chelmsford and are in full accordance with Cunliffe's defining characteristics. They include Late Bronze Age ringwork settlements at Great Baddow and Springfield Lyons, and the Middle Iron Age 'village-like' settlement at Little Waltham (Brown and Lavender 1991 and 1994; Brown and Medlycott 2013; Drury 1978). Other examples are the Middle and Late Iron Age round-houses within individual enclosures at nearby Chignall Hall and south of the Roman villa at Chignall St James (Bedwin 1987; Clarke 1998).

A period of depopulation, dislocation and change is posited to have inflicted the native inhabitants of the area of Stansted during the half century or more following on from the Roman invasion of Britain in AD 43 (Cooke *et al.* 2008). This can be suggested to have also taken place at Chignall, Roxwell and Chelmsford, although the evidence for it is not as strong as it is for Stansted, probably due to the latter having witnessed a greater amount of archaeological investigation. One of two pieces of supporting evidence for disruption also having taken place within central Essex is the Late Iron Age settlement near the villa site at Chignall St James (Clarke 1998), since it appears not to have continued for long into the Roman period, and thus can be suggested to have been a victim of the imposition of the Roman villa. The other is the pre-Roman settlement of round-houses which was discovered beneath one of the two Early Roman forts in the middle of Chelmsford. In that case it can be suggested to have been a fatality of the Roman military, although the dating evidence for it is too imprecise to make it more certain (Wickenden 1996).

If the second half of the 1st century AD was a period of dislocation for the native inhabitants of central Essex as well as Stansted, then its effects on the Phase 2.2 enclosures at Roxwell Quarry may have been to finish off an already existing process of steady decline, since the stratigraphic and pot-dating evidence strongly suggest that the Phase 2.2 ditches were largely filled up and were probably no longer in use by the mid 1st century AD. The archaeological work has found no direct evidence for the settlement, which would have been associated with the Phase 2.1 enclosures, although if its condition ran parallel with that of its enclosures then it too would have been in a state of decline by the beginning of the second half of the 1st century AD.

The enclosures of Phase 2.2 are clearly more regular than their previous counterparts and may have been an attempt to revitalise use of the site for agriculture by adopting a more managed approach to food production during the period immediately following the Roman conquest. If this was so then it was ultimately unsuccessful because their dating evidence probably implies that they were no longer in use by

the middle part of the second half of the 1st century AD. An additional explanation for the mid-1st-century AD change in form and layout is that it indicates a change in practice, perhaps a shift from animal husbandry towards growing of crops, since the generally perpendicular and more regular form of the Phase 2.2 set of enclosures would have made them easier to plough. Examples of irregular-looking Iron Age enclosures similar to those of Roxwell Phase 2.1 are not uncommon but are seldom so wayward. It may be that their irregular form is a consequence of a chain of *ad hoc* events, rather than thoughtful pre-planning, although it could be that their eccentric form was in some way more facilitating to the handling of sheep and cattle. It is not known if the introduction of the formal-looking enclosures of Phase 2.2 is due to Roman incomers and/or of the site's original owners adopting new practices.

The animal bone assemblage is too small and fragmented to be very informative, although it suffices to indicate that some of Roxwell's occupants were keeping and/or consuming sheep, cattle, pigs, horses, dogs and domestic fowls. Cattle and sheep are likely to have been the mainstays of this animal husbandry since both provide milk, meat and leather, sheep provide wool, and cattle can also be used to pull wagons and ploughs. The spindle whorl and the many fragments of Iron Age loomweights, most of which come from the large ditches of Area 3, imply use of wool in the making clothes and blankets. Additional evidence for the local terrain's suitability for animal husbandry is that cattle farming was a mainstay of the economy of the nearby Roman villa (Clarke 1998).

Evidence to indicate that the occupants of Roxwell Quarry were initially moderately-high status includes the pieces of early imported ceramic wares and the non-ferrous metalwork as they embrace four brooches, a pair of tweezers, an unusual hollow-sheet bracelet, and a copper-alloy toilet set of nail cleaner and toilet spoon on a penannular ring. The individual represented by cremation burial [445] is likely to have been fairly wealthy and influential since four of the aforementioned non-ferrous metal items, including the hollow-sheet bracelet, come from that grave. The other cremation burials [425, 431 and 597] are insecurely dated but are perhaps people of lower social status since their graves contain no artefacts. The early imported pottery vessels suggest emulation of Gallo-Roman culinary and wine-drinking culture, a product of long-standing exchange networks between Cunliffe's British Eastern Zone (Cunliffe 2005, 586–588) and mainland Europe.

Cremation burial during the Late Iron Age period probably first appeared in east and south-east England from the beginning of the 1st century AD onwards as links with Gaul increased (Cunliffe 2005, 559) but probably never amounted to anything more than a minority practice, in relation to the earlier and continuing rite of excarnation. Graves [425, 431, 445 and 597] can be categorised as being of Aylesford-type, which are generally typified by solitary or small groups of burials, sometimes in pottery vessels and sometimes accompanied by grave goods. Aylesford-type burials have been found at Stansted and the Stansted to Braintree section of the A120 bypass (Timby *et al.* 2007, 117–138; Cooke *et al.* 2008, 121–4) but are less common within central Essex, although this apparent sparsity has now been partly rectified by those at Roxwell.

Inhumation [150] and the contents of pit [174] in the east end of Area 1 possibly represent a cemetery site of at least two individuals. Both sets of bones remain undated but are perhaps Roman or Early Saxon because of the north to south orientation of inhumation [150], making it unlikely that they are Christian. If the skeletal contents of [150] and pit [174] are Roman then they are possibly remnants of Late Roman tenant farmers, comparable to those of the Late Roman cemetery at nearby Chignall St James (Clarke 1998, 140–141).

The latest features at Roxwell are of medieval and post-medieval to modern date and largely comprise pits, field and trackway ditches. The medieval features have produced sherds of pottery associated with both domestic and working areas and are probably connected with a nearby 13th-century peasant holding, the location of which remains undiscovered. Peasant holdings were commonplace in the rural landscape during the medieval period and if one had been sited near Roxwell Quarry then it is not remarkable. Common occurrence of medieval remains is further demonstrated by the strip fields and the 13th-century building remains at Chignall Hall and Stevens Farm (Brooks 1992).

The post-medieval/medieval ditches relate to an agrarian landscape that is likely to have developed from medieval antecedents and to have been occasionally amended and altered during its subsequent use. The trackway defined by ditches G23 and G24 is probably a short-lived haul road related to mineral extraction and the large, un-investigated sub-square post-medieval/modern pit in the middle of Area 3.

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## BIBLIOGRAPHY

- Barford, P.M. 2002, *Excavations at Little Oakley, Essex, 1951–78. Roman Villa and Saxon Settlement*, E. Anglian Archaeol. 98
- Bass, W. 1987, *Human Osteology: a Laboratory and Field Manual*, 3rd special publication no. 2 of the Missouri Archaeological Society, Columbia
- Bedwin, O. 1987, 'Chignall St. James, Chignall Hall', in Priddy, D., 'Work of the Essex County Council Archaeology Section 1986', *Essex Archaeol. Hist.*, 3rd Ser., 18, 92
- Bellows, J. 1881, 'On some bronze and other articles found near Birdlip', *Trans. Bristol and Gloucestershire Archaeol. Soc.* 5, 137–41
- Biddulph, E., Jones, G.P. and Stansbie, D. 2007, 'Late Iron Age and Roman pottery', in Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A., *A Slice of Rural Essex: Archaeological Discoveries from the A120 between Stansted Airport and Braintree*, Oxford Wessex Archaeology Monogr. 1 CD-ROM
- Brooks, H. 1992, 'Two rural medieval sites in Chignall St James: excavations 1989', *Essex Archaeol. Hist.* 3rd Ser., 23, 39–50
- Brothwell, D. 1981, *Digging Up Bones* (Cornell Univ. Press)
- Brown, N. 1988, 'A Late Bronze Age Enclosure at Lofts Farm, Essex', *Proc. Prehist. Soc.* 54, 249–302
- Brown, N. and Lavender, N. 1991, 'Great Baddow', in Gilman, P.J. (ed.), 'Excavations in Essex 1990', *Essex Archaeol. Hist.*, 3rd Ser., 22, 153–154
- Brown, N. and Lavender, N. 1994, 'Later Bronze Age sites at Great Baddow and settlement in the Chelmer valley, Essex, 1500 to 500 BC', *Essex Archaeol. Hist.* 3rd Ser., 25, 3–13
- Brown, N. and Medlycott, M. 2013, *The Neolithic and Bronze Age Enclosures at Springfield Lyons, Essex: Excavations 1981–1991*, E. Anglian Archaeol. 149
- Buikstra, J.E. and Ubelaker, D.H. 1994, *Standards for data collection from the human skeleton*, Arkansas Archaeological Survey Research Ser. 44. Fayetteville, Arkansas
- Butler, C. 2005, *Prehistoric Flintwork*, (Stroud, Tempus)
- Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006, *Digital Seed Atlas of the Netherlands*. Groningen Archaeol. Ser. 4, (Netherlands, Barkhuis)
- Cheer, P. 1998, 'Late Iron Age pottery', in Carter, G.A., *Excavations at the Orsett 'Cock' Enclosure, Essex, 1976*, E. Anglian Archaeol. 86, 89–93
- Clark, J. 1995, *The Medieval Horse and its Equipment c.1150–1450*, Medieval Finds from Excavations in London 5
- Clarke, C.P. 1998, *Excavations South of Chignall Roman Villa, Essex, 1977–81*, E. Anglian Archaeol. 83
- Clifford, T. 2013, 'Personal adornment and dress Accessories—brooches', in Perring, D. and Pitts, M., *Alien Cities: Consumption and the Origins of Urbanism in Roman Britain*, 195–204
- Cooke, N., Brown, F. and Philpotts, C. 2008, *From Hunter Gatherers to Huntsmen. A History of the Stansted Landscape*, Framework Archaeology Monogr. 2
- Cotter, J. 2000, *The Post-Roman Pottery from Excavations in Colchester 1971–8*, Colch. Archaeol. Rep. 7
- Crummy, N. 1983, *The Roman Small Finds from Excavations in Colchester 1971–*, Colch. Archaeol. Rep. 2
- Crummy, N. 2008, *Artefacts and Society in Roman and Medieval Winchester. Small finds from the Suburbs and Defences, 1971–1986* (Winchester Museums Services)
- Crummy, N. and Eckhardt, H. 2003, 'Regional identities and technologies of the self: nail cleaners in Roman Britain', *Archaeol. J.* 160, 44–69
- Crummy, P., Benfield, S., Crummy, N., Rigby, V. and Shimmis, D. 2007, *Stanway: an Elite Burial Site at Camulodunum*, Britannia Monogr. Ser. 24 (London)
- Cunliffe, B. 2005, *Iron Age Communities in Britain* (4th edition, London, Routledge)
- Cunningham, C. 1985, 'A typology for post-Roman pottery in Essex', in Cunningham, C.M. and Drury, P.J., *Post-Medieval Sites and their Pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeol. Trust Rep. 5, Counc. Brit. Archaeol. Res. Rep. 54, 1–16
- Department of the Environment 1990, *Planning Policy Guidance 16: Archaeology and Planning* (HMSO)
- Drury, P.J. 1978, *Excavation at Little Waltham 1970–71*, Counc. Brit. Archaeol. Res. Rep. 26; Chelmsford Excavation Committee Rep. 1
- Drury, P.J. 1993, 'The later Saxon, medieval and post-medieval pottery', in Rodwell, W.J. and Rodwell, K.A., *Rivenhall: Investigations of a Villa, Church and Village, 1950–1977*, Chelmsford Archaeol. Trust Rep. 4.2, Counc. Brit. Archaeol. Res. Rep. 80, 78–95
- Fitzpatrick, A. 2013, 'Call for finds: Late Iron Age circular knives', *Later Prehistoric Finds Group Newsletter Issue 2*, 21
- Ford, S. 1987, 'Chronological and functional aspects of flint assemblages', in Brown, A. and Edmonds, M. (eds), *Lithic Analysis and Later British Prehistory*, Brit. Archaeol. Rep., Brit. Ser., 162, 67–81 (Oxford)
- Fryer, V. 2010, 'Charred plant macrofossils and other environmental remains', in Orr, K., *Archaeological Excavations at 1 Queens Road (Handford House, now 'Handford Place'), Colchester, Essex 2003 and 2004–2005*, unpubl. Colch. Archaeol. Trust Rep. 323
- Fulford, M. and Timby, J. 2001, 'Timing devices, fermentation vessels, ritual piercings? A consideration of deliberately holed pots from Silchester and elsewhere', *Britannia* 32, 293–297
- Germany, M. 2007, *Neolithic and Bronze Age Monuments and Middle Iron Age Settlement at Lodge Farm, St Osyth, Essex*, E. Anglian Archaeol. 83
- Going, C.J. 1987, *The Mansio and other Sites in the South-Eastern Sector of Caesaromagus: the Roman Pottery*, Counc. Brit. Archaeol. Res. Rep. 62
- Haffner, A. 1971, *Das Keltisch-Römische Gräberfeld von Wederat-Belgium I*, Trierer Grabungen und Forschungen 6, 1 (Mainz)

- Haffner, A. 1974, *Das Keltisch-Römische Gräberfeld von Wederath-Belginum II*, Trierer Grabungen und Forschungen 6, 2 (Mainz)
- Hawkes, C.F.C. and Hull, M.R. 1947, *Camulodunum: first report on the excavations at Colchester 1930–39*, Rep. Res. Committee Soc. Antiq. London 14
- Hill, J.D. 1997, 'The end of one kind of body and the beginning of another kind of body? Toilet instruments and Romanisation in southern England during the first century AD', in Gwilt, A. and Haselgrove, C. (eds), *Reconstructing Iron Age Societies* (Oxford), 96–107
- Hill, J.D., Evans, C. and Alexander, M. 1999, 'The Hinxton Rings. A Late Iron Age cemetery at Hinxton, Cambridgeshire, with a reconsideration of Northern Aylesford distributions', *Proc. Prehist. Soc.* 65, 243–273
- Horsley, K. and Wallace, C.R. 1998, 'The Late Iron Age and Roman pottery', in Wallis, S. and Waughman, M., *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82, 142–157
- Hull, M.R. 1958, *Roman Colchester*, Rep. Res. Committee Soc. Antiq. London 20
- Hull, M.R. 1963, *The Roman potter's kilns of Colchester*, Rep. Res. Committee. Soc. Antiq. London 21
- Inizan, M.L., Reduron-Ballinger, M., Roche, H. and Tixier, J. 1999, *Technology and Terminology of Knapped Stone. Tome 5*, Cercle de Recherches et d'Etudes Préhistoriques (CREP), Nanterre
- Jackson, R. 1986, 'A set of Roman medical instruments from Italy', *Britannia* 17, 119–167
- Jacomot, S. 2006, *Identification of Cereal Remains from Archaeological Sites*, 2nd ed. Archaeobotany Laboratory, IPAS, Basel University. Unpubl. manuscript
- King, A.C. 1989, 'Villas and animal bones', in Branigan, K. and Miles, D. (eds), *The Economies of Romano-British villas* (Sheffield), 51–59
- Luff, R. 1998, 'The faunal remains' in Clarke, C.P., *Excavations south of Chignall Roman Villa, Essex, 1977–81*, E. Anglian Archaeol. 83
- Major, H. 1998, 'Fired clay', in Carter, G.A., *Excavations at the Orsett 'Cock' Enclosure, Essex, 1976*, E. Anglian Archaeol. 86, 106–110
- Manning, W.H. 1985, *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*
- Martin, T.S. 1996, 'A group of finds from the vicinity of the Noah's Ark Roman villa at Brightlingsea, Essex', *Essex Archaeol. Hist.* 27, 3rd Ser., 311–319
- McKinley J.I. 1993, 'Bone fragment size and weights of bone from modern British cremations and their implications for the analysis of archaeological cremations', *Int. J. Osteology* 3, 283–7
- McKinley, J.I. 2004, 'Compiling a skeletal inventory: cremated human bone', in Brickley, M. and McKinley, J.I. (eds), *Guidelines to the Standards for Recording Human Remains*, Brit. Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 9–13
- McKinley, J. 2006, *Channel Tunnel Rail Link, London and Continental Railways. Human remains from section 1 of the Channel Tunnel Rail Link, Kent* (Oxford Wessex Archaeology)
- Meddens, F.M. and Redknap, M. 1992, 'A group of kiln waste from Harding's Farm, Mill Green, Essex', *Medieval Ceramics* 16, 11–43
- Murphy, P. 1990, *Springfield Lyons, Chelmsford, Essex: Carbonised Plant Remains from Neolithic, Late Bronze Age, Iron Age, Roman, Early and Late Saxon Contexts*, Ancient Monuments Laboratory Rep. 11/90
- NIAB. 2004, *Seed Identification Handbook: Agriculture, Horticulture and Weeds*, 2nd ed. (Cambridge, NIAB)
- Pearce, J.E., Vince, A.G. and White, R. 1982, 'A dated type-series of London medieval pottery part one: Mill Green ware', *Trans. London Middlesex Archaeol. Soc.* 33, 266–298
- Pearce, J.E., Vince, A.G. and Jenner, M. 1985, 'A dated type series of London medieval pottery part two: London-type ware', *Trans. London Middlesex Archaeol. Soc. Special Paper* 6
- Philpott, R. 1991, *Burial Practices in Roman Britain. A Survey of Grave Treatment and Furnishing, AD43–410*, Brit. Archaeol. Rep., Brit. Ser., 219
- Price, E. 2000, *Frocester: A Romano-British Settlement. It's Antecedents and Successors. Volume 2, the Finds* (Stonehouse)
- Raemen, E. and Barber, L. 2017, 'The registered finds', in Heppell, E.M., 'A Prehistoric and Roman Landscape on the Tendring Plateau: Investigation at Hill Farm, Tendring', *Essex Archaeol. Hist.*, 4th Ser., 7, 36–41
- Rahtz, P.A., Hirst, S. and Wright, S.M. 2000, *Cannington Cemetery. Excavations 1962–3 of Prehistoric, Roman, Post-Roman and Later Features at Cannington Park Quarry, near Bridgewater, Somerset*, Britannia Monogr. 17
- Robinson, M. 1988, 'The significance of the tubers of *Arrhenatherum elatius* (L.) Beauv.', in Lambrick, G., *The Rollright Stones, Megaliths, monuments and settlements in the prehistoric landscape*, English Heritage Archaeol. Rep. 6 (London, HBMC)
- Schaefer, M., Black, S. and Scheuer, L. 2009, *Juvenile Osteology: a Laboratory and Field Manual*, (London, Academic Press)
- Scott, I. 2012, 'Metal objects from grave 4298', in Allen, T., Donnelly M., Hayden, C. and Powell, K., *A Road through the Past: Archaeological Discoveries on the A2 Pepperhill to Cobham road scheme in Kent*, Oxford Archaeol. Monogr. 16, 290–295
- Sealey, P. 1985, *Amphoras from the 1970 excavations at Colchester Sheepen*, Brit. Archaeol. Rep., Brit. Ser., 142 (Oxford)
- Stace, C. 1997, *New Flora of the British Isles* (Cambridge Univ. Press)
- Stead, I.M., Flouest, J.I. and Rigby, V. 2006, *Iron Age and Roman burials in Champagne* (Oxford)
- Thompson, I. 1995, 'Belgic pottery', in Wymer, J.J. and Brown, N.R., *Excavations at North Shoebury: Settlement and Economy in South-East Essex 1500BC–AD1500*, E. Anglian Archaeol. 107, 238–245
- Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. 2007, *A Slice of Rural Essex. Recent Archaeological Discoveries from the A120 between Stansted Airport and Braintree*. Oxford Wessex Archaeology Monogr. 1
- Tyrell, R. 2015, 'Baked clay', in Atkinson, M. and Preston S.J., 'Baked clay', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*. Internet Archaeology 40. Available: <<http://dx.doi.org/10.1114/ia.40.1.tyrell11>> Accessed 12 July 2017)
- Van Endert, D. 1991, *Die Bronzefunde aus dem Oppidum von Manching, Die Ausgrabungen in Manching* 13
- Vince, A.G. 1991, 'Early medieval London: refining the chronology', *London Archaeol.* 6, 263–71
- Walker, H. 1992, 'Medieval pottery', in Brooks, H., 'Two rural medieval sites in Chignall St James: excavations 1989', *Essex Archaeol. Hist.*, 3rd Ser., 23, 46–8
- Walker, H. 2004, 'Medieval pottery', in Havis, R. and Brooks, H., *Excavations at Stansted Airport, 1986–91, Volume 2*, E. Anglian Archaeol. 107, 398–435
- Walker, H. 2008, 'The medieval pottery', in Wade, A. and Havis, H., 'The archaeology of the A133 Little Clacton to Weeley bypass: Gutteridge Hall', *Essex Archaeol. Hist.*, 3rd Ser., 39, 19–33
- Walker, H. 2012, *Heddingham Ware: a medieval pottery industry in North Essex; its production and distribution*, E. Anglian Archaeol. 148
- Webster, J. 1975, 'Bronze and Silver', in Cunliffe, B., *Excavations at Portchester Castle. Volume 1. Roman*, Rep. Res. Committee Soc. Antiq. London 32
- Wickenden, N.P. 1996, 'The Roman towns of Essex', in Bedwin, O. (ed.), *The Archaeology of Essex. Proceedings of the Writtle Conference* (Chelmsford, Essex County Council), 76–94



# Further investigation of the Iron Age and Roman Settlement at Heybridge: Excavations at 39–45 Crescent Road, 2002

**Mark Atkinson**

With contributions by Lucy Allott, Gemma Ayton, Luke Barber, Isa Benedetti-Whitton, Trista Clifford, Anna Doherty, Gwladys Monteil, Paola Ponce, Lucy Sibun and Susan Tyler

*Excavation in advance of the development of rear gardens of properties along the south side of Crescent Road recorded a relatively high density of remains, primarily of Iron Age and Roman date.*

*The results correspond well with those of previous excavations in the vicinity, particularly Elms Farm directly to the south and Langford Road to the north-west, and provide insights into the nature, date and intensity of land use activities on the perceived northern periphery of the extensive Late Iron Age and Roman settlement at Heybridge.*

*The earlier Iron Age occupation remains represent a new dimension to our understanding, perhaps suggesting that the origins of the known settlement at Heybridge should be pushed back as far as the Early to Middle Iron Age. The Roman remains further elucidate the agricultural nature of land use beyond the settlement. Despite being located close to the site of important Early Saxon occupation remains found in 1972, very few further remains of this period were encountered.*

## INTRODUCTION

The site lies in an area of archaeological sensitivity within the known extent of the important Late Iron Age, Roman and Early Saxon settlement at Heybridge. Trial trenching evaluation in 2001, then subsequent open area excavation in 2002, was carried out by the former Essex County Council Field Archaeology Unit within the amalgamated rear gardens of 39–45 Crescent Road in advance of their residential development. A watching brief was later undertaken following the demolition of No. 41 and the formation of a new driveway into the site at the Crescent Road frontage.

The area surrounding the site is now also covered by modern housing development. This includes Elms Farm to the immediate south, which was the focus of a major excavation in 1993–1995 (Atkinson and Preston 2015a and b). The c. 1500sq m site was located within the amalgamated rear portions of the gardens of 39–45 Crescent Road (NGR TL 84917 08226) and had hitherto escaped modern development, though was densely overgrown and subject to disturbance and intrusion by ornamental ponds. Located on fairly even ground at an approximate elevation of 4.5m AOD, the site sloped down slightly to the south toward an active watercourse that marked its rear, southern, boundary. Topsoil was 0.4–0.7m thick and, at the south end of the site, overlay an alluvium deposit up to 0.25m thick which itself overlay natural gravel. Beyond the excavation, immediately to the south, there is a step down in the gravel terracing. South of the gravel terrace edge an east to west running palaeochannel had been previously identified during excavation at the Elms Farm site (Atkinson and Preston 1998, 91; 2015a, 1). These topographic features are important to the consideration of this site.

## ARCHAEOLOGICAL BACKGROUND

Heybridge has a record of settlement from prehistoric times onwards, including Neolithic and Bronze Age occupation (EHER 18773), but is particularly rich in Late Iron Age, Roman and Early Saxon remains (Figs 1 and 2). To

the immediate east of the site, at 35 Crescent Road, a small excavation in 1967 revealed material thought to be associated with a Roman ditch (Wickenden 1986, 59). Another larger site, slightly further to the east and excavated in 1972, identified remains of prehistoric, Romano-British, Saxon and post-medieval date (Drury and Wickenden 1982; Wickenden 1986). Further east again, an evaluation and a watching brief at Holloway Road in 1993 recorded further Roman remains (Timby 1993; Barber 1994). To the south and west, at Elms Farm, excavations in 1993–1995 investigated prehistoric land use and a substantial portion of Late Iron Age to Early Saxon settlement and its immediate hinterland over a c. 18ha area (Atkinson and Preston 1998; 2001; 2015a and b). The settlement peripheries were further investigated at Langford Road, to the north-west in 1994 (Langton and Holbrook 1997) and at 48 Crescent Road to the north in 2007 (Hogan and House 2007). Nearby findspots include a burial group of three 1st- or 2nd-century ceramic vessels found at Crescent Road in 1913 (EHER 7799) and a Roman jar from Crescent Road, which was donated to Colchester Museum in 1965 (EHER 7810). Since this excavation a number of other investigations have been undertaken further afield in Heybridge (*e.g.* Oak Tree Meadow, Barker 2005; Heybridge Hall, Brooks and Holloway 2007; Heybridge Chalet Site, Newton 2008), and most recently in close proximity at Nos 15 (Brooks 2015) and 17–21 Crescent Road (Hanson 2014), but such work is only made reference to where of direct relevance to the interpretation and understanding of the Crescent Road remains.

## THE EXCAVATION

Based upon the results of the evaluation, a broadly square excavation area of c. 1500sq m extent was positioned across the rear of the gardens, much of that part immediately behind Nos 39 and 41 Crescent Road being found to be disturbed or else lacking in remains. Between 0.4–0.7m of topsoil was removed to reveal a high density of archaeological features cut into the underlying natural gravel (Fig. 3). Comprising a dense

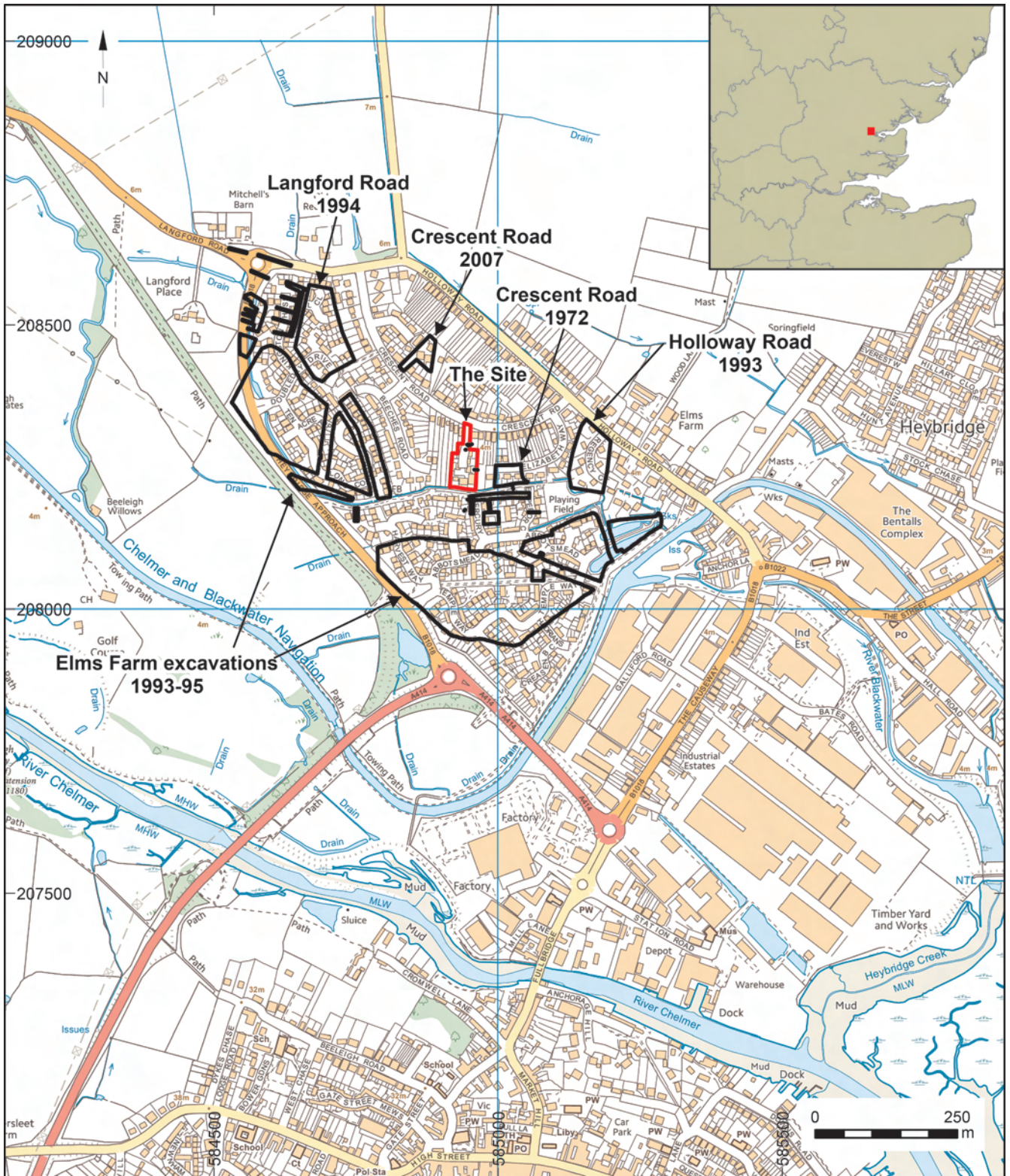


FIGURE 1: Site location plan, showing other pertinent Heybridge excavation sites  
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incidence of ditches, gullies, pits and post-holes, supplemented by two hearths/ovens, a well and a few layers, only a modest level of intercutting and stratigraphic complexity was exhibited. Excluding post-medieval and modern remains, seven phases of land use spanning the late prehistoric to potentially Early Saxon periods are defined and described below and includes the small quantity of remains identified during the subsequent watching brief toward the road frontage.

**Phase 1: Middle to Late Bronze Age**

The earliest demonstrative land use within the site dates to the Bronze Age (Fig. 4). The presence of a single, probable cremation burial [79], albeit truncated, suggests mortuary use of the landscape in the Late Bronze Age. Originally a circular cut of c.0.5m diameter, 0.16m-deep pit [79] contained part of a substantial urn [81] filled with a dark grey-brown silt [82] from which no cremated bone was retrieved. No ring-ditch remains

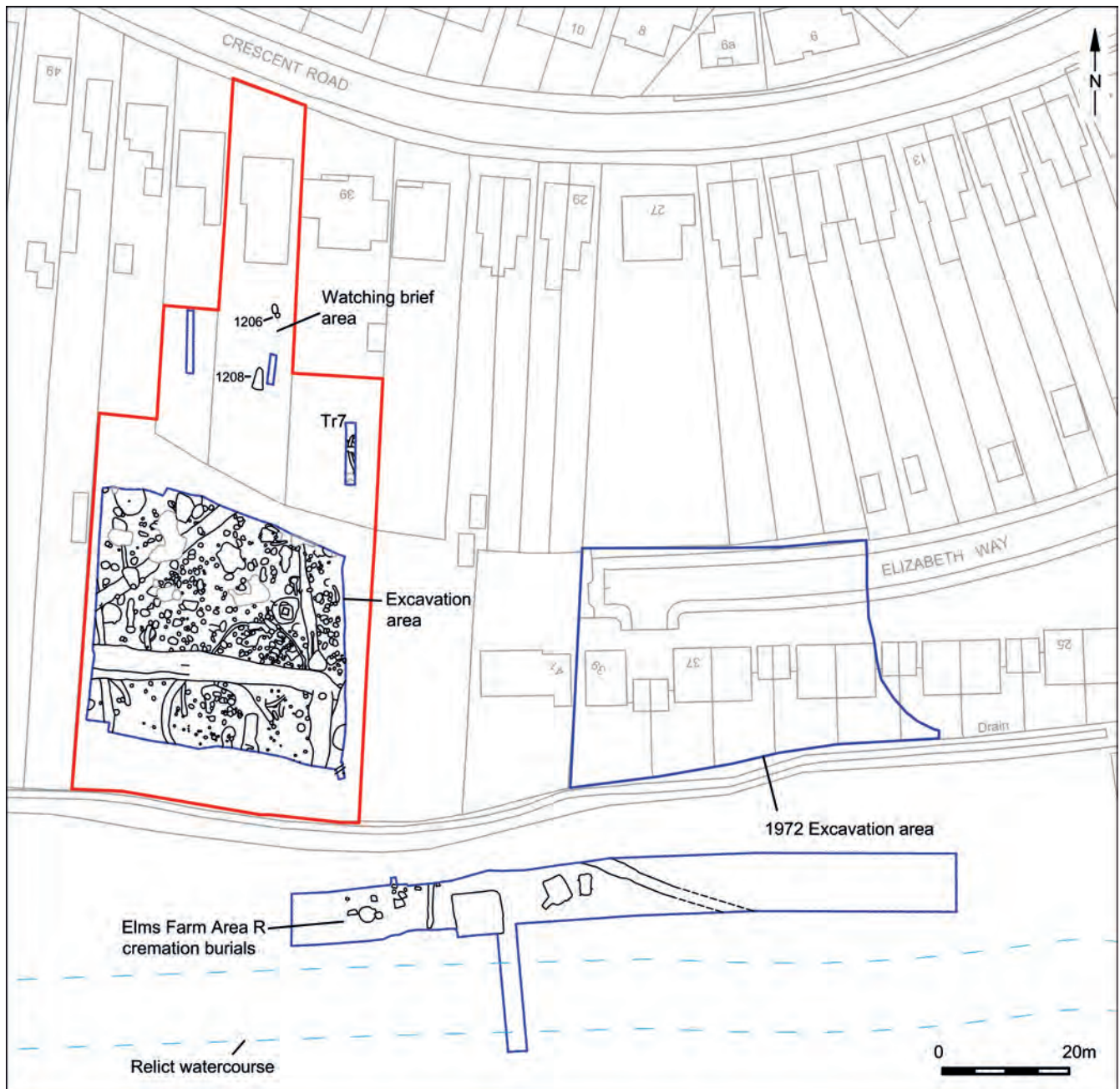


FIGURE 2: Site location and extents in relation to 1972 Crescent Road and Elms Farm Area R excavations  
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were identified around this burial and, although it should be borne in mind that its vicinity was impacted by modern disturbance, it is assumed that it was a simple interment without an enclosure or appreciable earthwork. It is conceded that these remains could instead constitute a placed deposit.

Elsewhere within the site, Middle to Late Bronze Age pit [315] may have been broadly contemporary and either constituted domestic or, perhaps, ritual deposition taking place amongst or adjacent to burial activity. The oval pit [315] was c.1.0m by 0.6m and 0.36m deep, its single silty gravel fill containing a small quantity of pottery sherds only. Other small pits broadly dated as later prehistoric may well also relate to Bronze Age land use, as hinted by pit [273] containing forty-four fragments of burnt flint as well as a single pottery sherd. A further, Bronze Age or Early Iron Age, pit [1208] was recorded during the watching brief in the north end of the site (Fig. 2).

**Phase 2: Early to Middle Iron Age**

The Early to Middle Iron Age remains are distinctly more occupation-related in nature, with both pits and post-holes closely associated with the remains of three dwellings (Fig. 4). Ring-ditches define either the wall foundation or eaves-drip gullies of at least three, possibly four, roundhouses, Buildings 1–4 (B1–B4).

*Roundhouse B1*

The most complete of the three, roundhouse B1 was 13m in diameter, slightly irregular and with a possible doorway on its north side. Its narrow gully was filled with a single deposit of dark grey-brown silty sand and gravel, from which only a single pottery sherd was recovered from the fill of excavated segment [790]. Only a single internal post-hole, [973], can be confidently accorded an Iron Age date and be judged to be

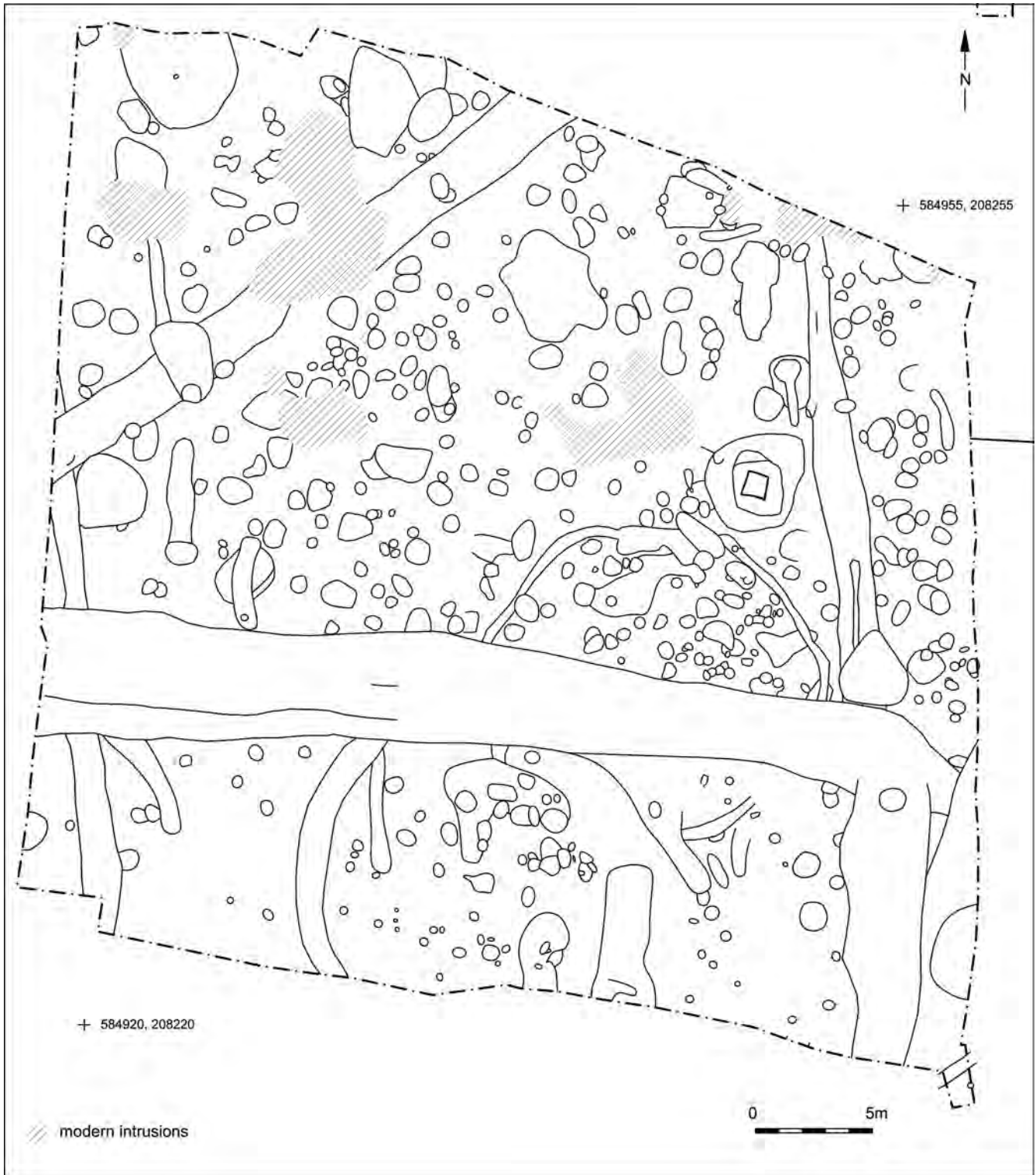


FIGURE 3: Site plan: all features

contemporary with the roundhouse, being truncated by the B2 gully.

*Roundhouse B2*

Roundhouse B2 was delineated by a more substantial ring-ditch, but its south side extended beyond the limit of excavation and the north was removed by a later ditch. It had an uncertain intercutting relationship with B1, though is likely to have been the later of the two. Approximately 14m in diameter, the east

side is irregular and may suggest a doorway positioned on this side. Some 0.9–1.3m wide and 0.2–0.5m deep, the fill of this ring-ditch yielded small quantities of Early to Middle Iron Age pottery sherds from three of its six excavated segments, [933, 975 and 988]. Seven post-holes or small pits of identifiably Iron Age date, [887, 954, 956, 986, 1135, 1137 and 1158], lie within the roundhouse interior. Many more similar but undated features also lie within B2, but show no meaningful uniformity or patterning. Feature [1053] located at the centre

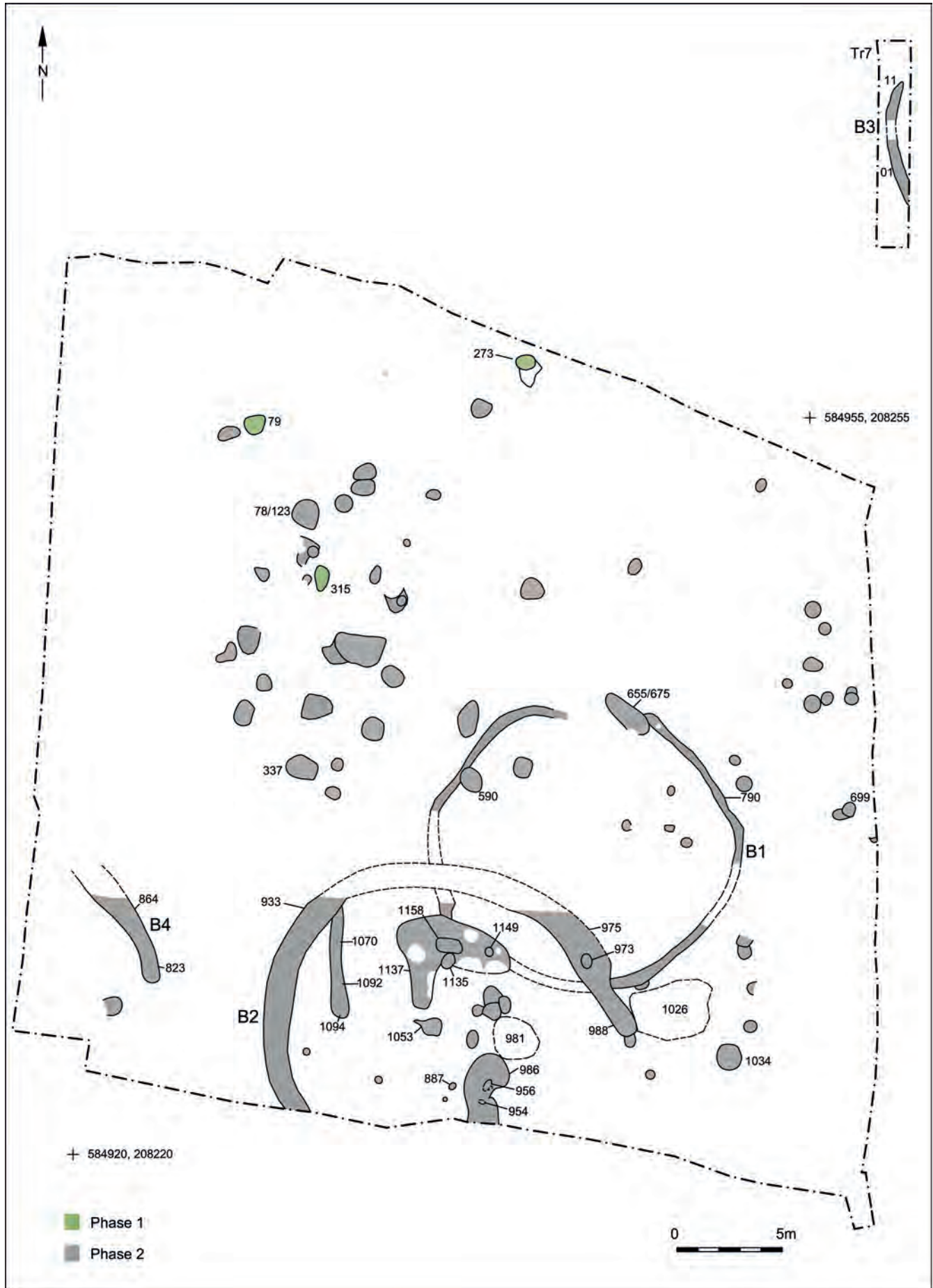


FIGURE 4: Site plan: Phase 1 and 2 Late Prehistoric features



of the roundhouse interior was judged to be a natural feature in the field but could perhaps instead be regarded as the foundation for a central roof support.

#### *Roundhouse B3*

Only exposed and investigated within evaluation Trench 7, this narrow arcing gully investigated in segments [1] and [11] is interpreted as a third roundhouse, of estimated 10m diameter. Its single fill [2] contained only two sherds of probably Iron Age pottery. Nothing can be discerned about its internal content or relationship with surrounding contemporary remains.

#### *Roundhouse B4*

A further short fragment of curving gully/ditch to the west of B2, similarly truncated by the same ditch to the north, may hint at the presence of a fourth roundhouse. If indeed from another such building, c.0.8m wide and 0.12m deep cut [823/864], it might be construed to have been of similar size and carefully positioned alongside B2, perhaps even with a similarly located east doorway. The fills of segments [823] and [864] contained modest quantities of Middle Iron Age pottery sherds.

#### *Other features*

Outside the roundhouses, sixty-four post-holes or small pits are of identifiably Early to Middle Iron Age date. While most contained only small quantities of pottery of broadly Early to Middle Iron Age date, a few pits are noteworthy for their relative abundance; pit [337] yielded seventy-six sherds, pit [1034] fifty sherds and post-hole [699] eighteen sherds deriving from a single Early Iron Age vessel. Pit [78/123] contained seventy-one sherds of a briquetage vessel. Many of these pits are distinctly Early Iron Age, some perhaps even with hints of a Late Bronze Age tradition to their ceramic content. Distributed across the excavated area, they display no meaningful patterning or function however. A further eleven small pits and/or post-holes can only be determined as broadly 'prehistoric'. While at least some likely relate to this Phase 2 land use, they add nothing to its understanding and are not considered further here.

Linear gully [1070/1092/1094] predates the B2 roundhouse. Truncated by its ring-ditch and further removed by a later ditch at its north end, this gully was in excess of 5.3m long by 0.48–0.70m wide and 0.16–0.35m deep—broadening and deepening toward its southern terminal. No finds were retrieved from its single fill in segment [1070]. Located c.4.5m east of B1, it is likely that this gully was associated with it, perhaps denoting a fence or a drain heading downslope toward the nearby watercourse.

Layer [981/1026] was a grey-brown silty gravelly sand of uncertain extents but surviving across much of the southeast corner of the site (not illustrated). Cut by roundhouse gully B2 and features of later phases, it is possible that it represented an occupation deposit or a remnant soil associated with, and bounded by, roundhouse B1 and gully [1070/1092/1094]. This said, it lacked artefact content indicative of such origin and no archaeological features were found below it.

Few discrete features cut, and therefore post-date, the roundhouse gullies/ditches. Fewer still can be identified to be of Iron Age date. Elongated pit [655/675] cut the eastern side of the possible north doorway of roundhouse B1, oval pit [590]

cut its west, and post-hole [1149] cut its southwest part; all containing apparently Middle Iron Age pottery.

#### **Phase 3: Late Iron Age**

Features and artefacts of Late Iron Age date are scarce within the excavated area (Fig. 5). In the absence of land boundaries, and with indicators of occupation limited to only a few pits, it appears that settlement had ceased and that this location reverted to unused or perhaps cultivated land.

Small pits [821] and [877], the latter incidentally in the interior of former roundhouse B2, contained only small quantities of diagnostically Late Iron Age pottery. Pit [22], located in the interior of B1, was an oval cut 1.0m long by 0.6m wide and 0.08m deep, truncated at its south end. In contrast to surrounding features, its fill [21] was a dark grey silty gravel containing common burnt pebbles, occasional charcoal flecks, fired clay and burnt bone fragments and a few sherds of pottery. Probably burnt or melted copper-alloy fragments (RFs <36–7>), including a dome-headed stud, were retrieved from its surface. Although perhaps simply a pit containing burnt debris, feature [22] is alternatively speculated to have possibly been either a cremation-related pit or even the flue of a Late Iron Age pyre site. In this context, the copper-alloy items are interpreted as fittings of a burnt casket or box. This is further explored in relation to evidence from Elms Farm in the discussion section.

#### **Phase 4: Latest Iron Age to Early Roman**

In the mid-1st century AD an enclosure system was imposed. Parallel ditches, roughly north to south aligned, extended down each side of the excavated area toward the watercourse (Fig. 5). The presence of pits, a crop processing structure, a kiln and a single cremation burial demonstrate activities undertaken in the perceived rear of the land plots defined by the enclosure system.

#### *Enclosure ditches*

The western boundary, defined by ditch [229/261/282/309/670/964], variably contained one or two fills along its length from which small quantities of Late Iron Age and Early Roman pottery were recovered. The eastern boundary was recut, ditch [325/383/491/630/666] becoming infilled and directly replaced with [323/381/633/672] of similar proportions, diverging slightly at its south end, much of which had been removed by a later ditch. Neither phase of this boundary contained significant quantities of cultural material, just small amounts of pottery and tile and occasional bone fragments that at least indicate they were filled in the Early Roman period.

These two relatively slight boundaries define the east to west extents of a probably long and relatively narrow land unit, c.31m wide, that ran down to the relict watercourse. They also imply the existence of further land units either side, though too little of their interiors were exposed within the excavation to discern the content and use of these entities.

#### *Other features*

The strip plot defined within the excavated area contained a modest quantity of pits of 2nd-century date [235/297, 385/493, 497, 875 and 1055]. Pit [852] was the only contemporary feature present west of the strip plot, while no pits of identifiably



latest Iron Age/Early Roman date lay to its east. These generally medium- to large-sized rounded pits were positioned in peripheral locations within the strip plots, alongside the boundary ditches. Beyond containing small assemblages of pottery and tile, none of these pits inform the nature of activities undertaken within the land entities in which they occur, although it is suggested that several fragmentary but complete, or near complete, ceramic vessels in pit [1055] might constitute a closure deposit (see Monteil below).

Minor north to south ditch [97/127] may denote a subdivision down the west side of the strip plot but, being truncated at both ends by later features and disturbance, its full extent is unknown. More informative of activity within

the plot was the presence of two structures along its eastern boundary. Apparent drying floor remains [708] comprised a shallow keyhole-shaped cut, the southern end of which contained the remnants of a tile-built flue [665] (Fig. 6). Both construction backfill and infill of the redundant structure contained only broadly-dated Roman pottery. Its alignment upon the eastern plot boundary is taken as evidence of its likely contemporaneity.

Pit [385], probably once largely infilled, was seemingly reused as the location of a kiln structure [488]. Constructed within shallow cut [495] into the top of the earlier pit fill, the base of a clay-built structure survived. Again similarly aligned on the adjacent eastern plot boundary ditch, this

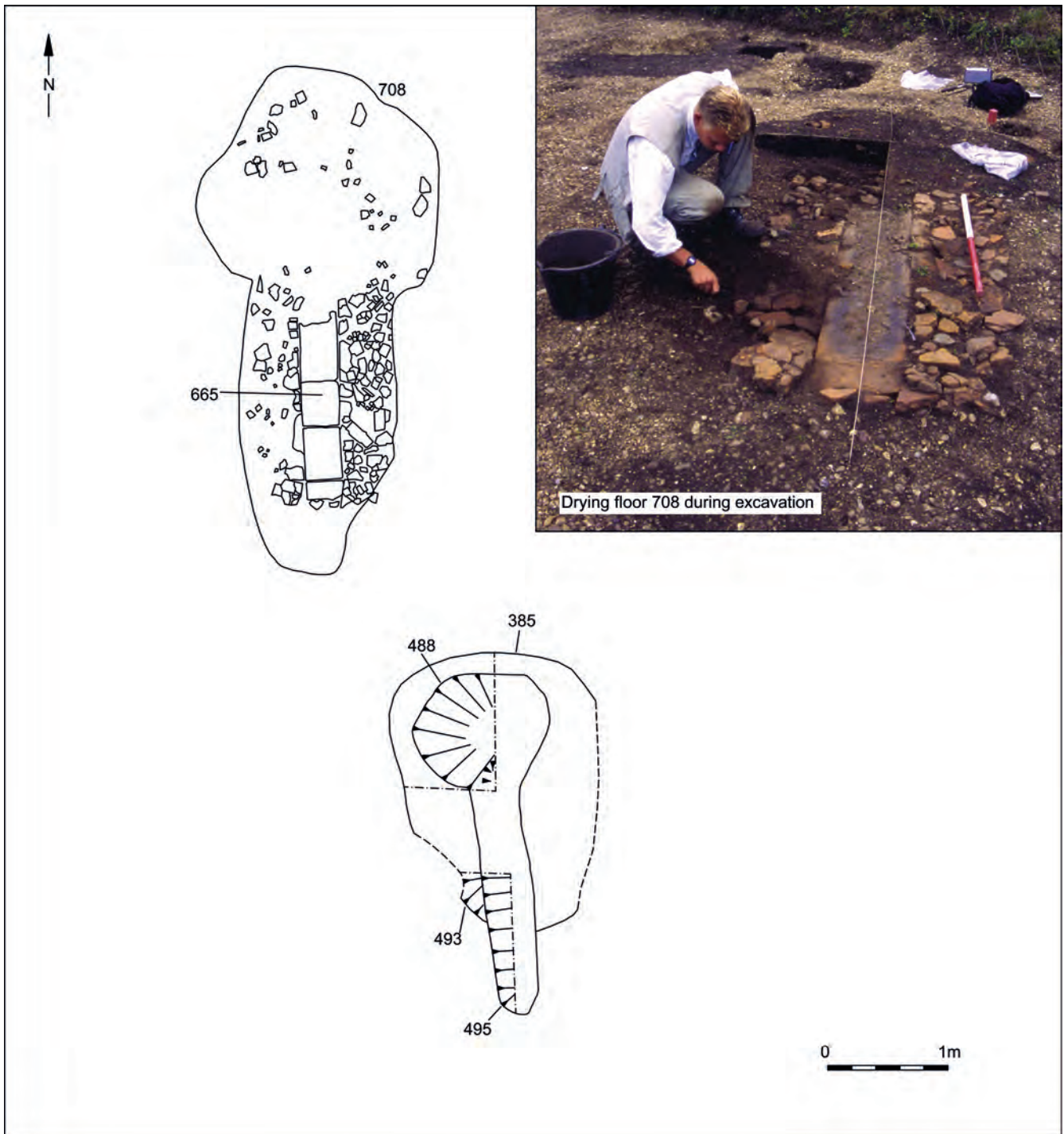


FIGURE 6: Drying floor [708] and kiln [488]

structure comprised an oval chamber with a long and slender flue extending from its south, measuring overall c.1.5m wide and 3.0m long. Its grey-black sandy silt fill [388] included charcoal and infill debris of tile, glass and pottery, the latter indicating its abandonment sometime in the 2nd century. Fragments of daub may have derived from its demolished superstructure.

In contrast to the kiln and drying floor, a single cremation burial [52] was located alongside the western plot boundary. The grave pit was just large enough to accommodate a large globular urn [47], much of which had survived due to the relative depth of interment (Fig. 7). The upper half of this primary vessel had been truncated, but its contents—a beaker, flask and samian platter—remained intact and it is likely that the 930g of cremated human bone recovered from the urn's infill constitutes the entire remains interred. It is probable that the platter served as a lid. A mid-2nd-century date is likely for this burial.

**Phase 5: Middle Roman**

By the later 2nd/3rd century the narrow strip plot was replaced, a more substantial and differently aligned ditch cutting across its western boundary and its interior (Fig. 8).

*Enclosure ditches*

Ditch [30/73/129/133/146/276/295] ran across the northwest corner of the excavation area. Where its full width was investigated, in segments [73] and [133], it was 2.1–2.3m wide and 0.74–0.78m deep, with fairly steep sides and a rounded base. Containing fill sequences of three or four deposits, the ditch appears to have had a relatively complex life, though no convincing recuts were apparent. Filling in the 3rd century, it accumulated only small quantities of cultural material, mostly pottery and tile. The ditch clearly cut infilled western plot boundary ditch [229 *et al.*], demonstrating that this had passed out of use either prior to or during the 3rd century. Projecting its alignment further northeast, it is tempting to regard what was identified as a modern, and consequently unexcavated, cut feature recorded in the northern end of evaluation Trench 7 as its continuation.

The only linear feature to share this distinctive north-east to south-west alignment was seemingly minor ditch [1078] encountered in the very southeast corner of the excavated area, separated from ditch [30 *et al.*] by a distance of c.42m. As only a very small portion of this 0.56m wide and 0.2m deep feature was exposed and investigated its nature and reliability is admittedly uncertain, though its fill did contain mid-2nd-century pottery.

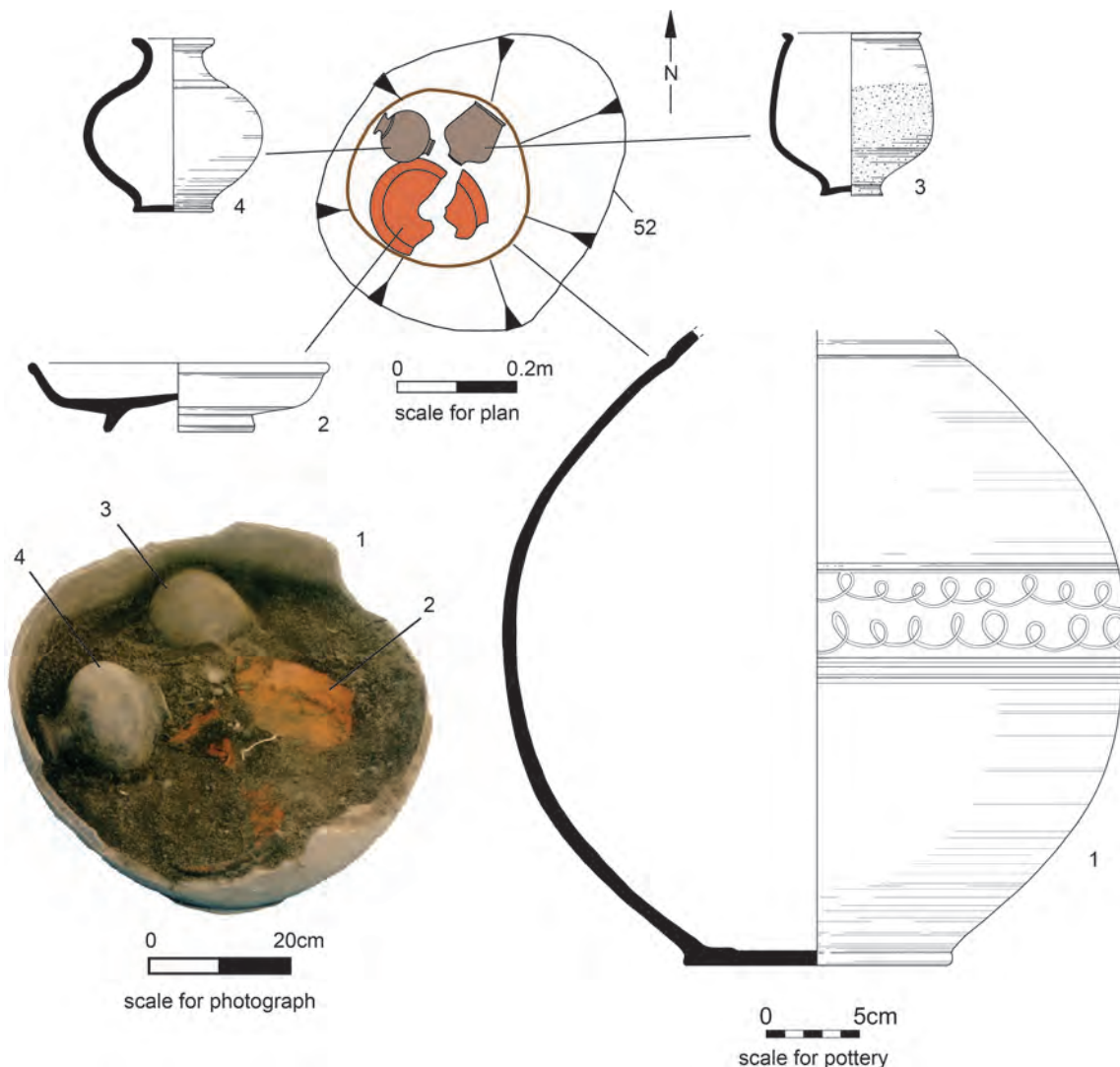


FIGURE 7: Cremation burial [52]

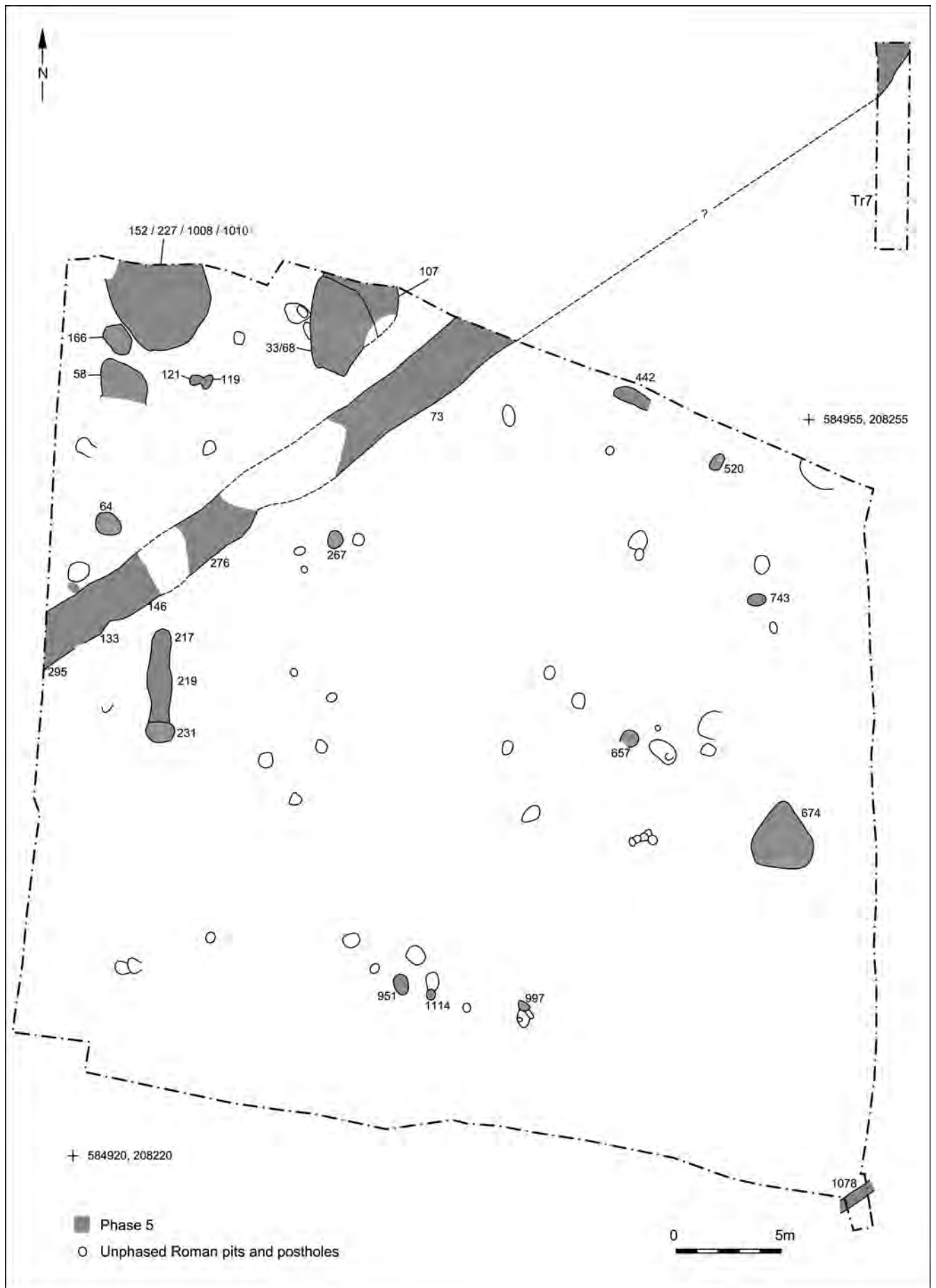


FIGURE 8: Site plan: Phase 5 Mid Roman features

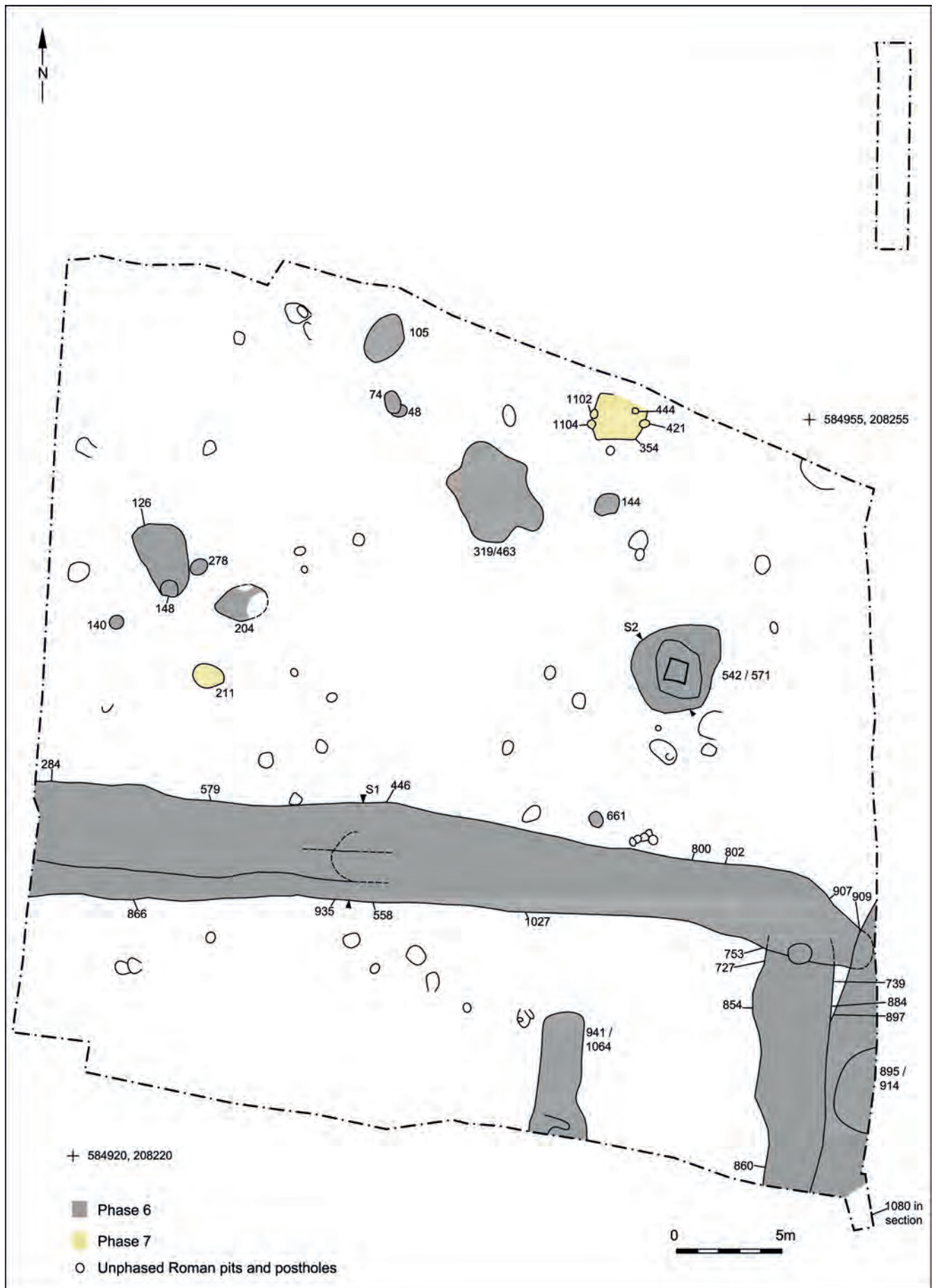


FIGURE 9: Site plan: Phases 6 and 7 Late Roman and Early Saxon features

*Other features*

The area investigated north of this substantial north-east to south-west boundary ditch was occupied only by a quantity of diagnostically mid Roman pits [64], [33/68/1197], [58], [107], [119], [152/227/1008/1010] and [166]. The larger sub-rectangular pits [33/68], [58], [107] and [152/227/1008/1010] contained conspicuously larger and diverse assemblages of artefacts than either the adjacent ditch or comparable features of any preceding phase. Substantial quantities of 3rd-century pottery and tile were supplemented by smaller, but still significant, quantities of iron nails, baked clay, *opus signinum*, window glass, quern fragments and animal bone. Of particular note, a decorated copper-alloy plaque RF26 (Plate 2), probably once embellishment to a dagger scabbard, was retrieved from pit segment [68]. The remainder were small pits or post-holes which generally displayed the same pattern of increased cultural material in their fills.

South of the land division, a perceived lesser density of further pits occupied the land between it and smaller ditch [1078], or else the relict watercourse. Irregular large pit [674] was cut into the infilled Phase 4 eastern boundary ditch. The remainder were scattered small pits or post-holes [231, 267, 442, 520, 657, 743, 951, 997 and 1114], of which [743] also cut the former eastern boundary. While pit [674] contained larger quantities of pottery, tile and animal bone, reminiscent of the northern pits of this phase, the smaller features generally contained much reduced assemblages in terms of quantity and range—though this may at least in part be a reflection of their small size.

The only other identifiably mid Roman feature was short, broad, gully [217/219]. No more than c.5m long, this 0.8–1.1m wide and 0.18m deep gully was filled with dark grey gravelly silt which contained 3rd-century pottery and Roman tile fragments. Running at marked variance to the alignment of the major Phase 5 ditch, and cut by mid Roman pit [231] at its south end, the function of this short gully/ditch is unclear; indeed, were it not for the date of its pottery content, [217/219] could be construed to be an interrupted continuation of Phase 4 gully [97/127] to its north.

**Phase 6: Late Roman**

A further episode of reorganisation, perhaps taking place in the 4th century, is marked by the imposition of a particularly

substantial east to west ditch across the southern part of the excavated area (Fig. 9).

*Enclosure ditches*

While not demonstrated to cut mid Roman ditch [30 *et al.*], a large east to west ditched boundary now ran across the gravel terrace above, and parallel with, the relict watercourse and is presumed to disrupt and replace the preceding land division. Its earliest manifestation, [45/284/446/558/579/615/753/800/802/866/907/935/1027], was 5.3m wide and 1.5m deep at its west end, narrowing eastwards. Multiple silty gravel fills, with a final deposit of very dark brown/black silt, contained modest quantities of pottery and tile considering its relatively large size. Other items such as quernstone, *opus signinum*, unworked stone, a glass vessel sherd and occasional animal bone were present, though its metalwork component was conspicuously low, being restricted to the retrieval of a single iron nail.

It was seemingly truncated by one or more re-cutting episodes (Fig. 10), the clearest represented by narrower and shallower ditch [938] cut into its top. This 1.4m wide and 0.3m deep recut was only traced across the western part of the boundary. Like its predecessor, it was filled with silty gravel overlain by dark brown silt that contained quantities of pottery, tile and quernstone.

The narrowing plan of the eastern part of this boundary suggests that it perhaps terminated at the edge of excavation or else narrowed as it turned southward; however, this was obscured by later features. If the postulated eastern terminal is correct, north to south aligned ditch [897/909/928] may have been positioned in relation to it. Only partially exposed in the south-east corner of the excavation area, and not particularly well understood, this boundary cut the infilled ?terminal but perhaps co-existed with its manifestation as a recut. The replacement of the north to south ditch, by ditch [727/739/854/860/899], suggests the perpetuation of both boundary alignments. From this, the existence of a further, eastern, defined land unit can perhaps be inferred. In its latter stages, the recut east to west boundary evidently drained toward, or directly into, the relict watercourse, with ditch [727/739/854/860/899] narrowing southwards toward it.

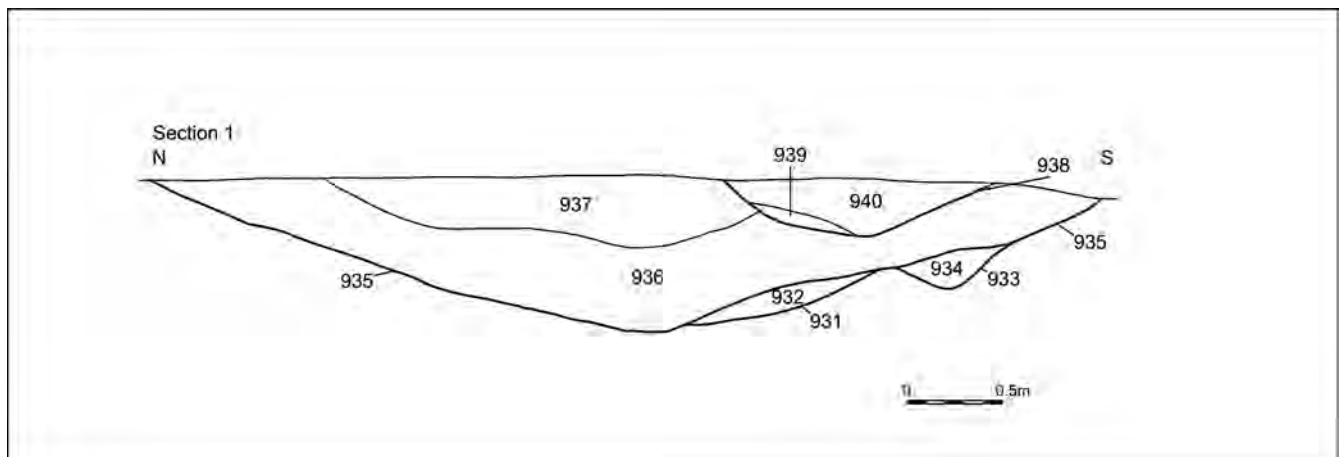


FIGURE 10: Section drawing showing successive re-cutting of ditch [558] *et al.*

*Other features*

The Late Roman ditches described above, define varying portions of three land entities. The majority of land use activity appears to be located north of the major east to west boundary, where a well and a scatter of both large and small pits are present.

Substantial construction cut [542/571] contained a well shaft [705] of oak plank construction c.1.0m square (Fig. 11). Lower construction backfill [572/706] around the well lining was a clay deposit that graded upwards from mid blue grey to mid brown in colour; no doubt a reflection of waterlogging and perhaps the more recent lowering of the water table. In contrast, the upper backfill [543/573] within the splayed top of the construction cut was a brown-grey silty gravel, perhaps indicating that the contemporary water level in the well did not rise this high so a waterproofing clay fill was not necessary. These construction deposits contained only small quantities of Roman pottery, tile, *opus signinum*, and a fragment of window glass; recovered pottery from the upper deposit is of 3rd-century date.

Much of the lowest three planked courses of the well lining survived, amounting to a height of c.0.7m, its box construction featuring single dovetail jointing and the individual planks displaying saw and adze/chisel marks. The lowest fill within this shaft, dark grey-brown peat [1173] included abundant organic matter and is considered a probable use, or else immediate disuse, accumulation. Its 0.3m thickness, being waterlogged, preserved significant quantities of butchered animal bone, wood fragments, shoe leather, and plant remains comprising primarily of weeds associated with cultivated and/or waste ground, as well as pottery and tile. The neck of a face-flask flagon sherd present amongst the pottery assemblage may hint at a votive or structured aspect to this deposit (Plate 1). A similar thickness of overlying dark grey-brown sandy silt [1172] is a clear disuse deposit which contained pottery, bone and tile. It was capped with a thin, 0.03m-thick, deposit of reddish grey sandy silt and gravel [1171]. The remainder of the well shaft was filled with dark brown-grey sandy silt [707] that extended higher than the surviving timbers, demonstrating

that the well lining originally extended at least to ground surface level (Fig. 11). This final well shaft fill contained large quantities of pottery and tile. The upper portion of the well displayed a typical splayed erosion cone [542], within which none of the original well structure remained. It appears that the enlarged top of the well was filled with a substantial deposit of dark brown-grey silty gravel [573], at least in part probably deriving from the erosion of the top of the well cut but also material containing pottery, tile rubble and small quantities of animal bone and iron nails. The slump and/or settling hollow [574] that formed in the top of the infilled well was finally backfilled with a dark grey-brown sandy silt that may have denoted a deliberate act of levelling of the well remains. While it is clear from the shaft fills that the well's disuse occurred by the middle of the 4th century and later accumulations in the erosion cone into the second half, it is entirely possible that its construction and early use was mid Roman though this cannot be demonstrated. No evidence for a superstructure over the well can be discerned, though two timber fragments that were clearly not planks were retrieved from the lowest shaft fill [1173].

Elsewhere north of the east to west boundary, Late Roman pits constitute the only other activity evident. Large irregular-shaped pit [319/463] contained very substantial quantities of early/mid 4th-century pottery and tile, along with ironwork including nineteen nails and a knife blade (RF21), and smaller quantities of *opus signinum*, window glass, quernstone, animal bone and oyster shell. Moderately-sized oval pits [105], [126], [144], [204] contained similar, but smaller, assemblages of cultural material, pit [105] again including a sherd of window glass. Some slight connotations of ritual behaviour might be discerned in the inclusion of the coins in pit [144] and of face pot fragments in [105] and [204] (cf. Elms Farm: Atkinson and Preston 2015a, 108). The remaining, small and rounded, pits of this phase of land use, [48], [74], [140], [148], [278] and [661], contain only small quantities of pottery, tile and occasional other artefact types and are mainly phased by their stratigraphic relationships with earlier features.

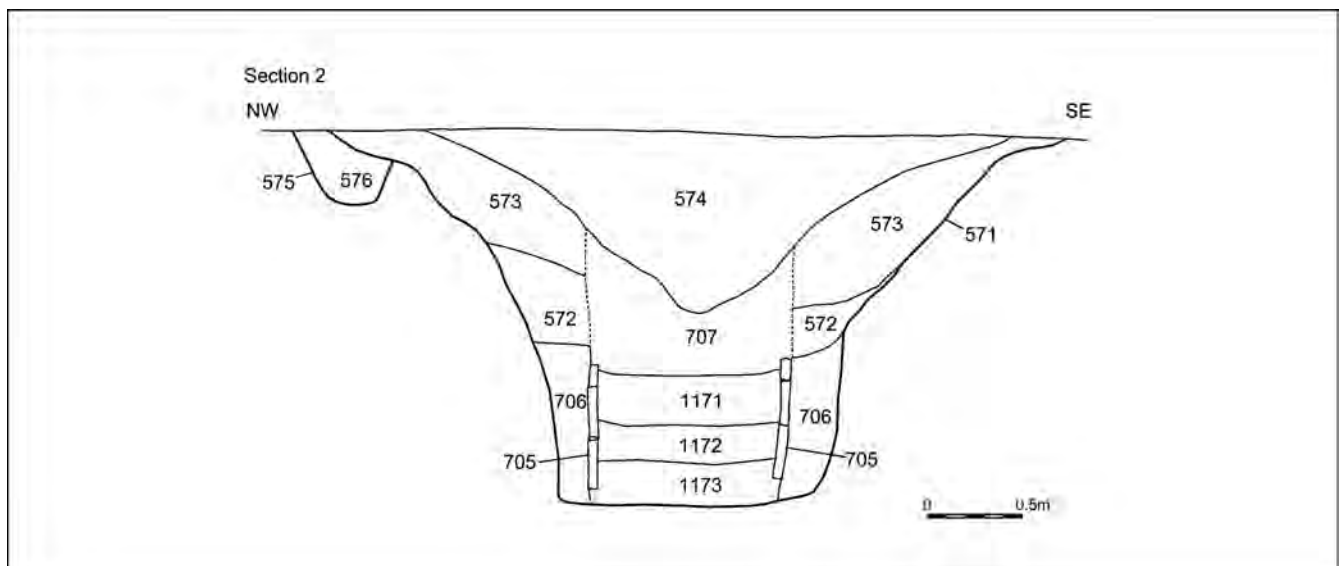


FIGURE 11: Well [571]



Identified Late Roman pits were absent to the south, within the land entity between the east to west ditch and the watercourse, and the only feature appears to be the square terminal of ditch [941/1064] which is parallel with the recut ditch return [727 *et al.*] and so is construed to be contemporary. Perhaps a subdivision down this side of this enclosure, it is assumed to have extended down to the relict watercourse.

East of the major boundary ditches, the only indication of activity is the presence of large circular pit [895/914] and pit [1080] that was only identified in section, in the south-east corner of the excavation area and both seemingly cut into infilled ditch [897/909/928].

### Unphased Roman

A scatter of small to moderately-sized pits of broadly Roman date, or later, is present across the site. These likely relate to any one of the phases of land use described above but, lacking meaningful patterning or informative artefactual content, their contribution is minimal.

### Phase 7: Early Saxon

Identifiably Early Saxon features are confined only to pits [211] and [354] within the excavation area, and perhaps a number of stake- and post-holes intercutting with the latter. The larger pit, [354], was a roughly rectangular cut *c.*2.5 × 1.7m, with a flat base, and only 0.12m deep (Fig. 12). It was recorded as cutting paired post-holes [421 and 444] and [1102 and 1104]. However, positioned at either end of the pit, it is likely that they were in fact integral and cut into its base. Post-hole [421] was recorded to contain a rammed dirty gravel packing [425] down one side. Both pit and post-holes contained a dark grey-brown silt. In addition to residual later prehistoric and Roman pottery, tile and a lead ring (RF40), the fill of pit [354] and post-hole [1102] included sherds of pottery dated to the 5th–7th centuries. It is postulated that these remains comprise a small Early Saxon structure, though a parallel has admittedly not been found elsewhere. Smaller oval pit [211] contained only a single sherd of diagnostically Early Saxon pottery in its dark grey silt fill.

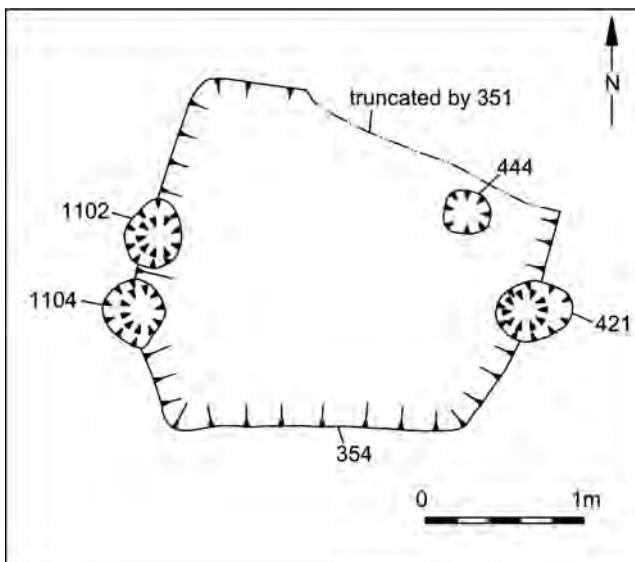


FIGURE 12: Early Saxon structure [354]

While demonstrably Early Saxon remains are confined to the two pits, seemingly mid Roman pit [152227/1008/1010] which extended off the northwest corner of the site was certainly of sufficiently large size and potentially convincing overall shape to have been a sunken-featured building. However, it lacked structural post-holes and diagnostically Saxon artefacts in its fills to suggest that its Roman artefact content was in fact residual or curated.

The wider spread of Early Saxon features is indicated by the incidence of apparent post-hole [1206] within the watching brief area toward the road frontage (Fig. 2). It must be assumed that the Early Saxon remains here are associated with those nearby at the 1972 Crescent Road and Elms Farm sites.

### Undated

Wholly undated features, lacking diagnostic artefact content or stratigraphic relationships, comprise many small pits or post-holes scattered across the site and a few gullies. The pits look little different to those of the Iron Age and Roman phases of less than 0.5m dimension, but betray no patterning to warrant their association. Short but broad and straight gully [526/583], running parallel to similar Mid Roman gully/ditch [217/219] but also perpendicular to the major Late Roman east to west boundary, could be construed to be of contemporary date with either. Slighter, probably curving, gullies [528] and [761] look more structural and reminiscent of the remains of screening fences around working areas. Their close proximities to drying floor [708] and oven/kiln [488/495] may therefore be apposite.

### FINDS AND ENVIRONMENTAL REMAINS

#### Worked and Burnt Flint by Karine Le Hégarat

Fifty-eight pieces of struck flint weighing 512g, as well as a flint hammerstone (212g), were recovered together with 118 fragments of unworked burnt flint weighing 2,741g. The assemblage is summarised here, with a full report held in the deposited archive.

The struck flint consists principally of un-retouched pieces or modified material, which is not closely datable. Nonetheless, based on technological and morphological grounds, the majority of the artefacts are likely to be Mesolithic, Neolithic or Early Bronze Age in date, although later prehistoric activity may also be represented. No archaeological features that predate the Middle Bronze Age were identified during the excavation, suggesting that a large proportion of the flintwork consists of re-deposited material. The flint material was thinly spread over the site with no features producing more than five artefacts, and the majority of contexts contained just a single piece of flint each. Truncated Middle/Late Bronze Age cremation burial [79] produced a burnt broken flake. It is chronologically undiagnostic but may represent associated pyre debris. The remaining material derives from unstratified contexts, from three undated archaeological features and deposits, or from Iron Age (principally Middle Iron Age) or later features, and can be regarded as predominantly re-deposited material.

Five blades and bladelets indicate a Mesolithic or Early Neolithic date. Otherwise the flint assemblage comprises a large proportion of flakes which are technologically poor. They are largely small. Several thin flakes with platform abrasions

could be Mesolithic or Neolithic in date, but the majority of flakes exhibit plain platforms and butts with minimal or no preparation. None of these are closely datable, but they are consistent with a flake-orientated industry dating to the Neolithic/Early Bronze Age. A small flake struck from a ground implement was recovered from the fill of Roman pit [105]. It almost certainly derives from a Neolithic polished tool.

The unworked burnt flint fragments were thinly spread across the site, coming from thirty-eight contexts dating from the prehistoric to modern periods. Phase 1 Bronze Age deposits (in pits [273] and [1208]) account for 38% of fragments by count, with the fill of [273] containing forty-four pieces; the largest quantity for any individual feature on site. Much of the post-Bronze Age burnt flint, like the worked flint, is likely to have been residual. However, given the presence of both a drying floor and kiln, at least some of the material might be contemporary with the Roman features it occurs in; being the result of incidental burning.

This worked and burnt flint assemblage is consistent with those from excavations undertaken in the close vicinity of the site; 1972 Crescent Road/Elizabeth Way (Wickenden 1986), Langford Road (Langton and Holbrook 1997) and Elms Farm (Atkinson and Preston 2001), these producing Mesolithic, Neolithic and Bronze Age flint assemblages.

#### Prehistoric Pottery by Anna Doherty

A moderate-sized assemblage of prehistoric pottery from Crescent Road (quantified by stratigraphic phase in Table 1) ranges from Middle/Late Bronze Age to Middle Iron Age in date. The pottery was recorded using a site-specific fabric type series in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 2010) and quantified by sherd count, weight and Estimated Vessel Number (ENV). The detailed fabric descriptions are available in the archive whilst a summary quantification of fabric groupings is provided in the text and in Table 2.

#### Phase 1: Middle to Late Bronze Age

The most significant ceramic evidence from Phase 1 comprises a substantial part of the base and lower wall from a jar in a medium coarse, grog-tempered fabric with sparse flint (not illustrated; archive fabric GRFL1). The vessel is thought to have originally been placed in pit [79], although much of it was redeposited in a directly intercutting Phase 2 pit, [83]. It is tentatively interpreted as a truncated cremation vessel of

Middle/Late Bronze Age date, although no associated human bone or charcoal was noted. It must also be stated that the dating of the vessel itself is ambiguous. Medium coarse grog-with-flint vessels are perhaps most closely associated with the Late Neolithic/Early Bronze Age ceramic tradition in Essex, though the profile, relatively thin-walled nature, unoxidised firing and lack of decoration seem much more in keeping with a later prehistoric date.

Coarse grog-tempered wares, including some which contain flint, are frequently associated with Middle Bronze Age pottery in Ardleigh style Deverel-Rimbury (DR) assemblages from north-east Essex but are much less common in Lower Thames style groups from the central and southern part of the county (Brown 1995, 127). Later DR assemblages from both regions tend to be entirely flint-tempered; all of the Middle/Late Bronze Age pottery from Elms Farm, for example—including two *in situ* cremation vessels—is flint-tempered (Brown 2001, catalogue nos: 16.47–16.55). Deverel-Rimbury vessels are also typically substantially thicker-walled than that from [79], whose lower profile is more akin to a c.late 2nd- to earlier 1st-millennium jar form. Late Bronze Age post-Deverel-Rimbury (PDR) pottery is not typically associated with grog-tempering in the locale of the site (Brown 1986, 31), but grog-and-flint fabrics are not unheard of in transitional Middle/Late Bronze Age or early plain ware PDR assemblages from slightly further afield, particularly in East Kent (Jones 2006, 19; Morris 2006, 80).

The remainder of pottery from features assigned to Phase 1 comprises c.30 bodysherds in non-sandy flint-tempered fabrics ranging from medium to very coarse in texture (archive fabric groups FLIN2, FLIN3 and FLIN4). These were found in Phase 1 pits in the central part of the site. Such fabrics are fairly typical of late DR/earlier PDR assemblages and are comparable to Middle/Late Bronze Age wares from Elms Farm (Brown 2001); however, given the very small quantities found in each individual feature, it is possible that some or all of this material is residual.

#### Phase 2: Early to Middle Iron Age

Much of the Phase 2 assemblage by weight is made up by another *in situ* vessel, from pit [123], which is also of slightly ambiguous date (not illustrated). Despite being heavily truncated above the mid body, the surviving part of the vessel weighs about 7kg. It has a very thick-walled tub-like profile of large diameter and is made in an extremely coarse

Phase	Sherd count	Weight (g)	ENV
Phase 1	38	872	19
Phase 2:	771	17913	401
<i>Phase 2: Earliest to EIA</i>	197	8485	72
<i>Phase 2: E/MIA</i>	220	4091	160
<i>Phase 2: MIA</i>	354	5337	169
Unphased prehistoric	57	529	42
Unstratified or residual in later features	208	2620	184
<b>Total</b>	<b>1074</b>	<b>21934</b>	<b>646</b>

TABLE 1: Quantification of prehistoric pottery by stratigraphic phase

flint-tempered fabric. These characteristics are perhaps most similar to Middle Bronze Age DR pottery; however, the vessel is also completely oxidised and features a thick white residue concentrated around the basal interior, strongly suggesting that it was used in salt-evaporation processes. Although substantially coarser than would be expected in normal Iron Age ceramic assemblages, briquetage vessels are frequently larger and more heavily tempered than domestic pottery. Furthermore, it was stratified with a few other fairly thin-walled bodysherds in moderately coarse flint-tempered wares which almost certainly post-date the Middle Bronze Age. Generally speaking, prehistoric salt-working evidence from Eastern England is more common on Iron Age sites, although evidence of similar Bronze Age industry is increasing (Lane and Morris 2001, 8–9; Medlycott 2011, 17). Since this feature is in a spatial grouping of similar pits belonging broadly to the period c.800–500 BC, the briquetage vessel is also tentatively assigned to this date range.

Looking at the other Iron Age pottery, it is clear that, by Phase 2, there is clearer evidence for the deliberate deposition of pottery in pits and post-holes by this period. Most features still produced modest assemblages, but some included very large fresh sherds. The earliest groups probably belong to the ‘earliest’/Early Iron Age (perhaps c.800–500 BC). About half of the fabrics are made up by non-sandy flint-tempered wares (Table 2). Most of these are medium coarse although nearly 8% (by ENV) are in very coarse wares with inclusions of c.4mm or greater and there are also some grog-with-flint fabrics, possibly representing residual Middle/Late Bronze Age pottery. The other half of the fabrics in these early groups is made up by flint-tempered wares also containing moderate coarse quartz. Within this broad fabric grouping, individual fabric types are fairly evenly split between medium coarse and much finer flint-tempering. Few forms were found in these potentially early groups, but there is an example of an undecorated weak-shouldered jar (Fig. 13.1) associated with a finger-tipped jar (Fig. 13.2). Also represented is a plain ovoid jar with finger-tipping (Fig. 13.3). These forms would be in keeping with the decorated phase of the PDR tradition although one other form, a carinated bowl with scored decoration (not illustrated) might take this material into the post-600 BC period.

An apparently slightly later group of features is probably more typical of the Early Iron Age proper or earliest part of the Middle Iron Age. In these groups non-sandy flint tempered wares reduce dramatically in frequency, and those that are present are medium coarse or fine (Table 2). Flint-tempered wares with coarse quartz matrixes remain similarly

common but non-flint-tempered quartz-rich wares, which were all but absent in earlier groups now make up nearly a third of estimated vessels. Forms are similar to those in the earlier groups, but there is a noticeable increase in the use of fingertip, fingernail and scored decoration, seen on over 15% of estimated vessels. Forms include jars with plain, closed profiles (Fig. 13.4–5), a necked jar with a finger impressed cordon (Fig. 13.6) and fingernail impression along the rim and a necked jar with finger-tipping on the shoulder (Fig. 13.7). Also represented is a necked jar with a well-defined shoulder (Fig. 13.8) associated with a jar with a long flaring rim and possible but ill-defined finger-tipping along the rim (Fig. 13.9). These fabrics and forms find good parallels in material from the 1972 Crescent Road excavation (Brown 1986, fig 15.6–21).

The third chronological grouping is probably broadly Middle Iron Age. In these groups non-sandy flint-tempered wares have reduced to such low levels that they may be entirely residual and although flint-tempered wares with quartz still appear to be current, quartz-rich fabrics are in the clear majority (Table 2). A single sherd in a glauconitic fabric was also identified. Decoration is much less common in groups of this type and most forms are jars with ovoid (Fig. 13.10), necked (Fig. 13.11) or sinuous S-profiles (Fig. 13.12). Both fabric and form characteristics are similar to the small assemblage from Langford Road, Heybridge and to the latest prehistoric material from earlier excavations at Crescent Road (Brown 1986 and 1997). Interestingly, given that high status activity was apparent in the mid/late 1st century BC in adjacent areas at Elms Farm (Atkinson and Preston 2015), there is less evidence for an overlapping Middle to Late Iron Age pottery tradition, possibly suggesting a hiatus in activity.

*Illustration Catalogue* (Fig. 13)

1. Jar with weak shoulder, Archive fabric group FLIN2, fill 591, pit 590
2. Shoulder of jar with prominent finger-tipping, Archive fabric group FLIN3, fill 591, pit 590
3. Plain ovoid jar with finger-tipping along the rim, Archive fabric group FLQU2, fill 676, pit 675
4. Plain jar of closed profile, Archive fabric group FLQU1, fill 84, pit 83
5. Large plain jar of closed profile, Archive fabric group FLQU1, fill 84, pit 83
6. Necked jar with impressed shoulder cordon and fine fingernail decoration along the rim, Archive fabric group FLQU1, fill 338, pit 337
7. Necked jar with finger-tipped shoulder, Archive fabric group QUAR2, fill 338
8. Necked jar with well-defined shoulder, Archive fabric group FLQU1, fill 974, post-hole 973
9. Jar with flaring rim and possible finger-tipping along rim-top, fill 974, post-hole 973

Fabric group	Archive fabric codes	c.800–500BC	c.500–300BC	c.300–100BC
Flint tempered (non-quartz-rich)	FLIN1, FLIN2, FLIN3, FLIN4, FLIN5	48.6%	15.6%	3.0%
Flint-tempered (quartz-rich)	FLQU1, FLQU2, FLQU3, FLQU4	48.6%	52.5%	12.4%
Grog-with-flint	GRFL1	1.4%	0.6%	0.0%
Quartz rich	QUAR1	1.4%	31.3%	84.0%
Glauconitic	GLQU1	0.0%	0.0%	0.6%
<b>Total</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

TABLE 2: Quantification of Phase 2 fabric groups by percentage of ENV

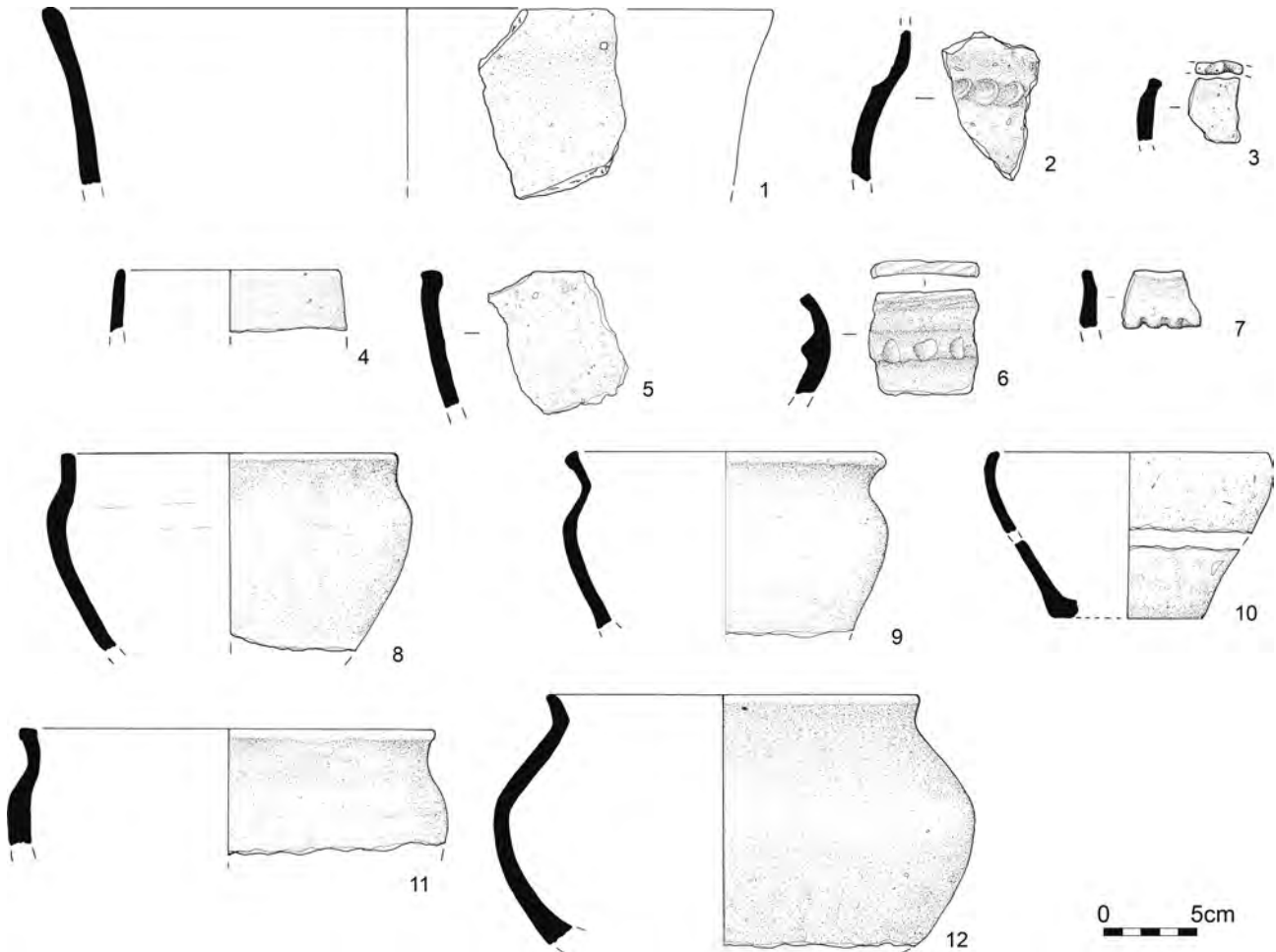


FIGURE 13: Prehistoric pottery

- 10. Jar with plain ovoid profile, Archive fabric group QUAR2, fill 959, post-hole 956
- 11. Necked jar, Archive fabric group FLQU1, fill 1138, pit 1137
- 12. Necked jar with sinuous S-profile and well-burnished surfaces, Archive fabric group FLQU1, fill 955, post-hole 954

**Roman Pottery** by Gwladys Monteil

The pottery was first assessed by J. Compton in 2002 and the whole assemblage re-quantified in 2015 using sherd count, weight and Estimated Vessel Equivalent (EVE). The pottery fabrics were identified using the Essex County Council Field Archaeology Unit fabric series, and the vessel forms using the *Camulodunum* type series (Hawkes and Hull 1947, 215–75) for the Late Iron Age pottery and the type series devised for Chelmsford (Going 1987, 13–54) for forms of Roman date. As noticed during spot-dating (Compton 2002), the present assemblage bears many similarities with pottery from the main Elms Farm site, in particular with that from Area R, which is immediately adjacent. Since the assemblage from the main excavation has been published extensively (Biddulph *et al.* 2015) this report summarises the main components of the Roman pottery group and highlights the intrinsically interesting pieces from Crescent Road.

In total, the Roman pottery assemblage amounts to 4,596 sherds (c.80kg), with the bulk (3,725 sherds) deriving

from stratified contexts in site phases 4 to 6 (Table 3). A large proportion of the assemblage comprises small groups or single sherds and the range of fabrics is relatively limited when compared to the main excavation. There is a little Late Iron Age and Early Roman pottery, the majority of which was found as residual material in later features. Most of this pottery is grog-tempered and there are very few imports with the exception of a North Gaulish globular beaker (NGWF) with fine rouletting, close to form *Cam.* 91, found as a residual piece in Phase 6. The rest of the assemblage suggests a main episode of land use activity from the mid to the Late Roman period.

*Phase overview*

The Roman pottery assemblage is overviewed by site phase. Composition by form (Table 4) and fabric (Tables 5–7), and selected groups and items of intrinsic interest, are considered.

*Phase 4*

A relatively small assemblage, 345 sherds (8.33 EVEs), of Roman pottery comes from features assigned to this Early Roman site phase (Table 5). The range of fabrics is limited and suggests a supply mostly drawn from local sources with few fine wares either from Romano-British sources or imported. The proportion of grog-tempered fabrics is higher in this phase than any others, representing 8% of the total sherd

Site phase	sherd no	% sherd	weight	% weight	EVE	% EVE	Av weight
3	2	0.05%	37	0.05%		0.00%	18.50
4	345	8.16%	8551	11.43%	8.33	10.03%	73.72
5	1655	39.15%	21566	28.82%	26.39	31.76%	39.07
6	2148	50.82%	44163	59.01%	47.57	57.25%	57.13
7	10	0.24%	119	0.16%	0.12	0.14%	17.00
8	67	1.59%	405	0.54%	0.68	0.82%	33.75
<b>Total</b>	<b>4227</b>	<b>100%</b>	<b>74841</b>	<b>100%</b>	<b>83.09</b>	<b>100%</b>	<b>51.19</b>

TABLE 3: Quantification of stratified Roman pottery by phase

Vessel form	Phase 4				Phase 5				Phase 6			
	sherd no	% sherd	EVE	% EVE	sherd no	% sherd	EVE	% EVE	sherd no	% sherd	EVE	% EVE
amphora					2	0.12%			15	0.70%		
beaker	15	4.81%			125	7.54%	3.28	12.43%	240	11.17%	3.82	8.03%
bowl					2	0.12%			11	0.51%	0.59	1.24%
bowl/jar	2	0.64%	0.1	1.78%	19	1.15%	0.88	3.33%	30	1.40%	2.02	4.25%
strainer?									1	0.05%		
cup					3	0.18%	0.11	0.42%	9	0.42%	0.23	0.48%
dish	40	12.82%	2.36	41.92%	179	10.80%	5.54	20.99%	294	13.69%	10.33	21.72%
flagon					1	0.06%			25	1.16%	3.25	6.83%
jar	211	67.63%	3.06	54.35%	1091	65.80%	15.55	58.92%	1192	55.49%	25.03	52.62%
lid	3	0.96%	0.11	1.95%	6	0.36%	0.47	1.78%	8	0.37%	0.95	2.00%
mortarium	1	0.32%			21	1.27%	0.56	2.12%	108	5.03%	1.18	2.48%
platter					4	0.24%			5	0.23%	0.17	0.36%
unid	40	12.82%			205	12.36%			210	9.78%		
<b>Total</b>	<b>312</b>	<b>100%</b>	<b>5.63</b>	<b>100%</b>	<b>1658</b>	<b>100%</b>	<b>26.39</b>	<b>100%</b>	<b>2148</b>	<b>100%</b>	<b>47.57</b>	<b>100%</b>

TABLE 4: Functional categories represented in phases 4 to 6(not inc. cremation burial [52] data)

count, though they only total twenty-eight sherds, and there is no early shell-tempered ware (ESH). Sandy grey wares (GRS) make up half of the assemblage, followed by black-surfaced wares (BSW).

The most common functional group is the jar (54% EVEs) and is closely followed by the dish (42% EVEs) although the latter category is influenced by the presence of two well-preserved dishes in fill [1057] of pit [1055] (see below). The range of jar forms present includes typical mid Roman examples such as the G23 types, G9 and G5.4 alongside a few Early Roman necked jar forms. Dishes include straight-sided bead-rimmed dishes (B2 and B4) and plain rimmed ones (B1).

#### Structured group [1057], pit [1055]

An interesting assemblage of Roman pottery, possibly part of a structured deposit was recovered from upper fill [1057] of Phase 4 pit [1055]. Totalling eighty-nine sherds (2.77 EVEs) with a high average sherd weight of c.76g, the group includes several complete or near complete vessels, including two with graffiti. One of these, a BB2 beaded rim dish (Fig. 14 .1), bears a post-firing inscription of part of a woman's name in the genitive case, [...]ILINE, probably denoting ownership '(Property) of [...]ilina' (Tomlin 2016, Fig. 9, 395). Also present is a plain-rimmed dish with a post-firing illiterate graffito in the shape of a cross (Fig. 14.2), a shallow bowl with a flanged rim in black- surfaced ware (BSW, C2; Fig. 14.3), a

North Kent Grey Ware (NKG) beaker with barbotine lozenges (H6.2; Fig. 14.4), five joining sherds from a Central Gaulish samian dish form Dr.31 (not illustrated) and a jar form G23 in sandy grey ware (GRS; Fig. 14.5). A number of structured deposits were identified at Elms Farm, but relatively few of them had more than one vessel (Biddulph *et al.* 2015). This small 2nd-century AD group is perhaps a deposit formally ending the original role of the pit.

#### Cremation burial [52]

Much of the upper section of the cremation jar, a sandy grey ware with burnished wavy decoration is missing (Fig. 7.1). Three ancillary vessels were recovered from within it; a residual and much abraded South Gaulish samian platter form Dr.18 (Fig. 7.2), a Colchester Colour-Coated beaker H20.1 with fine roughcasting to a plain zone below the rim (Fig. 7.3) and a small narrow-necked jar G40 in BSW (Fig. 7.4). The Colchester beaker provides a *terminus post quem* of c.AD 130 for this group, and most of the other vessels, including the curated 1st-century samian dish, seem to point towards a date of deposition in the 1st half of the 2nd century. Small sections of the rims are missing on all of the ancillary vessels. Such deliberate breakage of vessels is common practice in Romano-British cemeteries and has been recorded at a number of sites in Essex (Going 1988; Doherty 2017; Biddulph 2007, CD Rom chapter 3).

Fabric codes	Fabric names	sherd no	% sherd	weight	% weight	EVE	%EVE
BB1	Black Burnished Ware category 1	2	0.58%	35	0.41%		0.00%
BB2	Black Burnished Ware category 2	7	2.03%	85	0.99%	0.34	4.08%
BSW	Black-surfaced wares	94	27.25%	1678	19.62%	2.63	31.57%
CGSW	Central Gaulish samian ware	6	1.74%	37	0.43%	0.15	1.80%
COLBM	Colchester Buff Ware , mortaria	1	0.29%	106	1.24%		
COLC	Colchester Colour-Coated Ware	1	0.29%	115	1.34%	0.9	10.80%
EGSW	East Gaulish samian ware	2	0.58%	24	0.28%		
GRF	Fine grey wares	1	0.29%	2	0.02%		
GROG	Fine reduced grog-tempered ware	21	6.09%	290	3.39%	0.26	3.12%
GROGC	Coarse reduced grog-tempered ware	7	2.03%	93	1.09%		
GRS	Sandy grey wares	174	50.43%	5126	59.95%	3.11	37.33%
NKG	North Kent Grey Ware	15	4.35%	231	2.70%		
NVC	Nene Valley Colour-Coated Ware	1	0.29%	2	0.02%		
RED	Miscellaneous oxidised wares	3	0.87%	31	0.36%	0.03	0.36%
SGSW	South Gaulish samian ware	3	0.87%	227	2.65%	0.85	10.20%
STOR	Storage jar fabric	7	2.03%	469	5.48%	0.06	0.72%
<b>Total</b>		<b>345</b>	<b>100%</b>	<b>8551</b>	<b>100%</b>	<b>8.33</b>	<b>100%</b>

TABLE 5: Roman pottery fabrics represented in Phase 4 (data include vessels from the cremation group)

*Phase 5*

With 1,655 sherds (26.39 EVEs), the assemblage from Middle Roman Phase 5 is the second largest recovered and, while sandy grey wares (GRS) and black-surfaced wares (BSW) still dominate the group, the range of fabrics present is more varied than in the preceding phase (Table 6). The relatively high percentage of fine grey ware (GRF) (4.4% of EVE) is slightly unusual for Essex in the 3rd century AD and is related to a concentration of beakers in the top fill [70] in pit [68]. The single fragment of amphora recovered in this phase also comes from this fill; it is from a globular shaped Baetican Dressel 20 amphora, the most common amphora imported in Roman Britain.

The proportions of form classes change in this phase with an unusually high number of beakers (c. 12% of EVEs). Most of those come from the top fill [70] in pit [68] and are highly fragmented. They occur in a range of fabrics (GRF, GRS, NVC, BSW) and display a large range of decorations—indented, roller-stamped, rouletted bands and barbotine scale decoration.

B1, B2, B3 and B4 dominate the dish group, but the first incipient bead-and-flanged dishes (B5) and fully flanged dishes (B6) appear in the repertoire. The jars are predominantly of the G24 type with several examples of the G5 ledge-rimmed jar.

**Pottery of intrinsic interest**

A mortarium stamp was recovered from pit segment [68] fill [70] (Fig. 14.6). The stamp is partial but seems closer to a roller stamp than a trademark one; perhaps the closest parallel is a vessel from Chelmsford (Going 1987, fig.48, no.14).

*Phase 6*

A much larger group of 2,148 sherds came from features assigned to this Late Roman site phase (47.57 EVEs) (Table 7). Some of this material is undoubtedly residual (GROG, samian

ware, Colchester, BB2), but the bulk of the pottery recovered dates to the later 3rd and 4th century AD. Nene Valley and Hadham wares are particularly well-represented in this phase adding up to 8.7% and 5.28% of the total EVE respectively. Fine and sandy grey wares (GRF, GRS) represent over 50% of the assemblage by sherd and EVE, black-surfaced Wares (BSW) still represent 16% of the group while flint-tempered Rettendon wares (RET) account for a further 2%. The latest Roman wares however make up a relatively small portion of the pottery, with Oxfordshire Red Colour-Coated (OXRC) and late shell-tempered wares (LSH) each only forming less than 1% of the assemblage by sherd count (no EVE).

In terms of the vessel classes represented, this phase sees a more diverse range of types (Table 3). Jars still represent more than half of the assemblage, but the quantitative roles played by drinking vessels (beakers, flagons) and mortaria increase. Alongside deep bead-rimmed dishes (B4) and incipient flange rim dishes (B5) the group now includes more fully flange-rimmed dishes (B6). More uncommon forms are present in this phase: a possible strainer in black-surfaced ware, two plaques and a face flagon (see below for details).

**Selected groups and vessels of intrinsic interest**

Of note are two face pots recovered from Late Roman deposits. Several fragments of a face jar in a coarse oxidised sandy fabric with white slip were recovered from pits [105] and [204] (fills [106] and [206], Fig. 14.7). Most of the upper section remains and shows a bifid rim with notches placed at regular interval on the upper lip, a face mask with M-shaped brows, eyes and nose on top of a zone of combed chevrons. The design is similar to the one recovered from the Elms Farm excavation (Biddulph *et al.* 2015, fig.334, no. 1) but more complete and the zig-zag decoration beneath the face is here made with dotted lines (from a comb?) and not incised. This face mask

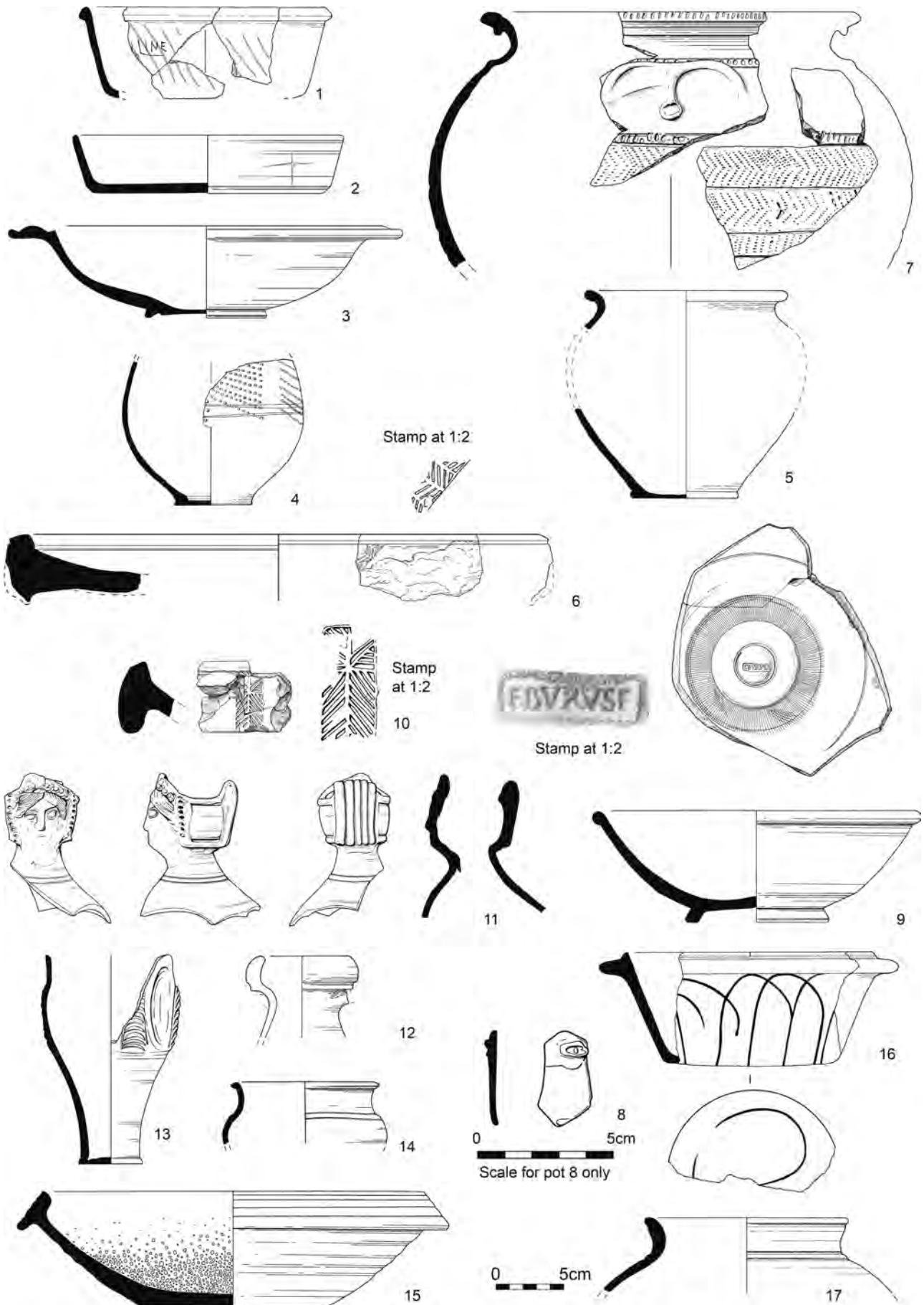


FIGURE 14: Roman pottery

<b>Fabric code</b>	<b>Fabric names</b>	<b>sherd no</b>	<b>% sherd</b>	<b>weight</b>	<b>% weight</b>	<b>EVE</b>	<b>% EVE</b>
ABAET	Baetican amphoras	2	0.12%	165	0.77%		
ALH	Alice Holt	30	1.81%	344	1.60%		
BB	Black burnished wares, unsourced	3	0.18%	15	0.07%		
BB2	Black Burnished Ware category 2	24	1.45%	385	1.79%	0.5	1.89%
BSW	Black-surfaced wares	301	18.19%	3693	17.12%	5.49	20.80%
BUF	Buff wares, unsourced	1	0.06%	9	0.04%		
BUFM	Buff wares, unsourced, mortaria	12	0.73%	438	2.03%	0.33	1.25%
CGRHN	Central Gaulish Rhenish ware	5	0.30%	16	0.07%	0.32	1.21%
CGSW	Central Gaulish samian ware	13	0.79%	129	0.60%	0.11	0.42%
COLBM	Colchester Buff Ware , mortaria	2	0.12%	140	0.65%	0.1	0.38%
COLC	Colchester Colour-Coated Ware	12	0.73%	79	0.37%	0.54	2.05%
EAM	East Anglian mortaria	2	0.12%	187	0.87%	0.06	0.23%
EGSW	East Gaulish samian ware	6	0.36%	213	0.99%	0.45	1.71%
GRF	Fine grey wares	70	4.23%	399	1.85%	1.16	4.40%
GROG	Fine reduced grog-tempered ware	23	1.39%	529	2.45%	0.54	2.05%
GROGC	Coarse reduced grog-tempered ware	3	0.18%	69	0.32%		
GRS	Sandy grey wares	1071	64.71%	13267	61.52%	15.94	60.40%
GRSM	Sandy grey wares mortaria	1	0.06%	20	0.09%		
HAB	Hadham black-surfaced ware	1	0.06%	13	0.06%		
HAR	Hadham Grey Ware	3	0.18%	32	0.15%		
HAX	Hadham Oxidised Ware	5	0.30%	30	0.14%	0.06	0.23%
MIC	Romano-British mica-dusted wares	1	0.06%	10	0.05%	0.08	0.30%
MWSRS	Miscellaneous white- or cream-slipped red-buff wares	5	0.30%	96	0.45%		
NKG	North Kent Grey Ware	5	0.30%	26	0.12%		
NVC	Nene Valley Colour-Coated Ware	8	0.48%	29	0.13%	0.1	0.38%
NVG	Nene Valley Grey Ware	1	0.06%	30	0.14%	0.07	0.27%
NVM	Nene Valley self-coloured mortaria	1	0.06%	20	0.09%		0.00%
OXWM	Oxfordshire White Ware	2	0.12%	89	0.41%	0.07	0.27%
RED	Miscellaneous oxidised wares	9	0.54%	109	0.51%	0.47	1.78%
RET	Rettendon-type ware	10	0.60%	151	0.70%		
SGSW	South Gaulish samian ware	1	0.06%	2	0.01%		
STOR	Storage jar fabric	17	1.03%	814	3.77%		
UCC	Colour-coated wares, unsourced	4	0.24%	15	0.07%		
VRW	Verulamium region white ware	1	0.06%	3	0.01%		
<b>Total</b>		<b>1655</b>	<b>100%</b>	<b>21566</b>	<b>100%</b>	<b>26.39</b>	<b>100%</b>

TABLE 6: Roman pottery fabrics represented in Phase 5

has similarities to types identified in Kent and East Sussex (Braithwaite 2007; type 13E, 264).

The second example is much more fragmentary. Also recovered from fill [206], it is a small body sherd probably from a beaker with under-slip barbotine decoration in the shape of an eye (Fig. 14.8). The size of this eye seems too large to be part of the more common types of barbotine decoration found on Colchester beakers (Hull 1963, figs.51–54; 96–97) and is likely to form part of another face pot. Colchester Colour-Coated face pots are not unknown; one was recovered from Elms Farm (Biddulph *et al.* 2015, fig. 334 no.5), but the mask is applied. No good parallel can be found for this unusual beaker. Both vessels are probably residual in this phase and may have been part of a ritual deposit.

A new samian stamp die on a near complete dish comes from pit [463] (fill [464], Fig. 14.9). This new stamp is by East Gaulish potter Eburus and has been assigned number 4b (B. Dickinson, pers. comm.). The fabric is East Gaulish but not typical of Blickweiler and Boucheporn, the two kiln

sites known for this potter (Hartley and Dickinson 2008, 343). The pale pink fabric and the slip seem more characteristic of Trier which is as yet unrecorded for this potter (Hartley and Dickinson 2008, 343). The form is a variant of bowl Dr31R (LUDSb/Sh) with a low internal kick, a groove in lieu of step and a rouletted band. Several examples of such variants were recovered from the cemetery at Brougham (Dickinson *et al.* 2004, 348) all dated to the end of the 2nd and the 3rd centuries AD. It is possible therefore that the current date range of this potter needs to be extended.

A herringbone-like trademark stamp on a mortarium was recovered from layer [777] (Fig 14.10). The stamp is partial but identical to the ones recovered from earlier excavations in Heybridge (Wickenden 1986, fig. 24, no.199; Hartley 2015, fig. 316, no.15). The fabric is buff grey and possibly locally made, the trituration grits are flint, the form a *Cam.* 498 (D11).

Finally, well [571] contained a large quantity of 4th-century pottery, with a total of 596 sherds (c.18kg, 19.18 EVE) it is one of the largest assemblages recovered from the



<b>Fabric codes</b>	<b>Fabric names</b>	<b>sherd no</b>	<b>% sherd</b>	<b>weight</b>	<b>% weight</b>	<b>EVE</b>	<b>%EVE</b>
ABAET	Baetican amphoras	2	0.09%	315	0.71%		
AGAUL1	Gaulish amphoras	13	0.61%	166	0.38%		
AGAUL4	Gaulish amphoras	5	0.23%	429	0.97%		
ALH	Alice Holt	11	0.51%	791	1.79%		
BB	Black burnished wares, unsourced	22	1.02%	194	0.44%	0.51	1.07%
BB1	Black Burnished Ware category 1	27	1.26%	1056	2.39%	1.06	2.23%
BB2	Black Burnished Ware category 2	7	0.33%	88	0.20%	0.21	0.44%
BSW	Black-surfaced wares	354	16.48%	6582	14.90%	6.58	13.83%
BUF	Buff wares, unsourced	8	0.37%	39	0.09%	0.25	0.53%
BUFM	Buff wares, unsourced, mortaria	87	4.05%	1438	3.26%	0.36	0.76%
CGRHN	Central Gaulish Rhenish ware	4	0.19%	42	0.10%	0.13	0.27%
CGSW	Central Gaulish samian ware	26	1.21%	633	1.43%	0.62	1.30%
COLB	Colchester Buff Ware	13	0.61%	170	0.38%		
COLBM	Colchester Buff Ware , mortaria	1	0.05%	42	0.10%		
COLC	Colchester Colour-Coated Ware	6	0.28%	25	0.06%	0.22	0.46%
EGRHN	East Gaulish Rhenish ware	2	0.09%	22	0.05%		
EGSW	East Gaulish samian ware	28	1.30%	853	1.93%	0.73	1.53%
GRF	Fine grey wares	84	3.91%	889	2.01%	1.22	2.56%
GROG	Fine reduced grog-tempered ware	19	0.88%	516	1.17%	0.42	0.88%
GRS	Sandy grey wares	1084	50.47%	18631	42.19%	25.34	53.27%
HAB	Hadham Black-Surfaced Ware	2	0.09%	43	0.10%	0.08	0.17%
HAR	Hadham Grey Ware	11	0.51%	112	0.25%	0.12	0.25%
HAWO	Hadham White-Slipped Oxidised Ware	1	0.05%	3	0.01%		
HAX	Hadham Oxidised Ware	38	1.77%	724	1.64%	2.31	4.86%
LSH	Late shell-tempered ware	13	0.61%	158	0.36%	0.33	0.69%
MHM	Mancetter-Hartshill mortaria	1	0.05%	64	0.14%	0.06	0.13%
MIC	Romano-British mica-dusted wares	1	0.05%	20	0.05%		
MWSRS	Miscellaneous white- or cream-slipped red-buff wares	8	0.37%	431	0.98%	0.15	0.32%
NFC	New Forest Colour-Coated Ware	14	0.65%	257	0.58%	0.42	0.88%
NGWF	North Gaulish white fine wares	1	0.05%	179	0.41%		
NKG	North Kent Grey Ware	3	0.14%	10	0.02%		
NVC	Nene Valley Colour-Coated Ware	92	4.28%	1414	3.20%	3.56	7.48%
NVG	Nene Valley Grey Ware	1	0.05%	21	0.05%	0.04	0.08%
NVM	Nene Valley self-coloured mortaria	8	0.37%	583	1.32%	0.54	1.14%
NVP	Nene Valley Painted Ware	1	0.05%	11	0.02%		
OXRC	Oxfordshire Red Colour-Coated Ware	5	0.23%	61	0.14%		
OXRCM	Oxfordshire Red Colour-Coated Ware, mortaria	1	0.05%	14	0.03%		
OXWM	Oxfordshire White Ware	1	0.05%	40	0.09%	0.05	0.11%
RED	Miscellaneous oxidised wares	16	0.74%	229	0.52%	0.42	0.88%
RET	Rettendon-type ware	49	2.28%	649	1.47%	0.88	1.85%
STOR	Storage jar fabric	62	2.89%	5891	13.34%	0.71	1.49%
UCC	Colour-coated wares, unsourced	16	0.74%	328	0.74%	0.25	0.53%
<b>Total</b>		<b>2148</b>	<b>100%</b>	<b>44163</b>	<b>100%</b>	<b>47.57</b>	<b>100%</b>

TABLE 7: Roman pottery fabrics represented in Phase 6

site. There were two distinct assemblages recovered from the well; one is associated with its use (lower fill 1173) and has the smaller but the better preserved material, the other is associated with the disuse of the well (fills 573, 574, 707, 1171 and 1172). No joins between the fills were noticed.

Several of the vessels from well [571] use deposits were recovered in large fragments and the whole assemblage has a very high average sherd weight (c. 110g). The range of types is diverse and amongst the better-preserved ones is the complete top of a face-mask flagon in Hadham Oxidised Ware (HAX; Fig. 14.11 and Plate 1); the flagon does not have a handle but instead a good representation of hair style at the back. There is another flagon also in HAX with a plain bulbous rim and two handles (Fig. 14.12), a Nene Valley Colour-Coated (NVC) beaker with indentation and barbotine scale decoration (H32, Fig. 14.13), a beaker rim in a sandy reduced fabric (Fig. 14.14), the rim of a Nene Valley mortarium D14 (Fig. 14.15), a Central Gaulish platter form Wa79 repaired in two places (not illustrated), a BB1 flanged bowl with burnished intersecting arcs (B6.2; Fig. 14.16) and the rim of a jar G8.1 (Fig. 14.17). The presence of BB1, Hadham Ware and the absence of Oxfordshire Red Colour-Coated Ware (OXRC) and late shell-tempered ware (LSH) would suggest a deposition date in the mid 4th century AD. The presence of a face-mask flagon perhaps hints at a ritual significance for this group; such vessels seem to have been selected for deposition in features related to water at Elms Farm (Biddulph *et al.* 2015).

The assemblage from the well [571] disuse deposits is larger (525 sherds, 19.18 EVEs) but much more mixed and fragmented (average weight of c. 68g). Black-surfaced wares (BSW) and sandy grey wares (GRS) dominate, but Oxfordshire Red Colour-Coated Ware (OXRC), flint-tempered Rettendon wares (RET) and late shell-tempered ware (LSH) are present in this group albeit in small quantities which suggests a deposition date in the later 4th century AD.

#### *Discussion and Conclusions* (with Anna Doherty)

The composition of the Roman pottery assemblage recovered from this Crescent Road excavation bears many similarities to that from the Elms Farm site (Biddulph *et al.* 2015) though, like the assemblage from Langford Road, to the north-west (Croom 1997), the bulk of the assemblage is of mid to Late Roman date, with only small quantities of Early Roman pottery. The most common fabrics represented are black-surfaced wares (BSW) and sandy grey wares (GRS). Imports are relatively scarce and account for 2.9% of the Roman pottery assemblage. They consist of samian ware and Rhenish ware from Central and Eastern Gaul alongside amphorae of Spanish and Gaulish origin, most of which were recovered as residual material in Phase 6. The range of forms suggests a domestic jar-dominated assemblage with dishes being the next most common vessel class.

There are, however, some more unusual forms and concentrations of vessels. For example, the three face pots add to data from Elms Farm, suggesting that these vessels were far more common at Heybridge than on any other site in the region except for Colchester (Biddulph *et al.* 2015). Such vessels have long been linked with shrines and with religious practice undertaken in a variety of other contexts (*e.g.* Braithwaite 2007, 255). Although the features in which the Crescent Road vessels were found are not unambiguously votive in nature, there are reasons to believe they may represent deliberate deposits. For example, two of three vessels were stratified together in the upper fill of pit [204] and another was found in a use-related fill of well [571], a feature type which has a strong association with structured deposition (Fulford 2001). This evidence is interesting because, although several of the face pots from Elms Farm were associated with the shrine/temple complex, the current evidence appears to demonstrate that votive practice was also more widespread within the settlement.



PLATE 1: Face-mask flagon from well fill [1173]

Other types of structured deposition involving pottery are arguably slightly less common than at Elms Farm, although this may only reflect the relative scale of the two excavations. Aside from the funerary group, there are few complete or near-complete vessels. However, the groups containing the least fragmented assemblages, from Phase 4 pits [497] and [1055], do seem to conform to several broad patterns of structured deposition at Elms Farm. Firstly, they are from pits rather than ditches or structural features and secondly, graffitomarked vessels appear to have been preferentially selected for deposition in a partially-complete state. One of the graffiti in this group is of the X type. At Elms Farm, a link was drawn between this marking and the wheel in religious iconography; a possible association to deities such as Fortuna were also highlighted (Biddulph *et al.* 2015). Of particular interest in pit [1055] is the example of a literate marking, denoting ownership by a named individual. Modern experience may lead us to think of pottery vessels, particularly coarse kitchen wares, as communal household equipment, but this example seems to suggest a very personal connection between the object and the individual. It might even be suggested that such an object represents its owner or that the written name had some perceived power in the process of votive offering. Perhaps the only other feature with a slightly unusual pattern of deposition is also a pit, [68]. Here the evidence for structured deposition is less clear-cut, but a concentration of beakers (making up 25% of the group by EVE) may suggest debris from particular events involving drinking in social context.

Wares usually associated with the latest Roman horizons are only present in small quantities (*e.g.* Oxford red colour-coats and late shell-tempered ware). This suggests that there was probably only limited and decreasing activity on this part of the settlement in the third quarter of the fourth century, as features like well [571] finally filled up and some of latest pits, such as [463] and [1080], fell into disuse. Unlike at Elms Farm, none of the well-stratified ceramic groups contained substantial proportions of these late indicator fabrics, suggesting that activity in this part of the settlement had ceased slightly earlier than the latest (Ceramic Phase 11) features at Elms Farm (Biddulph *et al.* 2015).

**Saxon Pottery** by Susan Tyler

The Saxon pottery assemblage is small and it is consequently difficult to draw any conclusions regarding its significance.

A total of 208g (fifteen sherds from twelve vessels) of Early Saxon pottery was recovered from four contexts (Table 8). The general condition of the pottery is unabraded (the pottery from fill [1103] in post-hole [1102] has lost some surface but is not generally abraded). The vessel from feature [1207] represents 25% of the rim of a large jar or cooking pot. Of the five sherds from pit fill [355], two have freshly broken edges but no joining sherds, which suggests that some pottery from this context was not recovered.

The identification of fabrics follows previous analyses of pottery from sites in Essex, including Mucking (Hamerow 1993; Hirst and Clark 2009) and Springfield Lyons (Tyler and Major 2005):

- 1a. Quartz-sand tempered within a clay matrix containing few inclusions. Well sorted, dense rounded to sub-angular small to medium particles. Hard, medium to well fired.
- 1b. As 1a but with varying quantities of mica and feldspar.
- 1c. As 1a but with sparse to common iron oxide.
2. An assortment of sandy fabrics whose quartz-sand particles are generally larger and more angular than 1a.
- 3a. Organic temper within a clay matrix containing few inclusions.
- 3b. Organic temper with common iron oxide within a clay matrix.
- 4a. Tempered with quantities of organic matter and small to medium well-sorted dense quartz-sand (in varying proportions) within a clay matrix.
- 4b. Tempered with quantities of organic matter and small to medium well-sorted dense quartz-sand (in varying proportions) within a clay matrix with sparse large quartzite inclusions

The recovered pottery has a date range of the 5th to 7th centuries AD and is typical of Early Saxon settlement contexts comprising mostly utilitarian domestic wares such as coarse jars manufactured in sand and organic tempered fabrics (Fabrics 2, 3 and 4). The single diagnostic vessel is a large jar or cooking pot with everted, rounded rim from post-hole fill [1207] (Fig. 15). The small quantity recovered is surprising given the proximity of the site to previously excavated Saxon settlement and cemetery features at the 1972 Crescent Road and Elms Farm sites and the significantly larger assemblages of pottery retrieved from them (Drury and Wickenden 1982;

Context	Pottery description	Sherd count	Weight	Date
212	Body sherd. Fabric 4a. Dark grey.	1 sherd	8g	5th–7th cent
355	Base/body sherds. From 4 vessels. Fabric 2. Surfaces reddish-brown to grey. Cores dark grey.	5 sherds (from 4 vessels)	82g	5th–7th cent
1103	Body sherds (6) Fabric 2. Outer surfaces light reddish-brown. Inner and core dark grey. Inner smoothed. Wt. 20g. Body sherd. Fabric 3a. Surfaces light reddish-orange. Core dark grey. Wt. 5g.	7 sherds (from 6 vessels)	25g	5th–7th cent
1207	Large jar/cooking pot rim and body sherd. Everted, rounded. Fabric 3a. Light reddish-grey outer. Inner and core dark grey throughout. (Fig. 15)	2 sherds (from 1 vessel)	93g	5th–7th cent

TABLE 8: Saxon pottery quantification

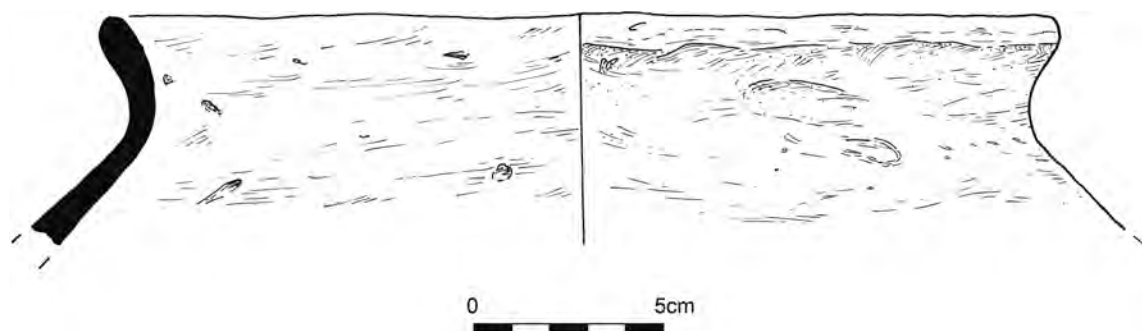


FIGURE 15: Early Saxon pottery

Tyler 2015). Although present in greater quantity at Langford Road it is noted that its incidence in the type and count of features is broadly similar; pottery deriving from a pit, three post-holes and the top of a well (Tyler 1997).

#### Ceramic Building Materials by Isa Benedetti-Whitton

A total of 3,916 fragments of ceramic building material (CBM) weighing 372kg were hand-collected from 122 contexts. The majority is Roman, with a few pieces of medieval and modern tile fragments also present. Quantification, by form, is presented in Table 9.

Much of the CBM from Crescent Road is vitrified to the extent that the clay had become crystallised and fabric could only be assessed for 687 fragments. Six fabrics are identified (details in archive report), most of which appear to be of similar base clay with the main distinction being the type and quantity of inclusions. The Crescent Road fabric descriptions were compared to those defined for the nearby Elms Farm site in order to identify common fabric types. The conclusions of this comparison are inherently limited as no physical samples from Elms Farm were available, but due to the close proximity from Crescent Road to Elms Farm it is likely that many fabrics were common to both sites.

Roman brick is the most common CBM form and was recovered in the greatest quantities from Late Roman pit [463] (eighty-three fragments) and drying structure [708] (202 fragments). 77% of the brick collected was burnt. The two features that produced the greatest quantities of Roman brick also produced the largest amounts of tegulae; 186 fragments from pit [463] and ninety-two from drying structure [708]. In addition to these, feature [571], a well containing debris from the mid/Late Roman period, also produced ninety-two tegula

fragments. A fairly large number of tegulae (22%) have surface decoration of the 1-arc, 2-arc or 3-arc variety.

Other items of interest include four burnt and reduced tesserae, one from a fill within pit [463], and three from dryer [708], and nine fragmentary pieces of tegula flange, believed to be 'cut-offs'; eight were from the fill of well [463] and one from dryer [708]. The presence of tegula cut-offs could indicate a tile works in the vicinity of Crescent Road.

Only a very small amount of mortar was collected. This comprised twenty-seven fragments of *opus signinum* from various features across the site, including small quantities from well [571] and pit [463], and sixteen highly fragmented pieces of burnt lime mortar recovered from dryer [708]. The absence of any adhesive material still attached to CBM renders it unlikely that the material used to construct the dryer was recycled from another building, although it also is unusual—given the size of the assemblage—that almost no traces of mortar are present at all.

The greatest quantities of CBM from Crescent Road are associated with site Phases 4 and 6 which respectively produced 1,427 and 1,429 fragments. The material from Phase 4 was mainly found *in situ* in drying surface [708], whilst the Phase 6 CBM was recovered from a greater range of deposits, including the possible sealing deposit in well [571], which could signal the broader disuse and abandonment of this location on the northern periphery of the later Roman settlement.

The 1972 Crescent Road site, excavated to the immediate south-east, produced only a modest quantity of CBM, all fragmentary. As at the current Crescent Road site, the CBM recovered here started to appear on site from the later 1st century and much of the material is described as being either reduced to grey or 'totally wasted', to the extent that it is

CBM form	Quantity	% of total	Weight (g)	% of total
Roman brick	551	14.0	147870	39.7
Tegula	701	17.9	97843	26.3
Imbrex	254	6.5	24610	6.6
Box flue	58	1.5	6830	1.8
Tesserae	4	0.1	88	0.0
Tegula cut-offs	9	0.2	354	0.1
Mortar and Op sig	43	1.1	427	0.1
?Non-Roman tile	6	0.2	138	0.0
Undiagnostic spall	2290	58.5	93932	25.2
<b>TOTAL:</b>	<b>3916</b>	<b>100%</b>	<b>372,092g</b>	<b>100%</b>

TABLE 9: Comparative quantities of recovered CBM

speculated to be kiln debris (Wickenden 1986, 21). Given the short distance between this site and Crescent Road it seems reasonable to propose the burnt CBM could instead be further waste from another drying structure, or perhaps from [708] itself. The Langford Road excavation, to the north-west, produced even less CBM, reflecting its increased distance from the Roman period settlement core (Langton 1997).

The Elms Farm site produced a vast quantity of CBM, the largest ever documented from a rural site at over 7,000kg (Major and Tyrrell 2015). The 4,334 fragments of CBM that came from kiln and drying structures accounted for only 5% of the total quantity of CBM found, whereas at Crescent Road 35% of all the CBM recovered derives directly from dryer [708] and much of the CBM collected from elsewhere on site probably originates from this feature too, revealing the more diverse nature of the Elms Farm area in comparison with Crescent Road, which likely functioned principally as a processing area on the edge of the settlement's cultivated land. At both Elms Farm and Crescent Road the largest quantities of CBM appear to have been discarded during mid and Late Roman Periods 5 and 6, a time which has already been noted as one of change and apparent general decline at Elms Farm (Atkinson and Preston 2015a, 25). Being an integral, albeit peripheral, part of the wider Roman settlement, this Crescent Road site is clearly subject to the same decline.

#### **Fired Clay** by Trista Clifford

A small assemblage of fired clay was recovered during the excavations, totalling 1,294 pieces (5,711g) from fifty-two individual contexts, giving a mean fragment weight (MFW) of 4.3g. Details of fabric identification and analysis are held in archive. The material was recovered from features spanning the prehistoric to Late Roman/Early Saxon (Periods 1–7). The peak of deposition occurs in Period 2 (Early Iron Age), with another smaller peak in Period 4 (Late Iron Age to Early Roman) and would therefore appear to pre-date the main phase of activity at Elms Farm. With the exception of the elements described below, the fired clay assemblage is unremarkable. As was also noted at Elms Farm most of the material is very abraded having been redeposited in pits and postholes, and as such adds little to the interpretation of site activity. Small quantities of structural daub, hearth material and briquetage reflect the nature of the much larger assemblage recovered during previous excavations.

#### *Briquetage*

A single briquetage slab fragment (177g) was recovered from Period 7 pit fill [1011]. The slab, which measures 25mm thick, is smoothed on the upper surface only. Although no outer edges remain, the object shares similarities with those previously recovered at Elms Farm (Tyrrell 2015). The lack of any other briquetage forms suggests that salt was not being utilised here as it was elsewhere on the settlement, Elms Farm yielding the largest inland Essex assemblage excavated to date.

#### *Structural daub*

Structural daub with wattle impressions accounts for 6% by count and 24% by weight of the fired clay assemblage. Seven features across Periods 1–6 and undated contained wattle impressed daub fragments. Several more produced fragments with one flat smoothed surface but no wattle impression on the reverse.

Period 2 pit fill [175] contained the largest group (2,034g) of wattle impressed daub. Wattle impressions measure between 20–24mm. Most pieces exhibit a smoothed, flat outer surface with a single vertical wattle impression; corner pieces were also noted.

Overall, measurable wattle impressions range between 11–24mm with a median average of 20mm. Most pieces have a single wattle impression, but two very abraded fragments seem to have had up to four. A single piece from Period 6 pit fill [320] exhibits two vertical wattle impressions and a horizontal squared timber wall stud imprint on the reverse c.50mm in width. Similarly impressed fragments were also noted by Tyrrell (2015) in the Elms Farm assemblage.

A single fragment of daub with a wiped, smooth surface from Period 6 pit fill [106] exhibits a small triangular and square impression in the surface which may be traces of roller stamping but could also have been produced accidentally.

#### *Hearth lining*

At least one kiln-like feature, [488], was excavated, although the tiny amount of fired clay recovered from its fill [388] was undiagnostic of function or form. Elsewhere, probable hearth material characteristic of high temperature processes was recovered from Period 2 layer [1026], period 4 drying floor [665] and Period 6 pit fill [464]. Roman post-hole [222] contained several pieces of cindery, iron-rich aerated possible furnace lining. Other isolated instances of seemingly high fired 'industrial' debris were also identified although again this is clearly redeposited material and a lack of diagnostic attributes precludes satisfactory identification.

#### *Perforated clay slabs*

Three fragments of crushed calcined flint tempered clay slab were recovered. An edge fragment from Period 5 ditch fill [1079] measures 20mm thick (Fig. 16.1), while Period 5 buried soil layer [597] produced two fragments with perforations measuring 15mm and 17mm diameter with a minimum thickness of 25mm (Fig. 16.2)

Clay slabs are a common Later Bronze Age form with a defined, regional distribution along the Thames Valley from Oxfordshire to North Kent (Champion 1980) and including the estuarine areas to the north and south of the River Blackwater. Therefore, their appearance here is in keeping with this distribution; other fragments are also known from Heybridge (*e.g.* Wickenden 1986) and other nearby sites producing similar fragments include North Shoebury (Wymer and Brown 1995) and Hornchurch (Guttmann and Last 2000). Fabric and forms appear consistent and a correlation with pottery fabrics (Keily 2006; Poole 2011, 265) and with briquetage fabrics (Bond 1988, 39) has been noted.

Detailed discussion on the function of perforated clay slabs is available elsewhere and will not be repeated here. Champion (1980; 2014), Bond (1988) and Adkins and Needham (1985), suggest uses in salt making, pottery kilns, or as oven or hearth furniture, although no conclusive hypothesis has yet been put forward for their function, and as stated by Bond (1988, 39) until examples are discovered *in situ*, the function of these objects must remain an enigma. Poole (2011) cites the similarity in fabrics utilised and the close relation of contemporary pottery fabrics as evidence for 'a specialist production related to the pottery industry'. Moore (2002, 269)

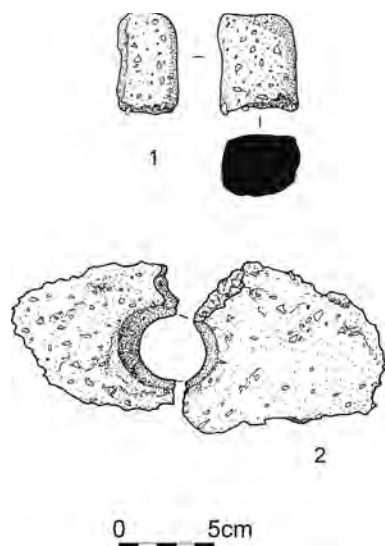


FIGURE 16: Fired clay objects

highlights the association of clay slabs with large quantities of fire-cracked flint as suggestive of use in baking ovens or for cooking; Champion (2014) specifically links them with the emerging utilisation of wheat for making bread.

An association with briquetage is sometimes suggested, *e.g.* at Cobham Golf Course (Keily 2006, 3), Mucking (Bond 1988, 39) and Hoo St Werburgh (Moore 2002, 274), although at Mucking the author did not conclude that the perforated clay slabs were directly involved in salt production. Similarly, an association with metalworking assemblages is noted but ultimately ruled out at Springfield Lyons (Buckley and Hedges 1987, 11–2), Hornchurch (Guttman and Last 2000, 344 and fig. 19) and Mill Hill (Champion 1980, 237) among others.

Unfortunately, other than adding another dot to the distribution map, these small fragments of clay slab contribute little to the discussion on the function of these objects.

### Registered Finds by Trista Clifford

A total of thirty-seven objects were assigned Registered Finds numbers in the field, of which three nails were subsequently de-accessioned (RFs <4>, <6> and <7>). One object was missing at the time of analysis and was therefore not seen by the author (RF<25>). Although this assemblage is clearly much smaller than that of the adjacent Elms Farm excavation it is apparent that the range of objects is not dissimilar, therefore this report has been structured in the same fashion by functional category, following Crummy (1983). Objects of unknown function are not described here.

#### (FF1) Personal adornment, dress and grooming

##### Hairpins

A single hairpin of Crummy type 3A was recovered from Group 25 pit fill [1166]. Hairpins of this type have a date range of *c.* 200AD onwards (Crummy 1983, 22), which is commensurate with the phasing of the context; other pins of this type from Elms Farm also broadly follow this dating (Tyrell 2015). Of the 65 hairpins recovered at Elms Farm, 31 were of bone. The lack of objects associated with personal adornment from this area of the Roman settlement is notable.

1. RF<27> Bone hairpin (Fig.17). Complete Crummy Type 3A (Crummy 1983, 22) L101.5mm. Fill [1166], Pit [463], Period 6

*Shoes* (incorporating comments by Diana Friendship-Taylor)  
The fragmentary remains of one or more shoes were recovered from waterlogged well fill [705]. At least twenty-nine fragments were recovered in a poor state of preservation, most of which measure 1cm sq. or less. Cut edges were present on only four pieces; most of the fragments have ragged torn edges. The assemblage contains three diagnostic fragments. One small piece possibly derives from the thonged inner sole; on another pairs of holes are linked by the impression of a chord or thong in the leather and the piece is scored alongside the line of holes. A probable upper fragment is also present. It exhibits several oval apertures which appear to be decorative cut-outs. Two further fragments have folded edges but are otherwise undiagnostic and may have been stiffening pieces. There is no evidence for hobnails although several nailed shoes were found nearby at Elms Farm (Friendship-Taylor 2015). There is some evidence that shoes were deliberately placed in wells and waterholes during the Roman period (van Driel-Murray 2001, 337), however survival is unlikely outside of such wet conditions in Britain and it is not possible to determine the mode of deposition in this case.

2. Leather shoe fragments (not illustrated). Probable one-piece shoe with thonged sole. Fragments of sole and upper present. Largest piece measures *c.* 85x70mm. Fill [1173], Well [705], Period 6

#### (FF4) Household items

##### Chain

3. RF<5> Iron loop and chain (Fig. 17). Incomplete. Circular ring (D=26.5mm) with three lengths of chain attached and one length broken off. Chain links formed from single piece of wire with ends bent to form figure of eight, *i.e.* one single and one double loop; the usual form is two double loops but this configuration appears intentional. Each link is 25mm long. ?Post Roman. Fill [24], Pit [152], Period 7

##### Hook

4. RF<35> Iron hook (Fig. 17). Incomplete. Circular section rod, pointed terminal. Opposite end has ancient break L75mm, W55mm Th7mm. Fill [70], Pit [68], Period 5

##### Lock plate

5. RF<32> Iron lock plate (Fig 17). Incomplete. Circular lock plate, D=67mm with raised lip 6mm high. Circular aperture for a large rivet and small rectangular aperture (5x13mm) for the hasp or chain, *cf.* the Lullingstone barrel lock reconstruction front plate (Meates 1987, 96 fig 42; Anstee 2001). Fill [106], Pit [105], Period 6

#### (FF6) Commerce and communication

The small number of Iron Age and Roman coins recovered from this area are of similar issues as those found during the main excavation and their presence does little to add to the interpretations already presented (Hobbs 2015; Guest 2015). The presence of another stylus brings the total for Heybridge to thirty-one. None of these items are illustrated.

6. RF<1> Copper alloy coin. Copper alloy unit of Tasciovanus. British Museum classification: Northern bronze unit of or attributed to Tasciovanus. Probably BM nos.1724–27 Van Arsdell no. 1750–3 Mack no. 171. Wt. 1.1g Diameter 12mm. EW/W. Unstratified
7. RF<2> Copper alloy coin. Incomplete. Copper alloy *nummus* of Constantine I. SOL INVICTO COMITI reverse type PLN in ex. AD307–18 (London). Diameter 23.5mm DAM 6. Layer [16], Unstratified
8. RF<3> Copper alloy coin. Complete. Copper alloy *nummus* of Crispus. BEATA T[RA]NQVILLITAS reverse type. PTR• in ex. Trier AD321. Diameter 21mm. DAM 6. RICvii p194, 347. Layer [16], Unstratified

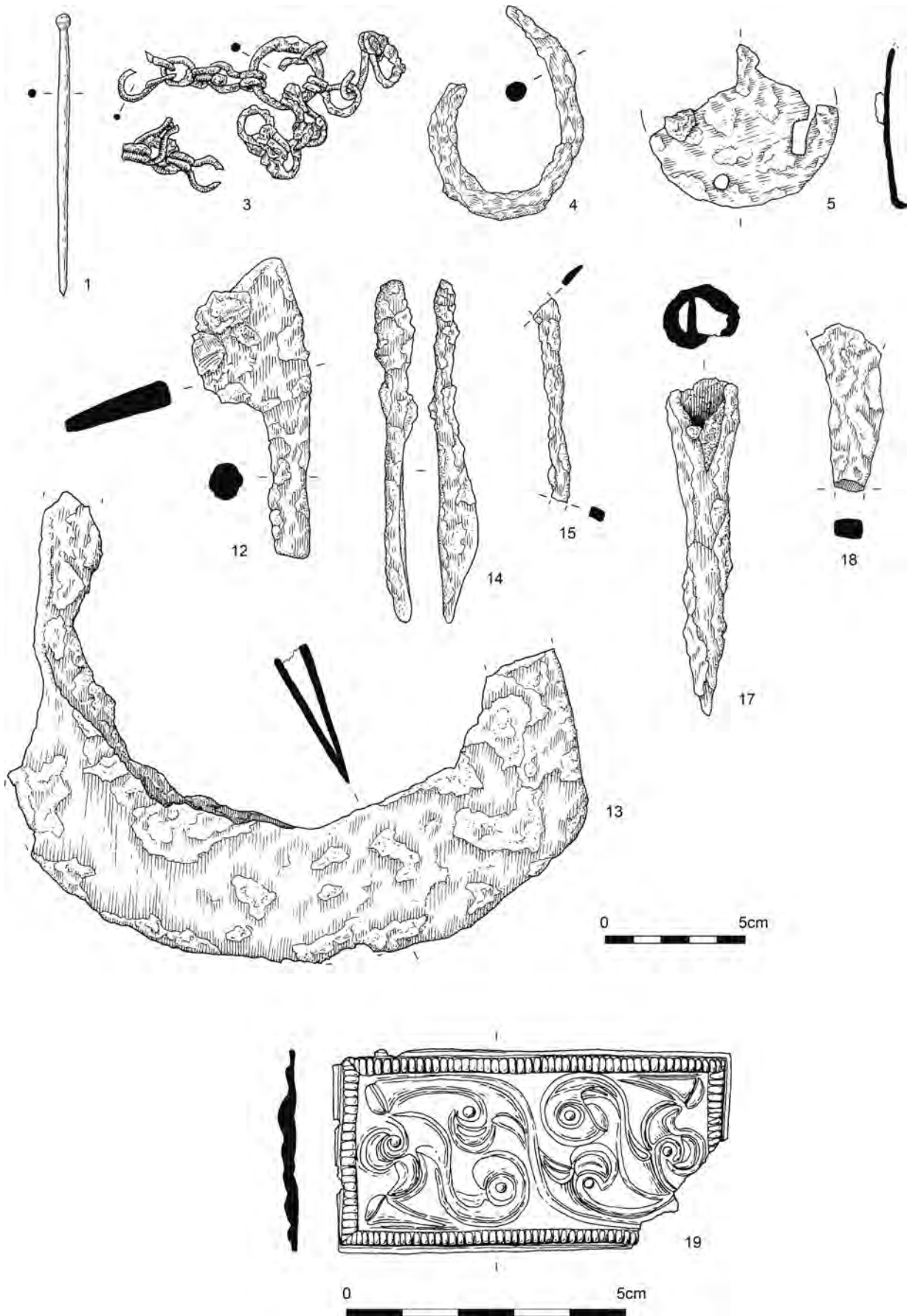


FIGURE 17: Registered finds

9. RF<16> Copper alloy coin. Complete. Copper alloy nummus of Constantine I Victory on prow reverse type, PCONST in ex, Arles AD330 Diameter 18.5mm DAM 5 RICvii p271, 344. Upper fill [145], pit [144], Period 6
10. RF<15> Copper alloy coin. Complete. Copper alloy nummus of Constantine I URBS ROMA wolf and twins reverse type, [---] in ex. AD330–35 Diameter 17mm DAM 6. Upper fill [145], pit [144], Period 6
11. RF<22> Iron stylus. Incomplete. Fragmentary square sectioned rod with differentiated point; other end possibly expands but is broken off. Manning type 2a? (Manning 1985, 85). L118mm Th9mm. Fill [574], Hollow [571], Period 6

### (FF10) Tools

Tools relating to a number of crafts and activities were found and it may be the case that some of the unidentified iron objects are also parts of tools. This small assemblage includes a spade sheath and possible leatherworking slicker, both object types not previously recorded at Heybridge. Several awls thought to be for leather working were recovered during the previous excavations therefore this identification is probable, although the object could also be part of a fire steel.

#### Knife

12. RF<21> Iron Knife (Fig. 17). Incomplete. Square sectioned tang and part of blade, obscured by corrosion product containing mineralised wood. L106mm. Manning Type 13 (Manning 1985, 115). Fill [464], Pit [463], Period 6

#### Spade

13. RF<13> and <12> Iron spade sheath (Fig. 17). Incomplete. Grooved edge and deeply socketed sides to take the wooden blade; sides incomplete although RF<12> may be part of one arm. W210mm, blade depth 51mm, height c.190mm. Fill [70], Pit [68], Period 5

### Woodworking Tools

14. RF<33> Iron ?drill bit (Fig. 17). Incomplete. Mineralised and fragmentary iron bar with expanded, triangular, pointed and slightly concave end. Lc.120mm. Opposite end has a thinner rectangular section. Possibly a drill bit similar to one from Hod Hill (Manning 1985, 26 B51) or a mortise chisel. Fill [1167], Pit [68], Period 5
15. RF<19> Iron ?chisel (Fig. 17). Incomplete. Small chisel with wedge shaped end. L73mm. Similar to small chisels previously excavated (Clifford in prep., fig 545.105). Fill [386], Pit [385], Period 4

### Leatherworking tools

16. RF<34> Iron ?slicker (not illustrated). Incomplete. Rectangular blade with one edge curved ?from use. Remains of paired tangs at either end. L98mm. Similar in form to two examples from Hod Hill (Manning 1985, 39 E1 and E2). Manning notes the possibility of alternative identification as spokeshave, although this type of implement is not known from Roman Britain (Manning 1985, 39). Fill [574], Hollow [571], Period 6

### Other tools

17. RF<31> Iron conical ferrule (Fig. 17). Complete. Sub-circular section spike. Socket contains mineralised wood and exhibits a single nail for attachment to wooden object. L118.5mm D27.5mm. Fill [106], Pit [105], Period 6
18. RF<24> Iron ?tool (Fig. 17). Incomplete. Possible blade/ handle junction. Square sectioned ?tang broken in antiquity with angled trapezoidal element at the opposite end, also broken. Possibly from a bladed tool such as a sickle or reaping hook. L60mm W22mm Th8.5mm. Fill [574], Hollow [571], Period 6

### (FF11) Objects relating to funerary deposits

One cremation burial and one probable pyre flue deposit contained artefacts. The pyre deposit is of Iron Age date (Period 3) while the cremation is Roman; a 2nd–3rd-century

cremation (Cremation 1) at nearby Langford Road contained hobnails, and a further six encompassed structural nails interpreted as the remains of box burials (Langton and Holbrook 1997, 26). In this case the adherent bone suggests the nails derive from pyre debris rather than a box. None are illustrated.

RF<36> Copper-alloy dome headed stud. Fragment, in poor condition. 8.5mm high with a diameter of c.19mm. Probably decorative from a casket or small box. Pyre deposit [21], flue [22], Period 3

RF<37> Copper-alloy ?tacks or droplets, sheet fragments and folded sheet or socketed object, total weight 54g. Poor condition, burnt and fragmentary. Possibly part of the same object. Pyre deposit [21], flue [22], Period 3

Non-registered. Three iron nails with adherent bone fragments, total weight 18.5g. Cremation deposit [47], Burial [52], Period 4

### (FF13) Military

#### Scabbard Mount by Nina Crummy

The mount is a thin rectangular repoussé-decorated plaque of copper-alloy sheet with one corner missing. It measures 71mm by 36mm and is slightly curved on the long axis. Most of the underside is coated with a lead- or tin-based solder. The metal is well-preserved in general but is spotted with corrosion in places, possibly where the metal is thinnest.

The border consists of a beaded frame within a much lower plain moulding. For most of the circumference the edge is carefully trimmed and only rarely does a small amount of flat metal project beyond the outer moulding. The beads of the frame are close-set and usually well-defined and evenly rounded, but in places are more rudimentary. The central panel contains a flowing but symmetrical design of trumpet and cable motifs. At root the motifs are of continental origin and long-lived. They are particularly associated with Late La Tène metalwork, but the trumpet, in particular, is also frequently found both in Britain and other north-west provinces in the Roman period (Kilbride-Jones 1980, 47–54). On this mount the cable motifs have declined into crescents with a small pellet between the arms. The bell-ends of the two innermost trumpets curl to enclose a pellet-in-ring motif.

Decorative plaques or strips with rounded raised decoration of this kind were made by placing a sheet of thin metal over a mould-like wooden block bearing a negative version of the design, and hammering the metal to fit closely and smoothly



PLATE 2: Copper alloy plaque RF26 from pit fill [1161]



into the hollows. The effect was that of a solid casting, but in reality the mounts were extremely light and could be used to decorate portable items without significantly adding extra weight.

Copper-alloy repoussé mounts thus occur on wooden buckets, such as the Iron Age examples from Marlborough, Wiltshire, and Aylesford, Kent, and the pair from an Augustan warrior grave at Fléré-la-Rivière, France (Jope 2000, 93–105; Ferdière and Villard 1993, fig. 1–114). Fragments of similar mounts have also been found in association with the remains of wooden boxes and trays from a number of Late Iron Age and early Roman period graves in south-east Britain, for example, Stanfordbury, the Lexden tumulus at Colchester, and Cremation 13 at Stansted (Stead 1967, 56, no 12; Foster 1986, 95; Havis and Brooks 2004, fig. 136, G–H). In many cases these fittings have marginal lines of bosses that can be seen as the forerunner of the close-set beaded frame.

While the dating of grave finds can usually be estimated with some degree of accuracy, this is not the case with four other La Tène-style casket mounts with repoussé trumpet motifs, all larger than the Crescent Road plaque. Mounts from Elmswell, Yorkshire, Great Tower Street, London, and Winterton Roman villa, Lincolnshire, may all date to the Roman period rather than the Iron Age, and the Winterton fragment was found in association with 3rd-century pottery (Kilbride-Jones 1980, fig 20; Jope 2000, pls 222–3; Stead 1976, 209). The fourth item, from Dowgate, London, was probably mounted on one end of a box with curved lid and is particularly close in design to the Crescent Road plaque. Stratigraphic considerations suggest that it may be of 3rd-century date, though the initial study led to a much earlier date being proposed (Megaw and Merrifield 1969, esp. 154, 159; Jope 2000, 284, pl 223, h–i).

The Dowgate plaque has several rivet or nail holes and had clearly been fixed to wood, but the lack of rivet holes and the solder on the reverse of the Crescent Road plaque imply that it was attached to a metal object, rather than one of wood or leather. As the desirability of decoration that adds little or no weight is equally appropriate in the field of war, and repoussé-decorated copper-alloy mounts are also found on Roman arms and armour from the 1st century BC onwards, a military origin for the Heybridge piece should be considered. Sword scabbards were often ornamented with panels, usually with a beaded border, that depict hunting scenes, militaria, or warlike deities and heroes. Lightweight copper-alloy appliqué also occur on cavalry parade armour such as cuirasses, helmets, and chamfrons, protective leather headgear for the horses, and again many of these plaques have beaded borders like that on the Crescent Road find.

Most of these Roman military mounts do not make use of La Tène style motifs, though the scabbard of the Fulham sword, found in the river Thames, and an early scabbard from Wiesbaden both have elaborate flowing vegetal motifs, fully classical in style but evoking the curvilinear trumpets and rosettes of La Tène decoration (Manning 1985, pls XIX–XX; Feugère 2002, 112). However, many fittings from 2nd- and 3rd-century auxiliary equipment from the Rhineland make use of La Tène scrolled trumpet, cornucopia and triskele motifs, especially in openwork (Oldenstein 1976, Tafn 43, 65, 69, 87) and similar mounts are found in Britain on the

Northern frontier (MacGregor 1976, pl XVI, b; Bidwell 1985, fig 40, 21; Bishop and Coulston 1993, fig 80).

Placing the Crescent Road plaque accurately within this prolonged period of use of these motifs is difficult, but a post-conquest date seems clear from the style of the design, and it may be that the military preference for openwork in the 2nd and 3rd centuries places it in the later 1st or early 2nd century. A date comparable to that of the Dowgate plaque is highly likely, and, though that also remains unresolved, the fact that both pieces come from 3rd-century contexts is a strong argument for considering that they may not have been residual in their contexts.

It is also impossible to identify the Crescent Road mount with certainty as either a civilian or a military object. If not the result of post-depositional stress, the slight curvature might indicate that it was used on a scabbard, though most sword scabbards were of wood with the decorative panels fixed in position by the side binding and by the transverse clips used to attach the scabbard to the belt or baldric, and dagger scabbards were not usually fitted with repoussé appliqué. It may, however, have been attached to a dagger scabbard with metal transverse panels similar to one from London, though those are generally believed to have been left plain (Feugère 2002, 128, fig. 173).

19. RF<26> Copper-alloy scabbard mount (Fig. 17; Plate 2). Fill [1161], Pit [68], Period 5

#### **Animal bone** by Gemma Ayton

The animal bone assemblage consists of 910 fragments retrieved through hand-collection and whole earth samples from most site phases, though the bulk of the assemblage derives from Late Roman features including layers and pits.

The whole assemblage has been recorded, with the more complete specimens recorded in accordance with zoning system outlined by Serjeantson (1996). Wherever possible the fragments have been identified to species and the skeletal element represented. Mammalian elements that could not be confidently identified to species, such as long-bone and vertebrae fragments, have been recorded according to their size and identified as large, medium and small mammal. The state of fusion has been noted as well as evidence of butchery, burning, gnawing and pathology. Tooth eruption and wear has been recorded according to Grant (1982) and all mammalian and avian metrical data has been taken in accordance with von den Driesch (1976).

The bulk of the assemblage is in a moderate condition with some large, but few complete, specimens recovered; of the 910 bone and teeth fragments retrieved, 603 were identifiable to taxa (Table 10).

A range of domestic taxa have been identified including cattle, sheep/goat, pig, horse, dog and domestic fowl, whilst red deer and anuran (frog/toad) are the only wild taxa represented (Table 11).

#### *Phase 2*

Of the fifty-nine fragments of bone recovered from this phase only eleven were identifiable to taxa. The majority of the specimens were recovered from pits [486], [810] and [1034] in the vicinity of the roundhouse remains. Cattle and sheep/goat

Phase	No. of Fragments	NISP	Preservation		
			Good	Moderate	Poor
2—Early-Middle Iron Age	59	11		5	6
3—Late Iron Age	4	0			
4—Late Iron Age- Early Roman	19	16	1	11	4
5—Middle Roman	149	83		36	47
6—Late Roman	665	487	57	395	35
7—Early Saxon	14	6		2	4
<b>Total</b>	<b>910</b>	<b>603</b>	<b>58</b>	<b>449</b>	<b>96</b>

TABLE 10: Quantification of animal bone fragments recovered, NISP (Number of Identifiable Specimens) counts and preservation of identifiable fragments, by phase

Taxa	Phase				
	2	4	5	6	7
Cattle	3	4	50	160	1
Sheep/Goat	3		1	28	1
Pig			1	21	
Horse			3	20	
Dog				1	
Red Deer				8	
Large Mammal	5	11	27	208	4
Medium Mammal			1	37	
Domestic Fowl		1			
Bird				1	
Anuran				3	

TABLE 11: Animal bone NISP (Number of Identifiable Specimen) counts, by phase

are represented by fragments of mandibles and long-bone as well as teeth.

*Phase 4*

Of the 19 fragments recovered from this phase, 16 were identifiable to taxa. There are six fragments of bone from cremation burial [52], including cattle scapula and large-mammal long-bone. These are likely to be food waste associated with cremation ceremony or perhaps ritual offerings.

*Phase 5*

Of the 149 fragments of bone recovered, eighty-nine were identifiable with cattle/large mammal being the most frequently occurring taxa. Most of the bones were recovered from pits to the north of ditch [30/73/129/133/146/276/295]. The assemblage is dominated by non-meat bearing elements, suggesting that primary butchery waste was deposited in the pits with the meatier elements being discarded elsewhere. Cut marks were noted on a large mammal pelvis and a cattle mandible.

*Phase 6*

The majority of the animal bones were recovered from features dating to the Late Roman/Early Saxon period, suggesting a peak of depositional activity in the large pits present to the north of the major east to west boundary ditch of this phase. NISP (Number of Identified Specimen) counts show that

cattle dominate the assemblage followed by sheep/goat and pig (Table 10). MNI (Minimum Number of Individual) counts (Table 12) show that cattle dominate the assemblage though sheep/goat are more frequent than NISP counts suggest.

Taxa	MNI
Cattle	6
Sheep/Goat	4
Pig	1
Horse	2

TABLE 12: MNI (Minimum Number of Individuals) count by taxa for Phase 6

All parts of the cattle carcass are represented, including meat-bearing and non-meat bearing elements suggesting that both primary butchery and meat waste was deposited on-site. Although the sheep/goat and pig assemblages are relatively small, the MNE counts for these two taxa reveal a similar picture (Table 13).

Element	Cattle	Sheep/Goat	Pig
Mandible	9	5	2
Horn Core	3	0	0
Atlas	1	0	0
Axis	2	1	0
Scapula	6	1	0
Humerus	0	1	2
Radius	1	4	0
Ulna	0	0	0
Metacarpal	8	0	1
Femur	3	0	0
Tibia	3	5	0
Metatarsal	10	0	0
Astragalus	3	0	0
Calcaneum	3	0	1
1st Phalanx	4	0	0

TABLE 13: MNE (Minimum Number of Elements) counts for the three main domesticates

Epiphyseal fusion data provides evidence for a mature cattle population (Table 14) with 87% of the herd surviving into adulthood. A mature herd suggests an emphasis on secondary products, such as traction, with less regard for prime meat. A minimal amount of epiphyseal fusion data was available for sheep/goat but, like the cattle data, suggests the presence of an older population.

	Fused	Unfused	Fusing	%Fused
<b>Early Fusing (0–18 months)</b>				
Distal Humerus	2			
Proximal Scapula	5			
Proximal Radius	3			
Proximal Metacarpal	5			
Proximal Metatarsal	11			
Proximal Metapodial				
Proximal 1st Phalange	5			
Proximal 2nd Phalange	2			
<b>Total</b>	<b>33</b>			<b>100%</b>
<b>Middle Fusing (24–42 months)</b>				
Distal Tibia	3			
Proximal Calcaneum	3			
Distal Metacarpal	5	1		
Distal Metatarsal	1			
Distal Metapodial	1	1		
<b>Total</b>	<b>13</b>	<b>2</b>		<b>87%</b>
<b>Late Fusing (42–48 months)</b>				
Proximal Humerus		1		
Distal Radius	2			
Proximal Ulna				
Proximal Femur		1		
Distal Femur		1		
Proximal Tibia	1	1		
<b>Total</b>	<b>3</b>	<b>4</b>		<b>43%</b>

TABLE 14: Epiphyseal fusion data for cattle

Tooth eruption and wear on cattle, sheep/goat and pig mandibles was recorded where possible with reference to Grant (1982). Although the data is minimal, both the cattle and sheep/goat mandibles derive from older animals with a relatively high mandibular wear score supporting the theory of a mature population (Table 15).

Taxa	MWS
Cattle	40
Cattle	45
Cattle	32
Cattle	51
Sheep/Goat	34
Sheep/Goat	34
Sheep/Goat	35
Sheep/Goat	47
Pig	40

TABLE 15: MWS (Mandibular Wear Scores) of cattle, sheep/goat and pig mandibles, recorded according to Grant (1982).

Butchery marks were noted on a number of bones; the most commonly occurring marks were cut and chop marks around the proximal and distal ends of bones. Chop marks are associated with the dismemberment of the carcass whilst the finer cut marks may have been made whilst removing the meat from the bones.

Of note is a concentration of butchered bones, including large-mammal and cattle ribs, long-bones and a scapula, recovered from the bottom fill [1173] of timber-lined well [571] evidently used to dump domestic waste, presumably as it passed out of use. Single fragments of sawn antler tines were recovered from layer [777], final levelling fill [574] in the top of well [571] and the fill of pit [321], all of Late Roman date. These may have been sawn off during the primary butchery stage or represent the utilisation of shed antlers. A further three unworked antler pieces were also recovered from pit [321]. No meat-bearing elements from red deer were recovered; the few bones recovered may have been brought to the site for a specific, secondary purpose or the area may have been used for primary butchery of the deer carcass with the meat bearing bones being deposited elsewhere.

Two measurable bones were recovered, both from cattle and both from Phase 6 (Table 16). These measurements fall within the range of contemporary, native, cattle from Colchester (Luff 1993) and are smaller than the cattle from the Great Holts Farm villa site, Boreham, which are thought to represent imported stock (Albarella 2003).

*Discussion*

While the small and fragmentary assemblages from site Phases 2–5 give only give basic insight into the taxa present, the Period 6 assemblage provides a limited amount of data regarding late Romano-British and husbandry techniques. The adjacent site of Elms Farm produced a contemporary animal bone assemblage; comparison with its analysis (Johnstone and Albarella 2015) suggests animal husbandry regimes are consistent across both. Cattle dominate the assemblage

Species	Bone	GL	Bd	Bp	SD	Withers Height (cm)	Factor
Cattle	Radius	249	60.3	66.8	31.7	107.1	Matolski (1970)
Cattle	Metatarsal	221	48.2	42.5	23	120.4	Fock (1966)

TABLE 16: Metric data (in mm)

on both sites followed by sheep/goat in terms of both NISP counts and MNI. No specialised patterns of waste disposal were apparent and all parts of the carcass are represented. Age-at-death data reflects an older population suggesting that husbandry techniques were geared towards secondary products rather than meat, though it is highly probable that these animals would eventually have been eaten.

At the 1972 Crescent Road site animal bone was only recovered from a few Roman period pits and a well of mid/late 3rd-century date and from five sunken-featured buildings which contained bones and teeth from cattle, horse and pig; however, conditions were generally unfavourable to the survival of bone (Luff 1982 and 1986). Bone preservation at the nearby site at Langford Road (Langton and Holbrook 1997) was also extremely poor due to the decalcified nature of the deposits (Jones *et al.* 1997) and no comparative material was available from this site.

**Worked and Unworked Stone** by Luke Barber

The excavation produced 143 pieces of stone, weighing 36,046g, recovered from thirty individually numbered contexts. Each main stone type has been identified and numbered. A number of types have variations that could represent different outcrops and/or beds within a single outcrop; these have been distinguished by the addition of a letter code to the type number. The assemblage is quantified by type and period in Table 17 and considered under two functional headings: worked objects and miscellaneous unworked pieces.

*Worked stone*

Worked stone consists of just a few different types: all are from querns, whetstones, or both. Querns dominate, but a number of quern fragments have been re-used for sharpening/polishing, something noted in the previous assemblages from the adjacent Elms Farm site. The single amorphous piece of German lava, undoubtedly from a quern, is a surprisingly isolated find (Late Roman pit [463], fill [464]). Lava querns are more numerous in the 1st and 2nd centuries in Essex (Buckley and Major 1983)

and the current fragment may be residual in its Phase 6 pit. In keeping with the later Roman period the remaining querns are all of Millstone Grit and appear as typical flat Roman disc types but few details survive. The most complete example is from a 380mm diameter upper stone measuring 45mm thick at its outer edge (an unstratified find in Trench 1). Another upper stone fragment was recovered from Phase 5 pit [119] and two featureless fragments, also from Phase 5 and measuring 26mm and 41mm thick respectively, came from pit [1008/1010]. Five further fragments of Millstone Grit quern were recovered, all of which have clearly been re-used as sharpening/polishing stones. Four of these (all in the dark Millstone Grit variant: 1b) are from Late Roman Phase 6 deposits and usually show wear on two or more faces. The remaining piece, of the pale variant (1a), is from Phase 5 pit [227]. The re-use of broken quern fragments is well known from the earlier excavations at Heybridge and indeed in Essex as a whole (Major 2015 b). Although this is partly due to the absence of naturally occurring stone in the county, such re-use is also seen in other parts of the country, such as Sussex, even where suitable local stone is more readily available (Barber 2003). Such re-use can therefore perhaps be seen to also represent poorer communities making the most of the items they have at their disposal. Two stones, not previously querns, show signs of having been utilised as whetstones. Phase 5 ditch fill [32] contained an elongated water-worn tabular pebble (49mm+ long with a section c.23 × 6mm) in fine non-calcareous sandstone. Although the piece has no obvious deliberate shaping to it, the faces possess a polish strongly suggestive of use-wear. The other example was recovered from Phase 6 well shaft infill [707] and consists of a grey-buff Sarsen-type sandstone piece with a high degree of polish on two of its faces. These stones are very much in keeping with earlier whetstones/polishing stones from the site (Major 2015c).

**Miscellaneous unworked stone**

Pieces of glauconitic greensand, probably from the Hythe Beds of the Lower Greensand in Kent (Types 2a – 2c), are the

Type	Phase 2	Phase 4	Phase 5	Phase 6	Phase 7, misc Roman & undated	Totals
<b>No. of contexts</b>	<b>2</b>	<b>5</b>	<b>6</b>	<b>14</b>	<b>3</b>	<b>30</b>
Millstone Grit (3 variants, a–c)	–	–	4/648g	4/2,044g	1/712g	9/3,404g
Glauconitic sandstone (3 variants, a–c)	4/100g	9/3,448g	6/720g	62/17,640g	6/3,564g	87/25,472g
Fine non-calcareous sandstone	–	–	1/22g	–	–	1/22g
Rhenish lava	–	–	–	1/26g	–	1/26g
Septaria (2 variants, a–b)	–	–	–	31/4,108g	2/206g	33/4,314g
Tertiary flint	–	7/1,034g	–	–	–	7/1,034g
Sarsen-type sandstone	–	–	–	1/1,010g	–	1/1,010g
Chalk	–	–	–	1/20g	–	1/20g
Chert	–	–	–	3/744g	–	3/744g
<b>Totals</b>	<b>4/100g</b>	<b>16/4,482g</b>	<b>11/1,390g</b>	<b>103/25,592g</b>	<b>9/4,482g</b>	<b>143/36,046g</b>

TABLE 17: Quantification of stone type, material by period

dominant type amongst the unworked stone from the site. The only pieces with signs of human modification consist of accidentally burnt examples. All of the pieces are not only totally irregular but notably weathered too. They do not appear to have been taken direct from a quarry and were more likely collected along the north Kent coast or the lower Medway valley where such pieces can naturally occur. It is likely the material arrived as ships' ballast and was subsequently utilised as building rubble. Certainly this stone type was well represented in the earlier excavations at the site (Major 2015a). The earliest contexts to produce this were fills of Middle Iron Age ditch [823] and pit [1034], the latter of which also contained intrusive Roman tile. Considering the quantities involved it is suspected that all of the greensand in Mid Iron Age features is intrusive Roman material. It is during the Roman period that most of the greensand arrives on site. The few pieces of chert may well have come in at the same time—greensand chert being very commonly present alongside the greensand. Other unworked types all appear in the Roman period, and include a scatter of Tertiary flints, chalk and, most notably, *Septaria* fragments—all of which may have derived from the Essex and Kent coasts or reworked Tertiary deposits. The *Septaria* in the current assemblage fits the typical chronology for the type in Essex—namely being utilised for the first time in the Roman period (Major 2015a). Two pieces (206g) of *Septaria* are the only stone from a Phase 7 Saxon context, post-hole [1206], where they are probably residual.

**Human bone** by Paola Ponce

A significant quantity of burnt human bone was recovered from two individual contexts, fill [21] of Late Iron Age pit or possible pyre flue [22] and fill [47] of Early Roman urned cremation burial [52]. Recording and analysis of the bone followed the procedures outlined by McKinley (2004). The minimum number of individuals (MNI) was assessed by the observation of repeated skeletal elements and evidence of mixed male and female, or juvenile and adult remains. Age estimations were based on epiphyseal fusion and dental development

(Scheuer and Black 2000) and general robustness of the bone fragments. Due to the fragmentary nature of the bone, the age estimation was separated into infant, juvenile, adult, and older adult categories. Sex estimates were not possible due to a lack of sexually dimorphic features preserved. The quantified data is presented in Table 18. Bone colour, a reflection of the oxidation process and indicative of the efficiency of the cremation (McKinley 2004), was assessed with reference to Holden *et al.* (1995a and b).

*Pit / flue [22]*

Pit [22] contained only a small amount (58.0g) of burnt bone from which both identifiable and non-identifiable fragments were recovered. However, the significant truncation of this feature should be noted. The largest fragment retrieved measured 45.5mm. 56.6% of the bone was recovered from the 5–8mm fraction while only 2.8% came from the >30 mm fraction.

Pit [22] exhibited significant variation in the percentage of body areas represented, the greatest percentage of fragments belonging to the lower limbs and amounting to 69.7% of the identifiable material. The least represented area of the body was the upper limbs (1.7%). No repeated elements were evident and the cremation burial is therefore judged to represent a single individual. Due to the incomplete and fragmentary nature of the cremated bone, age was undetermined and evidence of pathology was not found.

*Cremation burial [52]*

The cremation urn placed in pit [52] contained a considerable amount of burnt bone (848.5g). The largest fragment from this assemblage measured 104.2mm. Much of the bone (37.5%) was recovered from the >30mm fraction and the smallest proportion (9.3%) came from the 0–4mm fraction. All body areas were fairly equally represented. The highest percentage of fragments represented belonged to the lower limbs (33.7%). The least represented area of the body was the skull (16.8%). Repeated elements were not apparent and it is

Context Number	Fragment size (mm)	Weight per skeletal element (grams)					% of whole assemblage	Total (grams)	Age
		Skull	Axial	Upper Limb	Lower Limb	Unident			
Pit/flue 22	0–4	–	–	–	–	11.0	18.9	58.0	N/A
	5–8	1.1	5.1	–	10.7	15.9	56.6		
	9–20	0.4	0.1	–	4.8	1.5	11.7		
	21–30	–	0.9	0.5	3.8	0.6	10.0		
	>30	–	0.7	–	0.9	–	2.8		
% of identifiable material		5.2	23.4	1.7	69.7				
Pit 52	0–4	–	–	–	–	78.8	9.3	848.5	Older Adult
	5–8	11.3	35.5	6.6	13.6	142	24.6		
	9–20	32.1	21.4	3.1	20.2	38.4	13.6		
	21–30	20.1	36.5	26	28.7	15.9	15.0		
	>30	31.6	47.5	103.6	128.3	7.3	37.5		
% of identifiable material		16.8	24.9	24.6	33.7				

TABLE 18: Quantification of cremated bone

judged that the cremation burial represented the interment of a single individual.

Age at death is estimated on the presence of a mandibular fragment and the fragments of four lumbar vertebrae. The former was a fragment of right side mandible that exhibited the sockets of M1, M2, and M3 resorbed, indicating that these teeth were lost pre-mortem and a long time before death, which can most certainly occur in old adult individuals. The lumbar vertebrae exhibited degenerative lesions suggestive of osteoarthritis which also occur only in older individuals. Due to the high degree of fragmentation of the elements, age at death was not possible to be narrowed confidently to a more specific age category. Additionally, a further pathology was observed in the 4th lumbar which exhibited a possible compression fracture on the left side of its body suggestive of localised lower back trauma.

### Discussion

These two assemblages of burnt bone would appear to denote subtly different aspects of funerary activity. As such they provide some insight into the practise and rituals of cremation and burial in the Late Iron Age/Early Roman period. That from pit/flue [22], whether an under-pyre flue or simply a pit containing pyre debris, comprises unselected or discarded cremated remains. The material from burial [52] instead comprises that part of the burnt remains retrieved and removed from the pyre site for formal burial elsewhere.

As both assemblages ultimately derive from the same act of burning of the corpse, they reflect the same pyre technology. Both deposits exhibited a process of poor oxidation created by burning at a low temperature (*c.* 300° C) which results in a distinctive orange/brown colour (unburnt) bone colour (Holden *et al.* 1995a and b). As stated by McKinley (2008) the efficiency of oxidation depends on a number of intrinsic and extrinsic variables inherent of the pyre cremation. At Crescent Road, it can be hypothesised that the temperature maintained across the pyres was not constant or that the wood supply used to build the pyres was insufficient. It can also be suggested that the duration of the pyre fire was not sufficiently long to achieve an efficient burn or that the weather (wind, rain) played a role. Other variables, such as the arrangement of the body, whether the individuals were laid on an *ad hoc* built bed, wrapped up and bound, extended with skeletal elements on the periphery of the pyre or crouched, cannot be disregarded as influential upon the oxidising process.

At Elms Farm, the burnt bone recovered from pyre sites and burials of Late Iron Age to earlier Roman date presented a wide variation of colours ranging from red/orange (very poor, *c.* 300° C) to white (excellent, *>c.* 600° C) (Duhig 2015). The number of cremation contexts was much larger compared to Crescent Road and the difference between the sites is likely to be simply due to the differing sample sizes, with variable efficiency of burning being the norm across the settlement. It is noted that at Langford Road, the four burials examined were judged to exhibit good efficiency of cremation (McKinley 1997, 30).

The flue [22] assemblage potentially represents only the component of burnt remains that fell through the pyre and accumulated in the flue, so being preserved; the remainder of the surface spread of pyre debris subsequently being selectively removed for burial, disposal and/or simply left *in situ* at

the pyre site for reincorporation into the land. As such, it is unlikely that the representation of body areas in this truncated feature is meaningful.

As all skeletal elements were represented in the undisturbed urned remains in [52], it does not appear that the bone was selectively retrieved from the pyre. On the contrary, it can be hypothesised that all burnt bone—or the majority of it—was recovered, but not fully preserved. Indeed, as the weight of burnt bone recovered from this pit was relatively close to the 1,001.5 to 2,422.5g range expected for a modern adult cremation (McKinley 1993), the degree of preservation and fragmentation may have played a role in the differential survival of bone according to skeletal areas.

These results correlate with Elms Farm where weights of bone recovered from individual cremations burials ranged from a few grams up to 1,800g (Duhig 2015), thus suggesting differences in the degree of preservation, natural fragmentation, disturbance/truncation and erosion other than a careful selection of body parts. In contrast, at Langford Road the average weight of bone from undisturbed burials was 753.8g which represents approximately 78% of the maximum expected for an adult cremation (McKinley 1997). Lower weights of bone recovered for Romano-British burials are not untypical and along with differences in preservation, full recovery of bone might have not been considered necessary for burial.

### Iron nails by Trista Clifford

A total of 147 iron nails were recovered and were catalogued following the ECC typology used for Elms Farm (Tyrell 2015). Virtually all the nails are in a mineralised and fragmentary condition rendering identification of type impossible for 41% of the assemblage. Type A and probable type A nails represent 20% of the assemblage, comparable with 19% from the larger Heybridge assemblage (Tyrell 2015). Other types include B (11%) and J (10%); Types C, CC, HH, M, R, U, V and W are also present, although mostly as isolated single finds. No hobnails were recovered. Lengths of complete nails range from 23mm (Type W) to 90mm (Type A). The majority of nails would have been suitable for structural use, although the single Type HH with its spherical head was probably designed to be decorative. The very large nails of 80mm+ length may have been used for larger structural timbers in buildings, whilst the smaller ones would have come from caskets, boxes or furniture.

### Glass by Luke Barber

Twenty-four shards of glass, weighing 24g, were recovered from sixteen contexts, including two very small pieces from bulk soil samples, as well as a single registered find. Two fragments are of late post-medieval date, one of which was intrusive in Phase 5 ditch [30]. This material is not considered further here.

The vast majority of the assemblage is of Roman date and can be split between vessel and window glass. Despite vessel glass making up the majority of the assemblage at Elms Farm (Compton, Price and Worrell 2015) it is notably sparse in the current group. Just three definite pieces of vessel glass are present. The largest of these consists of a part of a blown beaker with simple *c.* 80mm diameter everted rim in colourless glass (Phase 6 ditch [45]). The other two pieces are in pale blue-green glass and are from cylindrical vessels of uncertain form (general Roman pit [621] and Phase 6 well [571]). The

tiny intrusive chip from Phase 3 pit/pyre flue [22] could be another piece of vessel glass, but it is too small to be certain.

The majority of the assemblage consists of window glass (18 shards/151g). With one exception, all is of cast matt-gloss glass, more typical of the 1st to 2nd centuries. Despite this the vast majority was recovered from mid to Late Roman deposits (Phases 5 to 6) suggesting the material was old at the time of deposition. It may well have glazed a building of some substance for a considerable period of time before refurbishment or demolition of the structure introduced the glass to the archaeological record. A similar situation was noted at Witham (Turner 1999). The earliest window fragments were recovered from Phase 4 ditch [381]. These consist of three fresh conjoining pieces of notable size (36g) from a matt-gloss pane in colourless glass with rounded cast straight edge. The thickness of this singular pane is variable, ranging from 2.5mm to 4.5mm. Phase 5 deposits produced seven window fragments (47g). Three of these (16g), from pit [68], are also in colourless glass, but the same feature also produced a small window fragment (1g) in blue-green glass. Pits [152] and [1008] produced a further three pieces (30g) of blue-green window glass. Phase 6 contexts accounted for six further pieces (64g), the majority of which was recovered from pits [105] and [463]. The shards are mainly in blue-green glass, but pit [463] contained a gently rounded corner in a pale green glass. Ditch [860] produced a single fragment in colourless glass. The remaining pieces are from contexts that cannot be allocated to any particular phase or that are intrusive; a 2g chip of 1.2mm thick blue-green glass in Phase 1 or 2 pit [838] is the only potential gloss-gloss window glass from the site, but it could well be from a square-sectioned bottle and cannot be classified with certainty.

#### **Slag** by Luke Barber

Forty-four pieces of slag (1,302g) were recovered from eight contexts. The earliest was recovered from Phase 2 pit [1158] and consists of six pieces (200g) of light grey vesicular fuel ash slag. The material does not appear to be associated with metalworking and could have been created by any number of high temperature activities, including domestic hearths.

Phase 5 pit [68] produced five small amorphous pieces (14g) of burnt silty clay that may be from a hearth lining, though none of the pieces have adhering slag. Late Roman Phase 6 deposits produced a larger quantity of slag including a similar pale fuel ash slag to that noted in Phase 2 (most notably from ditch [941], which produced 28 pieces weighing 612g). Late Roman final infill/levelling deposit [574] in well [571] produced a definite piece of iron smithing waste (244g) and pit [1080] a further piece (194g).

The negligible assemblage of slag would suggest high temperature activity was occurring from an early date, but secondary iron working is only represented in the Late Roman deposits. Even so the quantities involved are insignificant, though to what extent this is a collection bias is uncertain.

#### **Plant macrofossils and wood charcoal** by Lucy Allott

Bulk soil samples were collected from various archaeological deposits, including cremation deposits, a dumped slag deposit and corn-drier and timber-lined well fills. Details of all samples are listed in the archive while this report considers

three productive samples, two from well feature [571] and one from possible pyre flue or pit [22]. Charred and uncharred plant macrofossils were present in each of the deposits although only the waterlogged well deposits were sufficiently anoxic to preserve uncharred organics that can be considered contemporary with their infilling. The sample retrieved from the infill of corn-drier [708] notably did not produce plant remains and therefore is not considered here. Charcoal analysis was undertaken following Gale and Cutler (2000). Plant macrofossils and woody taxa in the charcoal were identified through comparison with reference specimens and atlases (Cappers *et al.* 2006; Jacomet 2006; NIAB 2004; Schweingruber 1990). Nomenclature follows Stace (1997).

#### *Pyre Flue/Pit [22] (fill [21])*

Charred plant macrofossils were uncommon amounting to a single unidentifiable round seed and indeterminate charred plant remains. Wood charcoal fragments were significantly better represented although oak (*Quercus* sp.) was the only taxon recorded. Oak would have been eminently suitable as both the fuel and construction timbers of the pyre and is a common component of funerary related features at other sites in the area.

#### *Well Feature [571]*

Rich assemblages of uncharred plant macrofossils were present in well deposits [705] and [1173]. These comprise a few shrub and tree taxa such as bramble/raspberry (*Rubus* sp.), elder (*Sambucus nigra*) and silver birch (*Betula pendula*), but the vast majority are weeds that thrive in several different habitats including cultivated ground, waste ground particularly associated with settlements and grassland vegetation. These weeds include sorrel/docks (*Rumex* spp.), goosefoot (*Chenopodium* sp.), knotgrass (*Polygonum* sp.), stinking chamomile (*Anthemis cotula*), common chickweed (*Stellaria media*), black nightshade (*Solanum nigrum*), henbane (*Hyocyamus niger*), yarrow (*Achillea millefolium*), possible prickly sow-thistle (*Sonchus* cf. *asper*), hawkweed oxtongue (*Picris hieracioides*), lesser stichwort (*Stellaria graminea*) and selfheal (*Prunella vulgaris*). In addition the assemblage contained meadow/creeping/bulbous buttercup (*Ranunculus acris/bulbosus/repens*), sedge (*Carex* sp.) and possible hemlock water dropwort (*Oenanthe* cf. *crocata*) which are more commonly found on wet lowlying marsh or in wet meadows. The assemblage resembles the fill of a Roman well of similar date and construction recorded at Langford Road, Heybridge (Jones *et al.* 1997). There is less emphasis on taxa from wet ground and more emphasis on crop weeds and ruderals in the Crescent Road assemblage. Neither well feature contained crop seeds or chaff which may imply that much of the assemblage has accumulated via natural processes from plants in the near vicinity of the well. There is, however, a notable absence of stinging nettle achenes in the Crescent Road assemblage (although abundant at Langford Road). This taxon thrives on nutrient rich ground and is a common component of waste places associated with human and animal activities.

#### **DISCUSSION**

The discoveries made by this excavation are considered with particular reference to the three sites in its immediate vicinity,

Crescent Road 1972, Langford Road and Elms Farm, with further allusion to other sites as appropriate. Indeed, the site content and sequence is noted to have particularly close similarities with that of Langford Road, as perhaps might be expected where both sites are located beyond the Iron Age and Roman settlement, on the opposite side of the relict water channel and on the higher gravel terrace.

### **Middle/Late Bronze Age**

Although only a single example, the Late Bronze Age cremation burial is almost certainly part of a scattered, or perhaps intermittent clustering, of mortuary activity present across the gravels above the river floodplain and north of the relict watercourse that was located immediately south of the site. Further components of this land use, presumably within an open landscape, have been found within the Elms Farm excavation, in Area W (aka 1993 site), to the west of Crescent Road, where remains of a single barrow and outlying burials were recorded (Atkinson and Preston 2001, 48–9). Indeed, this mortuary use is only a small part of a far more extensive spread of Bronze Age burials and earthwork monuments that extend up the Chelmer valley; elements of which have also been investigated at Langford Hall Reservoir (Roy and Heppell 2014) and Old Hall Farm, Boreham (Germany 2014). Consideration of the wider distribution range and density of barrow remains, as discerned from cropmark sites in the valley, forms part of the Old Hall Farm, Boreham study. It therefore seems likely that Bronze Age burials and other monuments (*e.g.* henges and cursuses) were extensively distributed across the landscape above the estuary, river and floodplain.

### **Early/Middle Iron Age**

Early to Middle Iron Age features, and the diagnostic pottery in their fills, are surprisingly numerous. Comprising remains of three or possibly four roundhouses, small pits, post-holes and a fence or drain, they imply an area of probably unenclosed settlement occupied the land north of the relict watercourse. Located on the higher and better-drained gravel terrace, it is conjectured that these occupation remains constitute the original Iron Age settlement focus of this locality, prior to the establishment of the Late Iron Age settlement and religious complex excavated on the other side of the relict channel at Elms Farm. Indeed, Early to Middle Iron Age remains were scarce amongst those of the later settlement but similarly conspicuous at Langford Road where part of at least one roundhouse (possibly three), pits and ditches were identified and interpreted to constitute settlement within an emergent organised landscape (Langton and Holbrook 1997, 17). In the 1993 Elms Farm Area W, to the west of Crescent Road, parts of a field system predating those of the Late Iron Age and Roman periods are postulated to be further parts of the Early to Middle Iron Age land use on the upper terrace (Atkinson and Preston 2001, 49–50 and fig. 2).

Although it is difficult to determine the longevity of this occupation, at least one episode of roundhouse replacement is evidenced. If curving gully/ditch fragment [823/864] is indeed that of a roundhouse, it is possible that it and B2 (and possibly others beyond the excavated area) were positioned alongside one another above and aligned on the watercourse, this landscape feature functioning both as a settlement boundary and a water source. This positioning is perhaps reminiscent

of the Little Waltham Middle Iron Age settlement in relation to the river Chelmer (Drury 1978) where roundhouse ring-ditches were noted to be of comparable size at around 10–13m diameter. Other than pottery, there are few artefacts indicative of occupation (in contrast to Little Waltham)—either in the roundhouse ring-ditches or the pits and post-holes in association—virtually all seeming to be either residual earlier flintwork or else intrusive later brick/tile.

### **Late Pre-Roman Iron Age**

The earlier Iron Age settlement activity appears to have ceased, perhaps as early as 300 BC, and the land either lay unused or else was cultivated. This absence of subsequent occupation here may suggest that such activity shifted from the higher gravel terrace onto the lower-lying ground on the opposite side of the relict watercourse, where Late Iron Age remains were found to be prolific within the Elms Farm excavation. The reasons for this postulated shift are unclear, though the establishment of a shrine on the lower ground, which later developed into the Roman temple complex (Atkinson and Preston 2015a, 87–105), may have provided some impetus.

If the tentative interpretation of feature [22] is correct, then it is reasonable to postulate a similar Late Iron Age land use for this location as that determined for Elms Farm Area W, the investigated part of the ‘hinterland zone’ north of the relocated Late Iron Age settlement. Area W contained part of an extensive rectilinear enclosed field system first established in the Late Iron Age. Although interpreted to principally function as arable fields—most likely for cereal production—one large in-field just beyond the watercourse contained the remains of twenty pyre sites (Atkinson and Preston 2015a, 118–121). Each pyre site was represented by an elongated cut, often with a distinctive side arm or ‘notch’, on average *c.* 1.3m long by 0.5m wide and 0.25m deep. Each contained a charcoal-rich fill that included pebbles, pottery, metalwork and occasional small bone fragments and flecks, all of which were burnt. Interpreted as the bases of under-pyre ventilation flues, with all above-ground traces of the pyres having been removed by subsequent agriculture, they define a linear arrangement that coexisted within the contemporary field system. In addition, a number of related pits containing lesser amounts of burnt debris were identified in the same proximity of these pyre sites. Feature [22], on the evidence of its burnt contents, is postulated to be either a pyre flue, albeit lacking the side ‘notch’, or else a pyre-related pit. In either case, it can be further conjectured that the field system seen in Area W extended eastwards alongside and above the relict watercourse and that various mortuary rites were undertaken within it—presumably purposefully within sight of the relocated settlement. However, no such vestiges of a Late Iron Age enclosed landscape were identified at the 1972 Crescent Road site (Wickenden 1986, fig.3).

### **Latest Iron Age/Early Roman**

The low quantities and range of finds retrieved from features of Early Roman date suggest that this location was outside of the settlement area as excavated to the south at Elms Farm. This said, the mixture of pits, and structures indicative of crop processing and craft manufacture, together with occasional cremation burials, is strikingly similar to that of the backland activity recorded in the Late Iron Age/Early Roman transition period strip plots along the southern periphery of the settlement



(Atkinson and Preston 2015a, 45 and 47). Consequently, it is speculated that the portion of land plot exposed here also constitutes a backyard location within an outlying, and north-facing, smallholding. Narrow and shallow ditches of Late Iron Age/Early Roman date similarly define 28m-wide strip plots at Langford Road that are conjectured to have an agricultural function (Langton and Holbrook 1997, 19–21). It is also possible that Period 3 ditch [154] on the 1972 Crescent Road (Wickenden 1986, fig. 4) and further ditches on the 1993 Holloway Road (Barber 1994) sites are further parts of this. This suggests that a fairly cohesive and extensive landscape of these strip plots occupied the upper gravel terrace above the palaeochannel. Further similarity of land use is provided by the occurrence of a single isolated, probably 2nd-century, cremation burial on the boundary of one such plot at Langford Road (Langton and Holbrook 1997, 23). As on the southern peripheries of the contemporary settlement at Elms Farm, the occurrence of cremation burials, either singly or in small groups of two or three, is a typical ‘backland’ phenomenon.

### Middle Roman

The clear replacement and disregarding of the Early Roman plots, and the imposition of a relatively substantial new boundary ([30/73/129/133/146/276/295]), indicate a probably major and extensive reorganisation of the enclosed landscape north of the relict watercourse. The employment of bigger ditches might imply the laying out of larger fields and, despite its smaller size, parallel ditch [1078] just might delineate the southern limit of one of these. However, the alignment of the boundary ditch does not obviously conform to the local topography. Given that the relict watercourse evidently ran south from the Langford Road excavation and turned eastward just below the gravel terrace on which Crescent Road sits, it is possible that, rather than a part of an enclosure system, this ditch was instead a drain into it. This could be taken to suggest that a substantial structure, such as a villa-like dwelling, was located to the north-east. However, no revetment or lining of the ditch sides was identified to substantiate this postulated function. Whatever the case, land-use change was brought about. Although pits continued to be dug, no further crop processing or manufacturing activities can be discerned; it seems likely that the imposition of this boundary or drain disrupted the previous land use.

This land organisation change was also apparent at Langford Road, where its strip plots gave way to a single boundary, probably in the later 2nd century, which is speculated to have enclosed a single farmstead (Langton and Holbrook 1997, 23), and perhaps at Holloway Road where late 2nd–3rd-century large enclosure ditch [21] is also on a differing alignment (Barber 1994).

This re-organisation may coincide with the appearance of more organised funerary activity in this landscape. A small but seemingly more formal and richly furnished cemetery of seven or eight cremation burials, spanning the mid to late 2nd century, was excavated only 20m to the south-east of the current site, within Elms Farm Area R (Atkinson and Preston 2015a, 126–8). Located on the north bank of the relict watercourse, this funerary activity occupies the same wider landscape as the Crescent Road site, as does the small ‘family cemetery’ group of late 2nd-century date at Langford Road (Langton and Holbrook 1997, 23–27).

A marked increase in cultural assemblages present in the fills of Period 5 features is worthy of comment. This increase in both quantity and range of artefacts is most obvious in the incidence of Roman pottery and brick/tile. However, it is also apparent in the much more modest but equally significant occurrence of iron nails, *opus signinum*, tesserae, roller-stamped daub and especially the appearance of window glass. In this, the current Crescent Road site shares similarity with Elms Farm Area R, excavated immediately to its south; particularly in the Middle to Late Roman periods. Here, a similar range of building debris was deposited along and into the north side of the adjacent relict watercourse. While separated by the upper gravel terrace step, these two areas north of the watercourse should perhaps be regarded as parts of the same peripheral settlement landscape.

As might be expected, this is also the period when the incidence of such materials increased at Elms Farm, particularly in Area R closest to Crescent Road (Atkinson and Preston 2015a, 66). The mid Roman relative proliferation of both ceramic and non-ceramic building materials here may have been the result of the demolition of a building of some importance in the vicinity and the reuse and/or dispersal of the resultant debris. Wickenden has previously speculated that such material might derive from a masonry *mansio* (1986, 64), but no substantiating evidence is forthcoming from Crescent Road.

The lack of items of personal adornment amongst the registered finds retrieved from the Roman phases of site use is perhaps notable in comparison with Elms Farm, though equally perhaps to be expected of a peripheral settlement location seemingly lacking domestic occupation from the Late Iron Age onwards. The presence of the highly decorative plaque, that once embellished an item such as a dagger scabbard, is interpreted as the result of casual loss and is perhaps the site’s one reminder that it was part of a wider and substantial settlement that acquired and consumed a range of high status commodities sourced from the wider Roman empire, as well as locally and regionally within Britain.

### Late Roman

The Late Roman remains attest to the further replacement or reorganisation of enclosed landscape and, perhaps slightly oddly, a reversion to an alignment in accordance with the topography. The major east to west boundary imposed in this phase is the first to divorce land use further north from the relict watercourse. The reasons for the imposition of this substantial ditch are unclear, the land naturally draining into the watercourse just beyond the gravel terrace edge. Land use to its north appears sparse, though the presence of well [571] would seem to infer occupation activity, perhaps as late as the 4th century when disuse deposits accumulate within it. The occasional pits, all relatively large in size, seem to reflect a general trend evident for the Late Roman period settlement at Elms Farm for decreased frequency, increased size and, again, increased quantity and range of cultural debris deposited in them. However, there appears to have been little tangible land-use activity at Langford Road (Langton and Holbrook 1986, 28–9), the well there infilling from the mid 2nd century onwards, which may indicate contraction of settlement activity southwards toward its core, with that at Crescent Road being somewhat peripheral by this time.

South of the major ditch, a new land entity alongside the watercourse was created, straddling the gravel terrace step. Limited to the incidence of a single large pit, use of this relatively narrow strip is not demonstrable but would seem to have been marginal to both the main settlement to the south and useful farmland to the north.

Although there was no indication that its sides had ever been shored, it is tempting to speculate that the major east to west Late Roman boundary ditch continued as, or at least fed into, the wood-lined ditch [25271] in Elms Farm Area R to its south-east. Previously speculated to have functioned as a leat that cut across the bend in the relict watercourse (Atkinson and Preston 2015a, 52), this might be construed to mirror the, albeit apparently mid Roman, angled course of ditch [21] at Holloway Road.

Evidence for ritual behaviour, in the form of 'placed' or 'structured' deposits, is slight compared to that for Elms Farm (Atkinson and Preston 2015a, 105–115) and largely confined to the Late Roman period. Only the presence of distinctive ceramic face vessel sherds and conspicuously large groups of coins and pots deposited in wells and pits hint at such practices, perhaps closure rituals, undertaken outside the settlement core. This low level incidence presumably mirrors the relatively low density of occupation remains present within the site and its distance from the religious focus at Elm Farm.

### Early Saxon

Indication of Early Saxon land use is minimal, being restricted to the incidence of only a small tentative non-dwelling structure and a single pit within the excavated area, and a further post-hole found during the watching brief. This apparent lack of settlement activity is in distinct contrast to its occurrence at the adjacent 1972 Crescent Road site (Drury and Wickenden 1982) and, perhaps, to the south and west within the Elms Farm excavations (Atkinson and Preston 2015a, 56–58), although again finds parallel at Langford Road, where only a single pit, a few post-holes and a late infill/capping deposit in the top of the earlier Roman well were identified (Langton and Holbrook 1997, 29). No Saxon remains were identified at Holloway Road.

From this collective view, it is perhaps reasonable to postulate that Early Saxon period settlement was generally dispersed across this landscape, perhaps with mostly single or paired dwellings, presumably both of sunken-featured and post-built construction, being sited within the remnants of the former Roman landscape. At other Early Saxon occupation sites associated remains are limited to a few pits and possibly the odd well and/or other ancillary structure (*e.g.* Newhall, Harlow; Slough House Farm, Heybridge; Snape, Suffolk), or else to deposition in the tops of remnant Roman features (*e.g.* Elms Farm and Langford Road, Heybridge). While the relatively high density of the 1972 Crescent Road site when viewed in isolation might seem to be more reminiscent of at least parts of sites such as Mucking or West Stow (Hamerow 1993; West 1985, fig. 7), the insight gained from the current Crescent Road and the other surrounding sites is that this is misleading—perhaps being the effect of building replacement at this particular location close to the old watercourse.

### CONCLUSION

This Crescent Road site is one of a number on the peripheries of Elms Farm that provide insights into the nature of land use surrounding the Late Iron Age, Roman and Saxon settlements. Its publication, following shortly on from that of the Elms Farm excavation, pulls together and overviews the results of the other outlying northern investigations undertaken in the 1970s to 2000s. More recently, the Crescent Road vicinity of Heybridge has seen further archaeological work and is perhaps likely to do so for some time in response to its continuing development growth.

While clearly closely associated with the settlement on the lower terrace, at Elms Farm, the site shares its land use nature and development with these other northern periphery sites and with the so-termed 'hinterland zone' of Elms Farm Area W. Collectively, they demonstrate lower density of occupation and less deposition of cultural debris across 'in-fields' in which a range of activities are pursued—agricultural, processing, production and funerary. Additionally, the evidence from this site suggests that settlement at this location began in the earlier Iron Age, albeit perhaps only as a farmstead on the upper terrace edge.

It is perhaps time to integrate the collective results of the Elms Farm/Crescent Road vicinity with those of Heybridge Hall and the Chalet site (Newton 2008), and with the understanding of landscapes further east alongside the Blackwater Estuary (Wallis and Waughman 1998) and north up the lower Chelmer Valley (Germany 2014; Gilmour 2013), in order to develop a greater appreciation of the complex and multifaceted nature of late prehistoric to early medieval land use within this mid eastern part of Essex.

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### BIBLIOGRAPHY

- Albarella, A. 2003, 'Animal Bone', in Germany, M., *Excavations at Great Halls Farm, Boreham, Essex, 1992–4*, E. Anglian Archaeol. 105, 193–200
- Adkins, L. and Needham, S. 1985, 'New Research on a Late Bronze Age enclosure at Queen Mary's Hospital, Carshalton', *Surrey Archaeol. Colln.* 76, 11–50
- Anstee, J.W. 2001, 'The examination, interpretation and replication of an iron lock from Lullingstone Roman villa', *Antiq. J.* 81, 395–400
- Atkinson, M. and Preston, S.J. 1998, 'The Late Iron Age and Roman Settlement at Elms Farm, Heybridge, Essex, Excavations 1993–5: An interim Report', *Britannia* 29, 85–110
- Atkinson, M. and Preston S.J. 2001, 'Prehistoric settlement and burials at Elms Farm, Heybridge', *Essex Archaeol. Hist.*, 3rd Ser., 32, 42–74

- Atkinson, M. and Preston S.J. 2015a, *Heybridge, a Late Iron Age and Roman settlement: excavations at Elms Farm 1993–5, Volume 1*, E. Anglian Archaeol. 154
- Atkinson, M. and Preston, S.J. 2015b, *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5, Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1>> (Accessed 29 June 2017)
- Barber, A. 1994, *Holloway Road, Heybridge, Maldon, Essex. Archaeological Watching Brief*, Cotswold Archaeological Trust unpubl. report 94162
- Barber, L. 2003. 'The Geological Material', in Griffin, N., *Excavations at Roundstone Lane, Angmering, West Sussex*, Archaeology South-East unpubl. report, Project 1333
- Barker, B. 2005, *Oak Tree Meadow, Heybridge, Essex*, Essex County Council Field Archaeology Unit unpubl. report 1233
- Biddulph, E. 2007, 'Strood Hall (Sites 9 and 44)', in Biddulph, E., Jones, G.P. and Stansbie, D., 'Late Iron Age and Roman pottery', in Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A., *A slice of rural Essex: archaeological discoveries from the A120 between Stansted Airport and Braintree*, Oxford Wessex Archaeology Monogr.1, CD-ROM
- Biddulph, E., Compton, J. and Martin, T.S. 2015, 'The Late Iron Age and Roman Pottery', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5, Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.biddulph1>> (Accessed 12 July 2017)
- Bidwell, P.T. 1985, *The Roman fort of Vindolanda at Chesterholm, Northumberland*, HBMCE Archaeological Report 1 (London)
- Bishop, M.C. and Coulston, J.C.N. 1993, *Roman military equipment* (London)
- Bond, D. 1988, *Excavation at the North Ring, Mucking, Essex: A late Bronze Age Enclosure*, E. Anglian Archaeol. 43
- Bond, D. and Barford, P.M. 1988, 'The Fired Clay Objects', in Bond, D., *Excavation at the North Ring, Mucking, Essex: A Late Bronze Age Enclosure*, E. Anglian Archaeol. 43, 37–41, 49–51
- Braithwaite, G. 2007, *Faces from the past: a study of Roman face pots from Italy and the western provinces of the Roman Empire*, Brit. Archaeol. Rep., Int. Ser., 1651 (Oxford, Archaeopress)
- Brooks, H. 2015, *Archaeological trial-trench evaluation: land rear of 15 Crescent Road, Heybridge, Essex*, unpubl. Colch.Archaeol. Trust report 871
- Brooks, H. and Holloway, B. 2007, *Iron Age, Roman, medieval and post-medieval remains at Heybridge Hall, Heybridge, Maldon, Essex: evaluation. September 2007*, unpubl. Colchester Archaeol. Trust report 439
- Brown, N. 1986, 'The prehistoric pottery', in Wickenden, N.P., 'Prehistoric settlement and the Romano-British small town at Heybridge, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 17, 31–32
- Brown, N. 1988, 'A Late Bronze Age enclosure at Lofts Farm, Essex', *Proc. Prehist. Soc.* 54, 249–302
- Brown, N. 1995, 'Neolithic and Beaker Pottery', in Wymer, J. and Brown, N., *North Sboebury: settlement and economy in southeast Essex 1500BC–AD1500*, E. Anglian Archaeol. 75, 74–76
- Brown, N. 1995, 'Ardleigh reconsidered: Deverel-Rimbury pottery in Essex', in Kinnes, I. and Vardell, G. (eds), *Unbaked Urns of Rudely Shape: Essays on British and Irish Pottery for Ian Longworth* (Oxford, Oxbow Books), 123–135
- Brown, N. 1997, 'Prehistoric Pottery', in Langton, B. and Holbrook, N., 'A prehistoric occupation and burial site at Heybridge: excavations at Langford Road', *Essex Archaeol. Hist.*, 3rd Ser., 28, 32–33
- Brown, N. 2001, 'Pottery', in Atkinson and Preston, S., 'Prehistoric settlement and burials at Elms Farm, Heybridge', *Essex Archaeol. Hist.*, 3rd Ser., 32, 57–67
- Buckley, D.G. and Hedges, J. 1987, *The Bronze Age and Saxon Settlements at Springfield Lyons, Essex: an interim report*, Essex County Council Occas. Pap. 5 (Chelmsford)
- Buckley, D.G. and Major, H. 1983, 'Quernstones', in Crummy, N., *The Roman small finds from excavations in Colchester, 1971–9*, Colchester Archaeol. Rep. 2 (Colchester), 73–76
- Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006, Digital Seed Atlas of the Netherlands. Groningen Archaeological Series 4 (Netherlands, Barkhuis)
- Champion, T. 1980, 'Settlement and environment in later Bronze Age Kent', in Barrett, J. and Bradley, R. (eds), *Settlement and Society in the British Later Bronze Age: part 1*, Brit. Archaeol. Rep., Brit Ser., 83(i), 223–246
- Champion, T. 2014, 'Food, Technology and Culture in the Late Bronze Age of Southern Britain: Perforated Clay Plates of the Lower Thames Valley', *Proc. Prehist. Soc.* 80, 279–298
- Compton, J. 2002, *Crescent Road, Heybridge (HYCR01), Pottery Summary*, unpubl. Essex County Council Field Archaeology Unit report
- Compton, J., Price, J. and Worrell, S. 2015, 'The Roman Glass', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Volume 2, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.compton2>> (Accessed 12 July 2017)
- Croom, A.T. 1997, 'The Roman pottery', in Langton, B. and Holbrook, N., 'A prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road, 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 33–35
- Crummy, N. 1983, *The Roman Small Finds from Excavations at Colchester 1971–79*, Colch. Archaeol. Rep. 2 (Colchester Archaeological Trust)
- Dickinson, B.M., Hartley, B.R. and Pengelly, H.W. 2004, 'Fabric Supply: Class S, Samian wares', in Cool, H.E.M., *The Roman cemetery at Brougham, Cumbria, Excavations 1966–67*, Britannia Monogr. Ser. 21 (London) 345–50
- Doherty, A. 2017, 'Roman pottery', in Atkinson, M., 'An Early Roman cremation cemetery at Haslers Lane, Great Dunmow', *Essex Archaeol. Hist.*, 4th Ser., 6, 222–226
- Drury, P.J. 1978, *Excavations at Little Waltham 1970–71*, Counc. Brit. Archaeol. Res. Rep. 26
- Drury, P.J. and Wickenden, N.P. 1982, 'An Early Saxon Settlement within the Romano-British Small Town at Heybridge, Essex', *Mediaeval Archaeol.* 26, 1–41
- Duhig, C. 2015, 'Human remains', in Atkinson, M. and Preston, S., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5. Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.duhig>> (Accessed 12 July 2017)
- Ennis, T. 2001, *39–45 Crescent Road, Heybridge, Essex: Archaeological Evaluation*, unpubl. Essex County Council Field Archaeology Unit report 840
- Ferdière, A. and Villard, A. 1993, *La tombe augustéenne de Fléré-la-Rivière (Indre)*, Mémoire 2 du Musée d'Argentomarus, Revue Archéologique du Centre, Supplément 7 (Saint-Marcel)
- Feugère, M. 2002, *Weapons of the Romans* (Stroud)
- Fock, J. 1966, *Metrische Untersuchungen an Metapodien Einiger europäischer Rinderassen* (München, Diss LMU)
- Foster, J. 1986, *The Lexden Tumulus: a re-appraisal of an Iron Age burial from Colchester*, Essex, Brit. Archaeol. Rep., Brit. Ser., 156 (Oxford)
- Fulford, M. 2001, 'Links with the past: pervasive "ritual" behaviour in Roman Britain', *Britannia* 32, 199–218
- Friendship-Taylor, D. 2015, 'Leather shoes', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Volume 2, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.shoes>> (Accessed 12 July 2017)
- Gale, R. and Cutler, D. 2000, *Plants in Archaeology* (Oxford/London, Westbury/Royal Botanic Gardens, Kew)
- Germany, M. 2014, 'Continuity and change in the mid Chelmer Valley: excavations at Old Hall and Generals Farms, Boreham, 2007', *Essex Archaeol. Hist.*, 4th Ser., 5, 45–86
- Gilmour, N. 2013, *Bronze Age Barrows, Iron Age, Roman, medieval and later activity on the route of the proposed Chelmsford effluent pipeline, Essex*, unpubl. Oxford Archaeology East report 1504
- Going, C.J. 1987, *The Mansio and Other Sites in the South-Eastern Sector of Caesarmagus: The Roman Pottery*, Counc. Brit. Archaeol. Res. Rep. 62 (London)
- Going, C.J. 1988, 'Ritual', in Wickenden, N.P., *Excavations at Great Dunmow: a Romano-British Small Town in the Trinovantian Civitas*, E. Anglian Archaeol. 41, 22–23
- Grant, A. 1982, 'The use of tooth wear as a guide to the age of domestic ungulates', in Wilson, B., Grigson, C. and Payne, S. (eds), *Ageing and Sexing Animals from Archaeological Sites*, Brit. Archaeol. Rep., Brit. Ser., 109 (Oxford) 91–108
- Guest, P. 2015, 'The Roman Coins', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.guest>> (Accessed 12 July 2017)
- Guttmann, E.B. and Last, J. 2000, 'A Late Bronze Age landscape at Hornchurch, Greater London', *Proc. Prehist. Soc.* 66, 319–359

- Hamerow, H. 1993, *Excavations at Mucking Volume 2: The Anglo-Saxon settlement, Excavations by Tom and Margaret Jones, parts i and ii*, English Heritage Archaeol. Rep. 21
- Hanson, K. 2014, *Land Rear of 17–21 Crescent Road/ Elizabeth Way, Heybridge, Essex: An Archaeological Evaluation*, unpubl. Pre-Construct Archaeology report R11707
- Hartley, B.R. and Dickinson, B.M. 2008, *Names on Terra Sigillata: Volume 3 (Certianus to Exsobano)*, Bulletin of the Institute of Classical Studies Supplement 102–03, Institute of Classical Studies, University of London, London
- Hartley, K. 2015, 'Mortaria stamps', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.hartley>> (Accessed 12 July 2017)
- Havis, R. and Brooks, H. 2004, *Excavations at Stansted Airport, 1986–91. I: prehistoric and Romano-British*, E. Anglian Archaeol. 107
- Hawkes, C.F.C. and Hull, M.R. 1947, *Camulodunum: first report on the excavations at Colchester, 1930–1939*, Soc. Antiq. Res. Rep. 14 (Oxford)
- Hirst, S. and Clark, D. 2009, *Excavations at Mucking Volume 3: The Anglo-Saxon Cemeteries, Excavations by Tom and Margaret Jones, parts i and ii* (Museum of London Archaeology)
- Hobbs, R. 2015, 'Late Iron Age Coins', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Volume 2, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.hobbs>> (Accessed 12 July 2017)
- Hogan, S. and House, J. 2007, *48 Crescent Road, Maldon Essex: Archaeological Evaluation*, unpubl. Archaeological Solutions report 2173
- Holden, J., Phakey, P. and Clement, J. 1995a, 'Scanning electron microscope observations of incinerated human femoral bone: a case study', *Forensic Science International* 74, 17–28
- Holden, J., Phakey, P. and Clement, J. 1995b, 'Scanning electron microscope observations of heat-treated human bone', *Forensic Science International* 74, 29–45
- Hull, M.R. 1963, *The Roman Potters' Kilns of Colchester*, Rep. Res. Comm. Soc. Antiq. London 21
- Jacomet, S. 2006, Identification of cereal remains from archaeological sites, 2nd ed. (Archaeobotany laboratory, IPAS, Basel University), unpubl. manuscript
- Johnstone, C. and Albarella, U. 2015, 'The Late Iron Age and Romano-British mammal and bird bone assemblage from Elms Farm, Heybridge, Essex', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5*, Volume 2, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.albarella>> (Accessed 12 July 2017)
- Jones, G.P. 2006, *The later prehistoric pottery from Saltwood Tunnel, Saltwood, Kent*, CTRL specialist report series. Available: <[http://ads.ahds.ac.uk/catalogue/adsdata/arch-335-1/dissemination/pdf/PT2\\_Spec\\_Reps/01\\_Ceramics/CER\\_research\\_reports/CER\\_LaterPrehistoricPot/CER\\_LaterPrehistoricPot\\_Text/CER\\_LPR\\_SLT\\_text.pdf?CFID=573996&CFTOKEN=39545028](http://ads.ahds.ac.uk/catalogue/adsdata/arch-335-1/dissemination/pdf/PT2_Spec_Reps/01_Ceramics/CER_research_reports/CER_LaterPrehistoricPot/CER_LaterPrehistoricPot_Text/CER_LPR_SLT_text.pdf?CFID=573996&CFTOKEN=39545028)> (Accessed 12 July 2017)
- Jones, J., Smith, D. and Wilkinson, K. 1997, 'The Environment and the Economy', in Langton, B. and Holbrook, N., 'A Prehistoric and Roman Occupation and Burial Site at Heybridge: excavations at Langford Road, 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 38–44
- Jope, E.M. 2000, *Early Celtic art in the British Isles* (Oxford)
- Keily, J. 2006, 'The ceramic and stone finds', in Keily, J., Morris, E., Samuel, M. and Shaffrey, R., *Small finds Cobham Golf Course, Cobham*, CTRL specialist archive report, 3–7
- Kilbride-Jones, H.E. 1980, *Celtic craftsmanship in bronze* (London)
- Lane, T. and Morris, E.L. (eds) 2001, *A millennium of salt-making: prehistoric and Romano-British salt-production in the Fenland*, Lincolnshire Archaeology and Heritage Rep., Ser. 4 (Sleaford, Heritage Trust of Lincolnshire)
- Langton, B. 1997, 'Ceramic building material', in Langton, B. and Holbrook, N., 'A prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 38
- Langton, B. and Holbrook, N. 1997, 'A Prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road, 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 12–46
- Luff, R. 1982, 'The Animal Bone', in Drury, P.J. and Wickenden, N.P. 'An Early Saxon Settlement within the Romano-British Small Town at Heybridge, Essex', *Medieval Archaeol.* 26, 29
- Luff, R. 1986, 'Environmental Evidence', in Wickenden, N.P., 'Prehistoric Settlement and the Romano-British 'Small Town' at Heybridge, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 17, 53
- Luff, R.M. 1993, *Animal Bones from excavations in Colchester, 1971–85*, Colch. Archaeol. Rep. 12 (Colchester Archaeological Trust)
- MacGregor, M. 1976, *Early Celtic art in North Britain* (Leicester)
- Major, H. 2015a, 'Building stone', in *Heybridge: A Late Iron Age and Roman Settlement, excavations at Elms Farm 1993–95. Volume 1*, Internet Archaeol. 40. Available: <<http://intarch.ac.uk/journal/issue40/1/3-7-6.html#stone>> (Accessed 12 July 2017)
- Major, H. 2015b, 'Querns', in *Heybridge: A Late Iron Age and Roman Settlement, excavations at Elms Farm 1993–95. Volume 2*, Internet Archaeol. 40. Available: <<http://intarch.ac.uk/journal/issue40/1/3-7-4.html#querns>> (Accessed 12 July 2017)
- Major, H. 2015c, 'Whetstones and sharpening stones', in *Heybridge: A Late Iron Age and Roman Settlement, excavations at Elms Farm 1993–95. Volume 2*, Internet Archaeol. 40. Available: <<http://intarch.ac.uk/journal/issue40/1/3-7-10.html#whetstones>> (Accessed 12 July 2017)
- Major, H. and Tyrrell, R. 2015, 'The Roman tile', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–95, Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.major7>> (Accessed 12 July 2017)
- Manning, W.H. 1985, *Catalogue of the Romano British Tools Fittings and Weapons in the British Museum* (London, British Museum Publications)
- Matolsci, J. 1970, 'Historische Erforschung der Körpergröße des Rindes auf Grund von ungarischem Knochenmaterial', *Zeitschrift für Tierzüchtung und Züchtungsbiologie* 87, 89–137
- McKinley, J. 1993, 'Bone fragment size and weights of bone from modern British cremations and implications for the interpretations of archaeological cremations', *International Journal of Osteoarchaeology* 3, 283–287
- McKinley, J. 1997, 'Cremated bone', in Langton, B. and Holbrook, N., 'A Prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road, 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 29–30
- McKinley, J. 2004, 'Compiling a skeletal inventory: cremated human bone', in Brickley, M. and McKinley, J. (eds), *Guidelines to the Standards for Recording Human Remains*, Brit. Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 9–13
- McKinley, J. 2008, 'In the heat of the pyre: efficiency of oxidation in Romano-British cremations – did it really matter?', in Schmidt, C. and Symes, S. (eds), *The Analysis of Burned Human Remains* (London, Academic Press)
- Meates, G.W. 1987, *The Lullingstone Roman Villa, Volume II: The Wall Paintings and Finds*, Kent Archaeol. Soc. Monogr. Ser., 3
- Medlycott, M. (ed.) 2011, *Research and archaeology revisited: a revised framework for the east of England*, E. Anglian Archaeol. Occ. Pap. 24
- Megaw, J.V.S. and Merrifield, R. 1969, 'The Dowgate plaque: a bronze mount of the Belgic Iron Age from the City of London', *Archaeol. J.*, 126, 154–9
- Moore, C. 2002, 'Late Bronze Age, Romano-British and early/mid Saxon features at Hoo St Werburgh', *Archaeologia Cantiana* 122, 259–92
- Morris E.L. 2006, 'Later prehistoric pottery', in Booth, P. (ed), *Ceramics from Section 1 of the Channel Tunnel Rail Link, Kent* (CTRL Specialist Report Series), 34–119. Available: <[http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-335-1/dissemination/pdf/PT2\\_Spec\\_Reps/01\\_Ceramics/CER\\_SSR\\_Text/CER\\_SSR\\_text.pdf](http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-335-1/dissemination/pdf/PT2_Spec_Reps/01_Ceramics/CER_SSR_Text/CER_SSR_text.pdf)> (Accessed 12 July 2017)
- Newton, A.S. 2008, 'A Late Bronze Age to Early Iron Age enclosure and an early Anglo-Saxon cremation cemetery at the Chalet Site, Hall Road, Heybridge, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 39, 57–123
- NIAB 2004, *Seed Identification Handbook: Agriculture, Horticulture and Weeds*, 2nd ed. (Cambridge, NIAB)
- Oldenstein, J. 1976, 'Zur Ausrüstung römischer Auxiliareinheiten', *Bericht der Römisch-Germanischen Kommission* 57, 49–285
- PCRG. 2010, *The study of later prehistoric pottery: general policies and guidelines for analysis and publication*, Prehistoric Ceramic Research Group Occas. Pap. 1 and 2, 3rd ed. Available: <<http://www.pcrgrg.org.uk/>

- News\_pages/PCRG%20Gudielines%203rd%20Edition%20%282010%29.pdf> (Accessed 12 July 2017)
- Poole, C. 2011, 'The Fired Clay', in Simmonds, A., Wenban-Smith, F., Bates, M., Powell, K., Sykes, D., Devaney, R., Stansbie, D. and Score, D., *Excavations in North West Kent 2005–2007: One hundred thousand years of human activity in the Darrent Valley*
- Roy, M. 2002, *41 Crescent Road, Heybridge, Essex: Archaeological Watching Brief*, unpubl. Essex County Council Field Archaeology Unit report 972
- Roy, M. and Heppell, E.M. 2014, 'A Prehistoric landscape at Langford Hall, near Heybridge: excavations 1995–6', *Essex Archaeol. Hist.*, 4th Ser., 5, 19–36
- Scheuer, L. and Black S. 2000, *Developmental Juvenile Osteology* (London, Elsevier Academic Press)
- Schweingruber, F.H. 1990, *Microscopic Wood Anatomy*, 3rd ed. (Birmensdorf, Swiss Federal Institute for Forest, Snow and Landscape Research)
- Serjeantson, D. 1996, 'The Animal Bones', in Needham, S. and Spence, T., *Runnymede Bridge Research Excavations, Volume 2: Refuse and Disposal at Area 16 East, Runnymede* (London, British Museum), 194–223
- Stace, C. 1997, *New Flora of the British Isles* (Cambridge Univ. Press)
- Stead, I.M. 1967, 'A La Tène III burial at Welwyn Garden City', *Archaeologia* 101, 1–62
- Stead, I.M. 1976, *Excavations at Winterton Roman villa*, Dept. of the Environment Archaeol. Rep. 9 (London)
- Timby, J. 1993, *Holloway Road, Heybridge, Maldon, Essex. Field Evaluation report*, unpubl. Cotswold Archaeol. Trust report 93113
- Tomlin, R.S.O., 2016, 'Inscriptions', *Britannia* 47, 389–415
- Turner, R. 1999, 'Window glass', in Turner, R., *Excavations of an Iron Age Settlement and Roman Religious Complex at Ivy Chimneys, Witham, Essex 1978–83*, E. Anglian Archaeol. 88, 123
- Tyler, S. 1997, 'Saxon pottery', in Langton, B. and Holbrook, N., 'A Prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road, 1994', *Essex Archaeol. Hist.*, 3rd Ser., 28, 35–7
- Tyler, S. 2015, 'The Saxon pottery', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5, Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.tyler2>> (Accessed 12 July 2017)
- Tyler, S. and Major, H. 2005, *The Early Anglo-Saxon Cemetery and Later Saxon Settlement at Springfield Lyons, Essex*, E. Anglian Archaeol. 111
- Tyrrell, R. 2015, 'Bone hairpins', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5, Volume 2*, Internet Archaeology 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.tyrrell2>> (Accessed 6th July 2017)
- von den Driesch, A. 1976, *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletins (Harvard Univ. Press)
- Wallis, S. and Waughman, M. 1998, *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82
- West, S. 1985, *West Stow: The Anglo-Saxon Village. Volume 2*, E. Anglian Archaeol. 24
- Wickenden, N.P. 1986, 'Prehistoric Settlement and the Romano-British 'Small Town' at Heybridge, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 17, 7–68
- Wymer, J.J. and Brown, N.R. 1995, *Excavations at North Shoebury: settlement and economy in south-east Essex 1500BC–AD1500*, E. Anglian Archaeol. 75



# A Roman agricultural landscape in South-East Essex: Excavations at Brays Lane, Rochford

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Karine Le Hégarat and Elissa Menzel

*Archaeological investigation on land south of Brays Lane, Rochford, carried out in 2012, recorded two broad periods of Roman landscape development as represented by an earlier enclosure system and its later replacement, spanning the mid 1st to late 4th centuries AD. The enclosed areas were predominantly agricultural in their nature, perhaps initially arable but becoming pastoral, as suggested by alterations through time, particularly the development of a funnel-shaped entrance for directing animals into one of the enclosures and the introduction of a waterhole. No buildings or other structures that demonstrate contemporary occupation of the site were found. However, the presence of a small cremation cemetery, refuse pits and cultural material deposited in the ditches is indicative of settlement activity nearby, presumably a farmstead associated with the field systems. The significance of the site lies in its local rarity as no other Roman sites have been recorded in the vicinity prior to this investigation.*

## INTRODUCTION

### Project background

Archaeological investigations were carried out on 5.5ha of agricultural land formerly belonging to Great Brays Farm, Rochford, in advance of its residential development. The site is located in Rochford District, c.5km north of Southend-on-Sea, in south-east Essex. The site itself lies on the south side of Brays Lane (NGR TQ 87156 92278), which runs eastwards from Ashingdon village, roughly along the boundary between Rochford and Ashingdon parishes, and is bordered by farm buildings along its eastern edge, the King Edmund School grounds to the south and residential development to the west (Fig. 1).

Following archaeological evaluation by the former Essex County Council Field Archaeology Unit within the western field in April and May 2012, which demonstrated the presence and survival of significant below-ground remains, open area excavation was carried out between August and November 2012.

### Geology, topography and environment

The superficial geology of the study area as mapped by the British Geological Survey (BGS 2015) comprises undifferentiated River Terrace deposits. Underlying the superficial deposits is London Clay, which outcrops in the north-west corner of the site. The overlying topsoil and subsoil is on average 0.5m thick. The surface geology, as shown by aerial photographic coverage of the general vicinity, includes regularly-spaced natural (potentially periglacial) channels with a prevailing north-east to south-west alignment that produce a rectilinear pattern.

The land surface at the site slopes southwards, dropping from c.14.5m AOD in the north to 12.5m AOD at the south edge. Prior to the development the site comprised agricultural land which was under pasture at the time the works began.

### Historical and archaeological background

There are no designated monuments or records of known archaeological remains within the study area and very few in the immediate vicinity. The absence of archaeological remains is likely, at least partially, to reflect the limited archaeological investigations which have taken place in the locality to date.

The Essex Historic Environment Record (EHER) references within 1km of the site largely comprise elements of the historic town centre of Rochford, which lies to the south, Ashingdon to the north, and World War II defences in the form of pillboxes.

The area is noted for its landscape of dispersed and polyfocal settlements, church/hall complexes and historic farms. The medieval complex of Ashingdon Hall and St Andrews Church (EHER 34914 and 13610) lies less than 1km to the north of the site while a number of halls, moated sites and farms, including Apton Hall, Little Stambridge Hall, the moated site of Rectory Hall and Doggetts Farm, lie immediately to the east.

The remains of past agricultural activity are recorded to the north of Ashingdon church where traces of medieval ridge and furrow and a ditch system have been identified (EHER 13482). Post-medieval archaeological sites, located to the south of the site, include the Golden Cross Brickfields (EHER 15471) and the Rochford Union Workhouse (EHER 15383).

In the 19th century the site lay within a single field which extended further east, in the area of the present farm buildings. The farm (shown on Fig. 1) and all residential properties in this vicinity are post-World War II developments, as is the division of the land into east and west fields.

## ARCHAEOLOGICAL EXCAVATION

Fieldwork on the site at Brays Lane consisted of an initial trial-trench evaluation followed by full excavation. The twenty-four evaluation trenches were designed to evenly cover both fields, providing a 5% sample of the development area (Fig. 1). All trenches measured 40m long by 1.8m wide, with the exception of trenches 12 and 14, which were 20m long, and 17 and 19 which had to be halved in length due to on-site constraints.

Following on from, and guided by, the evaluation two excavation areas were identified. The area located in the northern half of the western field was roughly square in shape and covered 0.92ha, while that in the eastern field was located in its centre, rectangular in shape and covered an area of 0.16ha.

Up to 0.5m of topsoil was stripped from the excavation areas exposing natural deposits into which the archaeological features were cut. The majority of the linear features were

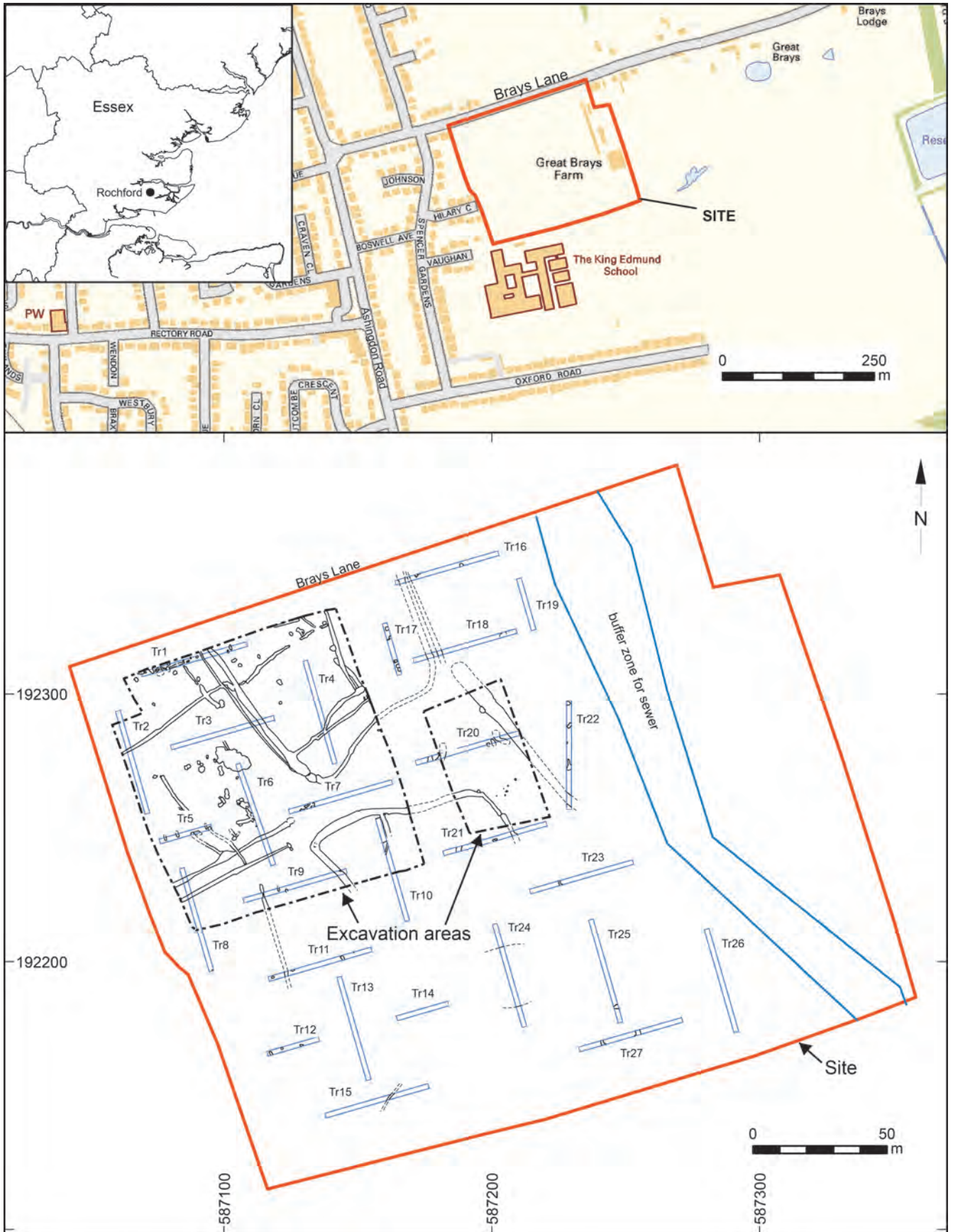


FIGURE 1: Site location  
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initially readily visible on the surface of the open excavation areas, but most of the discrete features such as pits were shallow and ill-defined, their fills often being similar to the natural deposit. The wet weather also hindered the visibility of features during the excavation. Thus the density of discrete features may have been lower than expected from the evaluation due to poor definition, although much greater confidence can be placed in the identification of the linear features.

Three main phases of activity were identified. The prehistoric period was represented by a Middle Bronze Age token burial pit and a background scatter of artefacts from later features. In the Early Roman period a rectilinear enclosure system was established defining seven land entities used for agriculture, probably arable at this stage. This was adapted in the later Roman period with more of an emphasis on livestock management.

In the following text the features have been assigned numbered groups for ease of reference (prefixed G). Where individual contexts are mentioned the context numbers have square brackets (*e.g.* [123]). All features are within or define numbered land entities or Open Areas, prefixed OA, illustrated

on Fig. 2 and Fig. 4. The phasing into periods of land use was achieved primarily using pottery dates and both stratigraphic and spatial relationships.

**Period 1: Prehistoric**

A single demonstrably prehistoric feature was identified. An oval pit (G23) with gradually sloping sides and a flat base was situated in the northern part of the western field excavation area (Fig. 2). Several sherds of Middle Bronze Age (c.1500–1150 BC) pottery, believed to derive from a single vessel, were recovered from its fill. The pottery is unusual and was possibly deliberately broken prior to its deposition together with abundant charcoal. The analysis of this material (see Doherty, and Allott and Le Hégarat, below) suggests that the pit and its contents were a structured deposit representing a ‘cenotaph’ or token burial which did not contain human remains.

The only other indication of prehistoric activity from the site is the presence of residual material found in later features and deposits. A single struck flint, a thin blade fragment dating to the Late Mesolithic or Early Neolithic, was collected from the fill of a Period 3 Roman ditch (Fig. 4, G39, OA13).

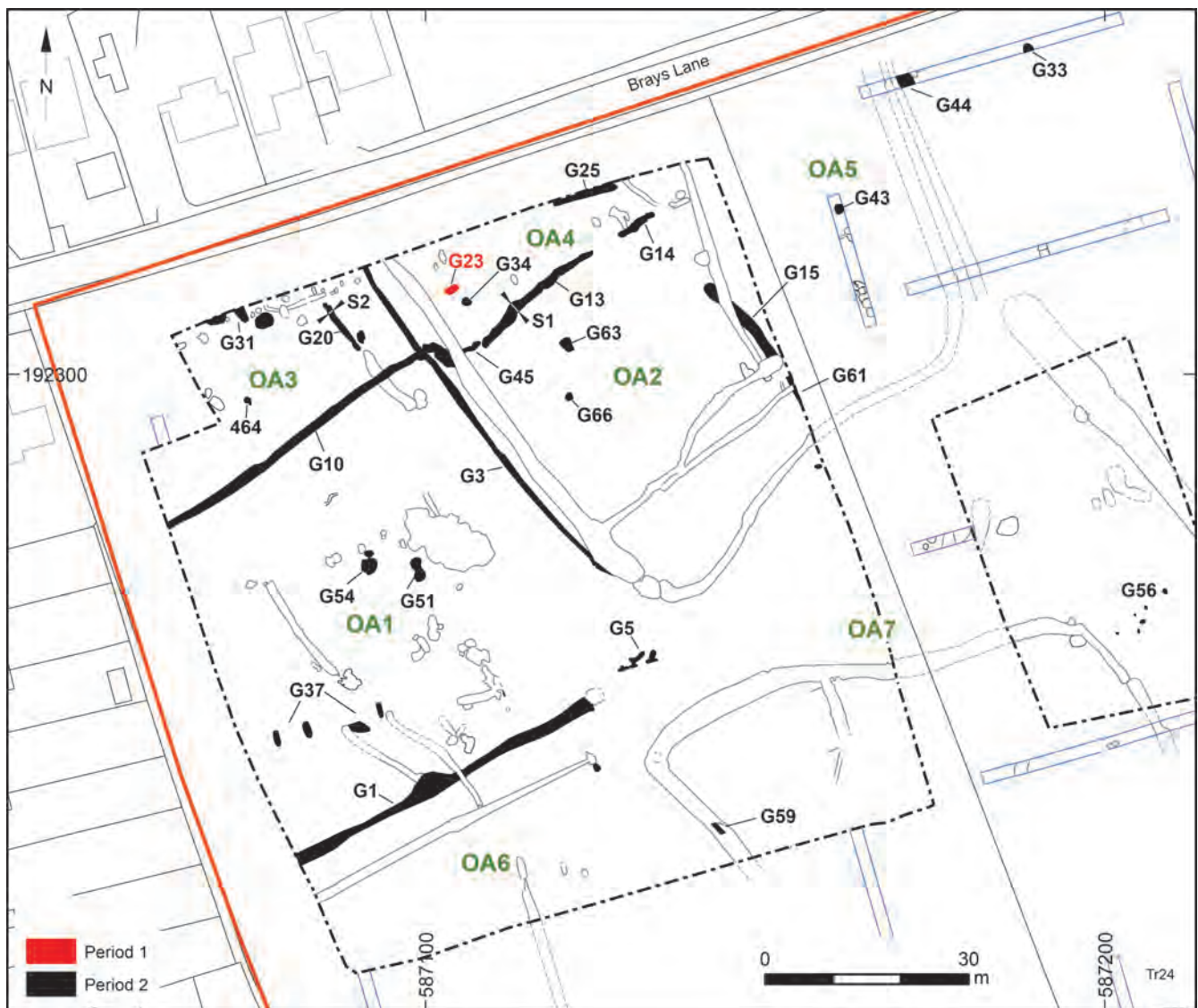


FIGURE 2: Site plan: Period 1 and 2



### Period 2: Early Roman land use (1st to mid 2nd centuries)

The remains of a number of relatively narrow ditches defined parts of a rectilinear enclosure system set out on a NNW-SSE/ENE-WSW alignment (Fig. 2). Ditches G1, G3 and G10, together with a postulated NNW to SSE aligned boundary hinted by the severely truncated ditch G59 to the south, formed the main axes within this system. Shorter ditches G13, G14, G15, G20 and G42 marked subdivisions within the enclosures. In total, parts of possibly seven distinct land entities (OA1 to OA7) can be discerned or inferred. The function of the land units comprising the enclosure system is not readily apparent. Contemporary features which occupied their interiors were generally sparse and uninformative.

Of the open areas well defined within the excavated area, OA1 was the greatest in extent, at 50–60m across. Its bounding ditches were narrow and relatively shallow at under 0.5m deep, and its western extent lay beyond the limit of excavation. A squared terminal is evident at the east end of ditch G1 implying an access point at the south-east corner of the enclosure. Approximately 6m to the east of this were five pits and the ephemeral remains of a linear feature (G5) noted only in the evaluation stage, which possibly represent the east side of the entrance. However, the ditch (G3) forming the east side of OA1 was not observed to extend this far south. A number of features were present within the enclosure, including two adjacent pits in the centre (G54) which contained mid 1st- to early 2nd-century pottery and in the case of the larger pit, a fragment of decorated bracelet (RF<1>, Fig. 6). To the east two further pits, G51, were undated but are considered contemporary. In the south-west of OA1 four pits (G37), three of which were broadly similar elongated parallel cuts, were excavated. Only one of these contained definitively Early Roman pottery and their function is unclear.

To the east OA2 was less well defined, with the southern boundary entirely absent, almost certainly due to removal by the later Period 3 ditch (G16 on Fig. 4). Its defining ditches (G13, G14, G15 and G61) were intermittent and variable in depth, though generally shallow and narrow (for example G13, Fig. 5 section 1), possibly inferring that these were internal subdivisions to a larger enclosure. It is conjectured that a point of access into OA4 was originally located at the north-west corner of OA2 and subsequently blocked by the insertion of a short length of irregular ditch G45. A pit within OA2 (G63) contained Early Roman pottery while a second smaller pit with multiple fills (G66) was undated.

To the north of OA1 and OA2 were two further enclosures (OA3 and OA4), separated by the northward continuation of the G3 ditch, but the majority of these extended beyond the excavated area. Despite this, a number of features were present in OA3, including a short gully (G20, Fig 5. section 2) which may define an animal pen in the south-east corner. Several pits within OA3 (G31) contained Roman pottery and one, [464], yielded fragments of a Roman baked clay cylindrical loom weight or pedestal. Open Area 4 contained a short length of ditch on the north edge of the excavation area (G25) containing Roman tile, the purpose of which was unclear, and two pits (G34) which did not yield dateable finds.

Three further open areas, OA5, OA6 and OA7, were somewhat notional, potentially bounded by ditches which were recut in the later Roman period. Open Area 6 in the south-

west in particular may have possessed an eastern edge defined by a fragment of surviving ditch (G59) identified beneath a larger later enclosure ditch. Features within these open areas, including pits G33, G43 and G44, contained a small amount of contemporary pottery. Open Area 7 was an even less structured space, perhaps including an access route from the east to (or through) OA1 and OA6. However, it also included a cluster of six cremation burials (G56, plan Fig. 3), perhaps an indication of the more peripheral nature of this part of the agricultural landscape. All of the small grave pits were circular or oval in shape and only 0.25m wide and 0.1m deep. The interred deposits were severely truncated by later activity and it was not possible to determine the nature of cremation placement within the graves. Burials [663], [664], [665] and [667] all contained the lower parts of jars or jar/bowls while [666] and [673] yielded no ceramic vessel remains. Both [663] and [665] included fragmentary remains of a second vessel, probably a plate or dish either used as a lid or a grave good. Other than a variable quantity of cremated bone (100–1,190g) none contained further grave goods or identifiable pyre debris. The vessels all fit within a mid 1st–mid 2nd-century AD date range, with the jar from grave [663] being more closely dated to the mid 2nd century. The cluster of cremation burials, probably a small family cemetery, does not appear to have been enclosed.

### Period 3: Later Roman land use (late 2nd to 4th centuries AD)

A degree of both continuity and change are evident in the layout of the later Roman landscape. General alignments were retained and some of the earlier enclosure boundaries were either moved slightly or recut and incorporated into the revised enclosure system imposed. Nine landscape entities (OA8–OA16) are identified for this period (Fig. 4). The ditches

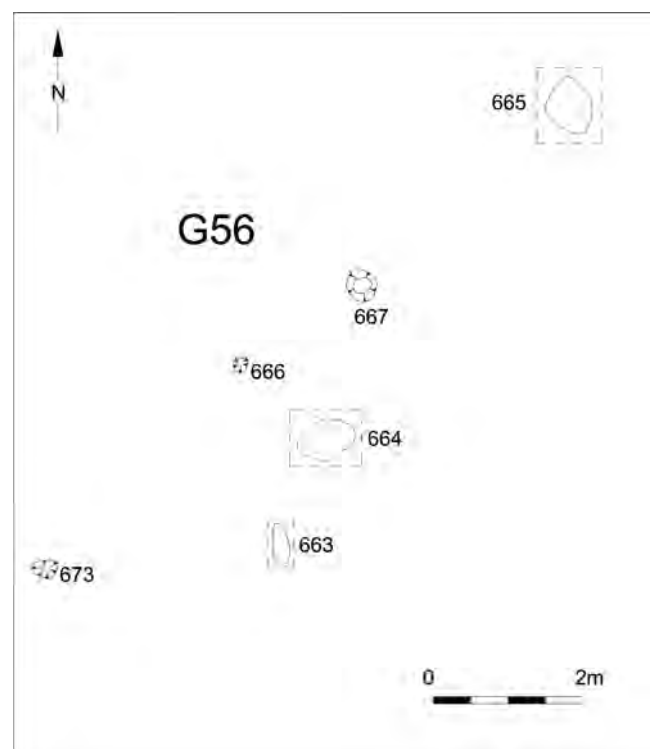


FIGURE 3: Plan of cremation group G56. Those with a surrounding dotted line were box lifted.



FIGURE 4: Site plan: Period 3

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that defined the enclosure complex retained the prevailing NNW-SSE/ENE-WSW alignment but were more substantial than those of the earlier Roman landscape.

For the new field system in Period 3, enclosures OA1 and OA3 were combined and replaced by OA8 and OA9. This was achieved by the backfilling of the Period 2 east to west subdividing ditch (G10, Fig. 2) and the introduction of a north to south division (G7 and G27, Fig. 5 section 3). Similarly, OA2 and OA4 were replaced by OA10 and OA11, again with the removal of the east to west subdivision G13 and G14 and the addition of a new ditch to the south (G12). It is postulated that the OA13 and OA14 enclosures also have their origins in earlier

versions, but the evidence for the earlier boundaries is scant. The symmetry between OA14 and the hypothetical extents of OA10/11/12 is evident, producing a narrowing funnel-shaped space leading toward the south-east corner entrance of OA9. The major alteration to the enclosure system is the addition of a substantial ditch G22 between OA15 and OA16, for which there is no precursor.

The western part of the site thus comprised a single large enclosure bounded by ditch G28 (Fig. 5 section 5) to the south, ditch G4 to the east and extending off to the north and west beyond the limits of excavation. A subdivision marked by interrupted boundary G7/G27, and parallel ditch G6, divides

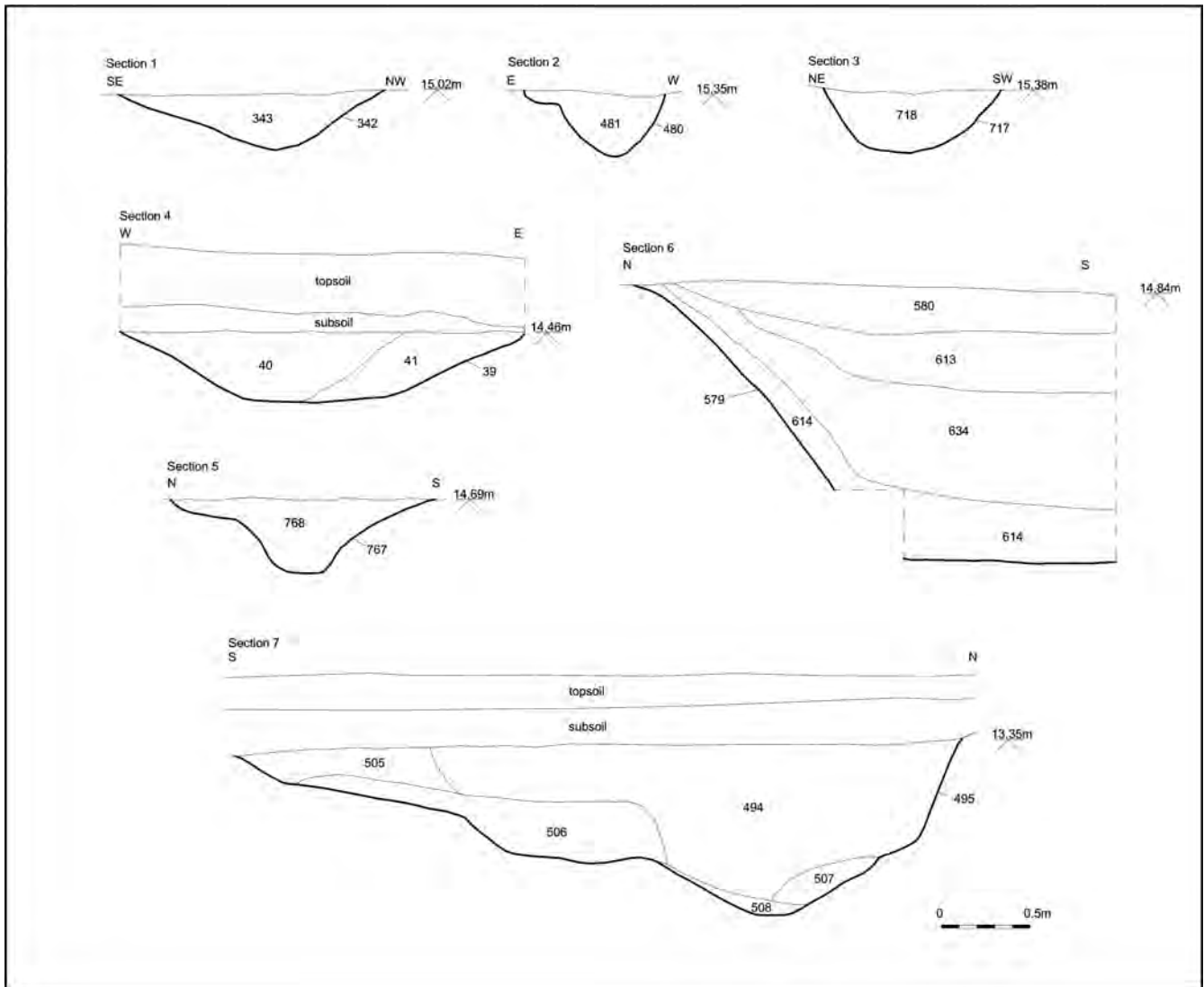


FIGURE 5: Selected sections, located on figs 2 and 3

its interior into two distinct spaces, OA8 to the west and OA9 to the east. This north to south aligned subdivision may have functioned as a pathway between the two parts. The south-east corner of OA9 is open, facilitating access southwards into OA13 and eastwards into OA15. Features associated with OA9 include short lengths of ditch G21, G11 and G26, the functions of which are not clear but may be associated with stock management. A pit (G57) at the south-east corner of the enclosure, which contained mid 2nd- to 3rd/4th-century pottery, may be deliberately located at the end of the infilled Early Roman enclosure boundary ditch G1. However, the interior of OA9 is dominated by a pond or large waterhole (G52), 14.2m long by 7.5m wide, roughly oval in shape, and up to 1.5m deep (Fig. 5 section 6). It contained a sequence of four main fills, the upper two containing the majority of the finds recovered from it, including over 3.5kg of later Roman pottery, pieces of brick and tile and a fragment of quern stone. A number of other pits (G53, Fig. 4), many undated, may have been associated with it.

To the east a further enclosure was also subdivided, possibly into three entities OA10, OA11 and OA12. Ditches G4 (Fig 5. section 4) and G16 define parts of the western and southern boundary of a rectilinear enclosure that extends

beyond the area of excavation to the north and east. Both of these yielded predominantly 3rd- and 4th-century pottery. A ditch only recorded in the evaluation trenches (G65) represents the eastern side, creating an enclosure approximately 70m wide. There was a gap in the south-west corner, potentially an entrance, but it was blocked in the 4th century by a large pit (G30).

The southern part of the enclosure interior was divided off by ditch G12 forming a narrow sub-enclosure OA11. At some stage a stratigraphically later curving ditch G9 altered the alignment of this division demonstrating that the internal subdivisions did not necessarily endure for the entire usage of the enclosure. A further north to south subdivision to the east, G18, met with the east end of G9 and separated OA12 from OA10. It is not entirely clear how these divisions operated, and the few features within the Open Areas, mostly Late Roman pits (G17, G35, G36 and G42), did not provide clues to their function.

Open Area 13 in the south-west of the excavation area, bounded to the north by ditch G28 and to the east by ditch G8, is of unknown extent. A point of access was located in the north-east of this enclosure, facilitating entry to OA9 and funnel-shaped space OA15. A possible subdividing ditch (G39)

was undated, but it formed a continuation of the line of the G7 ditch which separated OA8 and OA9. A single later Roman pit (G64) was also located in OA13.

Ditches G8 and G24, and recut G60, defined the north end of a clearer rectilinear enclosure OA14, extending to the south beyond the limit of excavation. A total width of 65m east to west can be determined for this enclosure, which matches well with its mirror-image enclosure OA10/11/12 to the north. Ditch G24 was the interrupted continuation of the enclosure's eastern boundary and was recorded for a distance of 9m. A quantity of 3rd- to 4th-century pottery was retrieved from the fills. The more substantial recut G60 contained pottery of variable date range, from mid 1st-early 3rd century through to late 3rd-4th century, which is a reflection of the fact that the ditch was the re-cutting of an earlier boundary feature from Period 2 (G59 on Fig. 2).

A roughly north to south aligned ditch G29 extended southwards from the OA14 enclosure ditch and was apparently integral to it. As such, it presumably marked an internal subdivision of the enclosure interior. The 4th-century pottery retrieved from its single fill shows that the subdivision was associated with the recut phase of this land unit. Few other features were identified here, partly due to persistent flooding during the excavation, but those recorded included two pits (G48) containing 4th-century pottery, and a large pit adjacent to a small gully (G41). Some distance to the south, potentially still within OA14 but perhaps more likely outside it, was a large quarry feature (G49) containing late 4th-century pottery, brick and tile, only recorded in an evaluation trench.

OA15 was an irregular-shaped land entity between enclosures OA10/11/12 and OA14, extending westwards to the open corner of OA9 and eastwards to the substantial G22 boundary. Its irregular shape in plan is largely the product of the mirroring splay of the opposing boundaries of OA11 and OA14 and its apparent extension down the east side of the latter. The G22 ditch was recorded for a distance of almost 60m, widening towards its north (Fig. 5 section 7). It contained a relatively complex fill sequence, but only the uppermost deposit in each segment contained finds, including 3rd- to 4th-century pottery and small quantities of tile, bone and baked clay. The narrowing shape of OA15 suggests that it was intended to funnel animals into the enclosures to the west.

Finally, OA16 is that part of the landscape east of the G22 and G65 boundaries and is therefore mostly inferred rather than evidential. A ditch parallel to the OA12 boundary, G67, formed the western edge of OA16 in the north and marked OA16 as part of a separate system from OA12.

## FINDS AND ENVIRONMENTAL EVIDENCE

### Introduction

The finds assemblage recovered from both the evaluation and area excavation phases of fieldwork is predominantly of Roman date, and the majority is pottery. The remainder of the assemblage comprises a fairly limited range and quantity of artefact types, mostly being deposited in the enclosure boundary ditches and pits. Exceptions are pottery from the Middle Bronze Age pit and the pottery and burnt bone from the small cluster of cremation burials.

Finds from the site which are not reported below include a thin flint blade fragment of Mesolithic or Early Neolithic date, residual in a later feature. Also, the presence of ironworking

slag in a number of features indicates low levels of smithing on the site throughout the Roman period, but there was no obvious concentration to indicate where such metalworking was undertaken, nor was hammerscale found in any context. Full reports on all aspects of artefacts from the site can be found in the archive deposited with Southend Museum.

### Middle Bronze Age Pottery by Anna Doherty

A number of non-cross-fitting sherds, representing approximately one quarter of a Middle Bronze Age pottery cup (Fig. 6.1) were recovered from [499], the primary fill of G23 pit [498]. The vessel is associated with a moderately coarse flint-tempered fabric (with inclusions up to 3mm in size). In terms of profile, it is similar to coarse globular-shaped vessels or squatter barrel urns, though it is made on a dramatically smaller scale: it has a rim diameter of just 80mm (and probably a similar height). It is also decorated with at least two applied bosses positioned directly below the rim.

Cups make up a very minor element of the typical Middle Bronze Age Deverel-Rimbury (DR) repertoire. It is clear that these must represent different functional types to the large barrel and bucket urns which typify this tradition. Similarly, bosses are much less commonly encountered in DR assemblages than applied cordons or finger-tip impressed decoration and they appear to be particularly associated with small vessels. In the Upper Thames Valley, 'knobbed cups' have been recognised as an unusual type, found almost exclusively in funerary contexts (Needham 1987, 111). More locally, it is of note that the two examples of small vessels with bosses from North Shoebury appear to come from special deposits: one of them placed whole in a pit and sherds from the other laid flat, filling a shallow depression (Brown 1995, 80; figs 62.15 and 63.29).

The vessel was found in a fragmented state; interestingly none of the 17 sherds cross-fit and they represent different elements of the profile (base, rim, mid-body etc.). This suggests that it had been thoroughly broken prior to deposition. However, the unusual nature of the vessel itself, the absence of any sherds from other vessels and the isolation of this feature—seemingly positioned away from contemporary settlement—may indicate that this represents a structured deposit. In Kent, for example, it has been suggested that placed vessels associated with rich charcoal deposits, but little or no human bone, may represent 'cenotaphs' or token burials, often found at the periphery of cremation cemeteries (McKinley 2006, 34–35; Egging Dinwiddy and McKinley 2009).

#### *Prehistoric pottery illustration catalogue (Fig. 6)*

1. Fragmented cup with applied boss decoration from primary fill [499], of pit [498] (G23).

### Roman Pottery by Anna Doherty

The relatively large assemblage of Roman pottery recovered from the site can be divided into stratigraphic periods dating to the late 1st-mid 2nd century (Period 2) and the mid 2nd to mid/late 4th centuries (Period 3) respectively (Table 1). The earlier pottery includes six fragmented *in situ* vessels associated with four cremation burials as well as one very large pit group. The later assemblage is more substantial and derives from a broader range of features; however, about a third of the pottery recovered from this period comes from just two individual features.

Period	Sherds	Weight (g)	EVE
Period 2 (late 1st-mid 2nd C )	987	10201	3.88
Period 3 (mid 2nd-mid/late 4th C)	1941	24576	16.28
Unstratified/Unphased	273	2623	1.5
<b>Total</b>	<b>3201</b>	<b>37400</b>	<b>21.66</b>

TABLE 1: Quantification of Roman pottery by period

The pottery was quantified by sherd count, weight and EVE (estimated vessel equivalent). The fabrics were initially recorded using a combination of codes from the Chelmsford fabric type series (Going 1987), supplemented by the Suffolk fabric type series (unpublished) and the National Roman Fabric Reference Collection (Tomber and Dore 1998). However, these were later concorded to the Essex regional type-series (Biddulph *et al.* 2015). Details of this concordance are available in the archive. Forms were recorded according to type-series published by Going (1987) and Hawkes and Hull (1947).

#### Period 2 Funerary Pottery

Parts of six truncated pottery vessels were recovered from four of the G56 cremation burials ([663], [664], [665] and [667]) in OA7. In each of these burials the cremated remains were interred within a jar and those from [663] and [665] also contained single platters/bowls as accessory vessels. None of the vessels had any elements of the rim surviving and only one of the burials, [663], chronologically diagnostic fabrics/forms. In this group, the cremation urn features stabbed decoration, perhaps suggesting that it is a fine jar in a similar tradition to Going's H1/G14.2 forms, which date to the 1st century; however, the accessory vessel in this case is a flat based dish/bowl form, probably in the Black-Burnished tradition. This suggests that the group was interred after AD 120 in a cremation urn that may have been a few decades old at the time of deposition. The remainder of the vessels are not individually very closely datable. However, the dominance of black surfaced wares and the occurrence of a platter/bowl with a footring base in burial [665] tend to suggest that all of the burials are broadly later 1st to earlier 2nd century in date. Cremation was replaced by inhumation as the most popular form of burial during the 2nd century (Philpott 1991, 53) and, given that all of the burials are closely spaced, it is probably reasonable to assume that all were interred within a generation or two.

#### Catalogue of cremation burial pottery (not illustrated)

- Cremation [663], fill [669]  
 [669].1 Jar, Fabric BSW (54 sherds, 199 g). Upper body/shoulder decorated with angled lines of stab-comb dots.  
 [669].2 Dish/bowl, Fabric BSW (11 sherds, 61 g). Chamfered base edge suggests Black-Burnished style form.  
 Cremation [664], fill [670]  
 Jar, Fabric BSW (51 sherds, 520 g). Lower body only  
 Cremation [665], fill [671]  
 [671].1 Jar/bowl, Fabric BSW (70 sherds, 325 g). Base and body sherds  
 [671].2. Plate/bowl, Fabric GRF (5 sherds, 53 g). Part of footring and wall  
 Cremation [667], fill [668]  
 Jar, Fabric BSW (126 sherds, 630 g). Lower body only

#### Settlement Assemblage

##### Period 2 (Late 1st—mid 2nd century)

The site produced some pottery types which date exclusively to the 1st century AD. The earliest material includes a few sherds of South Gaulish samian (SGSW) and two tentatively-identified abraded bodysherds of Terra Nigra. Only three grog-tempered sherds (GROG) were recorded and, although shelly wares are a little more common, it was difficult to distinguish between early (ESH) and late (LSH) fabrics. Overall only seventeen shelly ware sherds were stratified in features dating to the earlier Roman period.

Taken as a whole though, the Period 2 pottery appears in keeping with depositional events from the late 1st/early 2nd century onwards. A very limited range of fabrics is represented, dominated by black surface wares (BSW) which account for over half the sherds and local coarse sandy grey wares (GRS) which make up about a quarter. Unfortunately it was not always possible to distinguish between 'Romanising' and Black-Burnished style fabrics within the BSW ware group. Both the black surface and grey wares were associated with some examples of Belgic-influenced cordoned jars like G19/G20, the production of which was dying out in the early 2nd century, but also with Black-Burnished style bowls like B4 which post-date *c.* AD 120. Storage jar fabrics (STOR) are the only other common fabric type in this period, making up about 7% of sherds. Other minor elements are made up by North Kent fine grey wares (NKG), unsourced fine grey wares (GRF), early shell-tempered wares (ESH), Baetican amphora (ABAET), unsourced oxidised wares (RED; BUF), south Gaulish samian (SGSW), central Gaulish samian (CGSW) and Verulamium region white wares (VRW). Sherds in an unsourced mica-dusted ware (MIC) found in a Period 3 feature probably also originate in the late 1st/early 2nd century.

##### Pit [599] (G54, OA1)

Pottery from pit [599], accounts for over half of the settlement assemblage from Period 2 and has therefore been quantified in full by fabric and form in Table 2 as the only example of a substantial *c.* late 1st-/early 2nd-century group from the site. It is fairly reflective of the wider Period 2 assemblage although it has a slightly larger proportion of coarse grey wares (GRS) than black surface wares (BSW). North Kent fine grey wares also possibly appear slightly disproportionately represented because a few individual vessels are represented by larger rim sherds and/or by a number of fragmented bodysherds. The group includes some exclusively 1st-century elements such as a sherd of south Gaulish samian, a *Cam.* 256 jar and a H3 beaker; however, some elements, such as a G22 jar (Fig. 6.2), seem to indicate dating towards the later 1st century, whilst the presence of poppy-head beakers with long flaring rims (*e.g.* Fig. 6.3) probably suggest that fill [601] was deposited after the turn of the 2nd century.

##### Period 3 (mid 2nd-mid/late 4th century)

In the later Roman period, the continued dominance of long-lived fabric types such as black surface ware, coarse grey ware and storage jar fabrics often prevents very close dating of smaller, less diagnostic groups. Although the Period 3 assemblage was recovered from a wide range of features, only two large groups of pottery were recovered, from ditch [117] (G9, OA10) and pond [579] (G52, OA9). These assemblages

Fabric	Form	Sherds	Weight (g)	EVE
GRS	Beaker	2	9	0.17
	Jar	4	57	0.41
		143	1373	
BSW	Bowl	2	14	
	Jar	1	38	0.27
	Jar ( <i>Cam.</i> 256)	1	5	0.05
	Jar (G19)	11	76	0.07
		122	909	
NKG	Beaker (H6)	5	31	0.48
	Beaker (H6.3)	1	5	0.11
	Bowl	4	5	
		25	92	
STOR	Jar (G22)	4	164	0.2
		23	660	
GRF	Beaker (H3)	5	40	
		7	25	
ESH		5	48	
RED	Jar	3	18	0.21
		2	3	
BUF	Beaker	4	12	0.2
		1	1	
ABAET	Amphora (Dr.20)	5	102	
VRW		1	15	
SGSW		1	57	
<b>Total</b>		<b>382</b>	<b>3759</b>	<b>2.17</b>

TABLE 2: Quantification of pottery fabrics and forms from Period 2 pit [599]

are quite useful for comparative purposes since the former appears to date to the earlier part of Period 3 (c. mid 2nd–early 3rd century), whilst the latter seems to span the whole period, with the latest fills [580]/[572], apparently having been deposited slightly after most other features had filled up and gone out of use, probably in the mid/late 4th century.

The quantification of fabrics in Period 3 is presented in Table 3. Looking at the two best dated groups it is worth noting that there appears to be a dramatic reduction in black surface wares over time. In the earlier of these, from ditch [117], this fabric makes up nearly half of the sherds compared with less than 5% in the upper fills of pond [579]. By contrast sandy grey wares increase, but in a much less marked way, from c. 40% in ditch [117] to c. 50% in the upper fills of pond [579].

Overall, Period 3 is characterised by an expansion in the range of minor fabric types occurring, although this appears to be a gradual process since a fairly limited range of fabrics is seen in ditch [117], where only a few sherds of Colchester Colour-Coated Ware and unsourced black burnished wares differentiate it from the earlier period.

Period 3 coarse wares include black burnished wares, Rettendon-type grey wares, Colchester buff wares and Late

Roman shelly wares. Regionally-traded fine wares include Colchester and Nene Valley colour-coated wares and Hadham and Oxfordshire red and white-slipped wares. Imported wares are made up by central and east Gaulish samian, Baetican amphora and a single sherd of Mayen ware/Eifelkeramik. However, several of these fabric types are disproportionately found in the latest group from the upper fill of pit/pond [579]. In particular it is notable that Oxfordshire red-slipped wares, Late Roman shelly wares and Rettendon-type wares are either absent or only represented by one or two sherds in the vast majority of Period 3 features. By contrast this Oxfordshire red-slipped ware makes up over 20% of the sherds from upper fills [572]/[580] in pond [579]; late shelly wares make up 10%. In good stratified sequences from Roman towns like London and Chelmsford, it is quite consistently shown that these fabrics became a much larger component of assemblages after the mid 4th century (Symonds and Tomber 1991, 77; Going 1987, 115–116). Although little quantified data on fabric proportions over time exists from rural south Essex, a similar pattern is hinted at in the description of the pottery by period at North Shoebury (Leary 1995, 95–96).

A quantification of form by broad vessel class for the Period 3 assemblage component is provided in Table 4. Plain jars are the most commonly observed form during this period. No one type predominates, but plain G23, G24, G28, G29 and G36 forms (*e.g.* Figs 6.4, 6.9, 6.10) are well represented, as are G9 black-burnished style everted rim jars (Fig. 6.5) and storage jars like G44 and G45 and wide-mouth jars E2 and E5.

In this period black burnished style dish/bowls B1–B6 make up more than two thirds of the forms quantified by EVE (*e.g.* Figs 6.6, 6.7). It is probably of some chronological significance that the rounded rim B4 type is by far the most common form type, outnumbering bead-and-flange B6 bowls by a factor of more than 2:1. This appears strongly indicative of a peak of activity in the 3rd century, since the latter would have completely replaced the former after c. AD 300.

Most of the other table ware form types are predominantly associated with Oxfordshire, Hadham and Nene Valley wares although some examples in unsourced coarse wares were also noted. They include H24 and H26 beakers, samian style dishes and bowls B6, B10, C8 and C25 and D5 mortaria (*e.g.* Figs 6.8, 6.12, 6.13).

#### *Roman pottery illustration catalogue* (Fig. 6)

Period 2; fill [601] of pit [599] (G54, OA9)

6.2. Large necked jar with stabbed shoulder decoration (G22); coarse storage jar fabric (STOR)

6.3. Poppy-head style beaker form (H6) although lacking barbotine dot decoration and possibly with a trace of rouletting; North Kent fine grey ware (NKG)

Period 3; fill [118] of ditch [117] (G9, OA10)

6.4. Necked jar with long neck and slight body carination (G29); coarse unsourced grey ware (GRS)

6.5. Jar with everted rim and shoulder cordon, decorated with burnished wavy lines; black surfaced fabric (BSW)

6.6. Rounded rim bowl; black burnished style fabric (BB)

6.7. Rounded rim bowl; black burnished style fabric (BB)

6.8. Waisted beaker (H26); coarse unsourced grey ware (GRS)

Period 3, fill [580] of pit/pond [579] (G52, OA9)

6.9. Necked jar; coarse unsourced grey ware (GRS)

6.10. Necked jar; coarse unsourced grey ware (GRS)

<b>Fabric</b>	<b>Fabric description</b>	<b>Count</b>	<b>% Count</b>	<b>Weight (g)</b>	<b>% Weight</b>
ABAET	Baetican Dressel 20 amphora	15	0.8%	1047	4.3%
BB	Un sourced black-burnished ware	12	0.6%	475	1.9%
BB1	Black-Burnished ware 1	8	0.4%	87	0.4%
BB2	Black-Burnished ware 2	10	0.5%	47	0.2%
BSW	Black-surfaced wares	599	30.9%	5058	20.6%
BUF	Un sourced buff wares	7	0.4%	69	0.3%
CGSW	Central Gaulish samian	11	0.6%	127	0.5%
CGSW (MV)	Central Gaulish (Les-Martres-de-Veyre) samian	1	0.1%	14	0.1%
COLB	Colchester buff ware	2	0.1%	15	0.1%
COLC	Colchester Colour-Coated Ware	1	0.1%	1	0.0%
EGSW	East Gaulish samian	2	0.1%	14	0.1%
ESH	Early shell-tempered wares	9	0.5%	46	0.2%
GRF	Fine grey wares	11	0.6%	17	0.1%
GROG	Grog-tempered ware	2	0.1%	11	0.0%
GRS	Sandy grey wares	804	41.4%	7360	29.9%
HAR	Hadham grey wares	1	0.1%	8	0.0%
HAX	Hadham oxidised wares	26	1.3%	184	0.7%
HGG	Highgate grey wares	1	0.1%	9	0.0%
LSH	Late shell-tempered ware	49	2.5%	180	0.7%
MEK	Mayen ware/Eifelkeramik	1	0.1%	22	0.1%
MIC	Romano-British mica-dusted wares	11	0.6%	44	0.2%
MICW	Miscellaneous coarse-tempered Late Iron Age wares	1	0.1%	4	0.0%
MWSRF	Miscellaneous fine white- or cream-slipped red-buff wares	8	0.4%	27	0.1%
MWSRS	Miscellaneous white- or cream-slipped sandy red wares	1	0.1%	2	0.0%
NKG	North Kent grey wares	17	0.9%	57	0.2%
NVC	Nene Valley Colour-Coated Ware	4	0.2%	103	0.4%
OXRC	Oxfordshire Red Colour-Coated Ware	67	3.5%	463	1.9%
OXSW	Oxfordshire white-slipped red wares	3	0.2%	60	0.2%
RED	Miscellaneous oxidised wares	42	2.2%	176	0.7%
RET	Rettendon-type wares	57	2.9%	1311	5.3%
SGSW	South Gaulish samian (La Graufesenque)	1	0.1%	1	0.0%
STOR	Storage jar fabrics	143	7.4%	7348	29.9%
TN	Terra nigra	2	0.1%	1	0.0%
VRW	Verulamium region ware	11	0.6%	187	0.8%
<b>Total</b>		<b>1940</b>	<b>100.0%</b>	<b>24575</b>	<b>100.0%</b>

TABLE 3: Quantification of pottery fabrics in Period 3

6.11. Bead-and-flange bowl (B6); Nene Valley Colour-Coated Ware

6.12. Flanged bowl (C8); Oxfordshire red-slipped ware

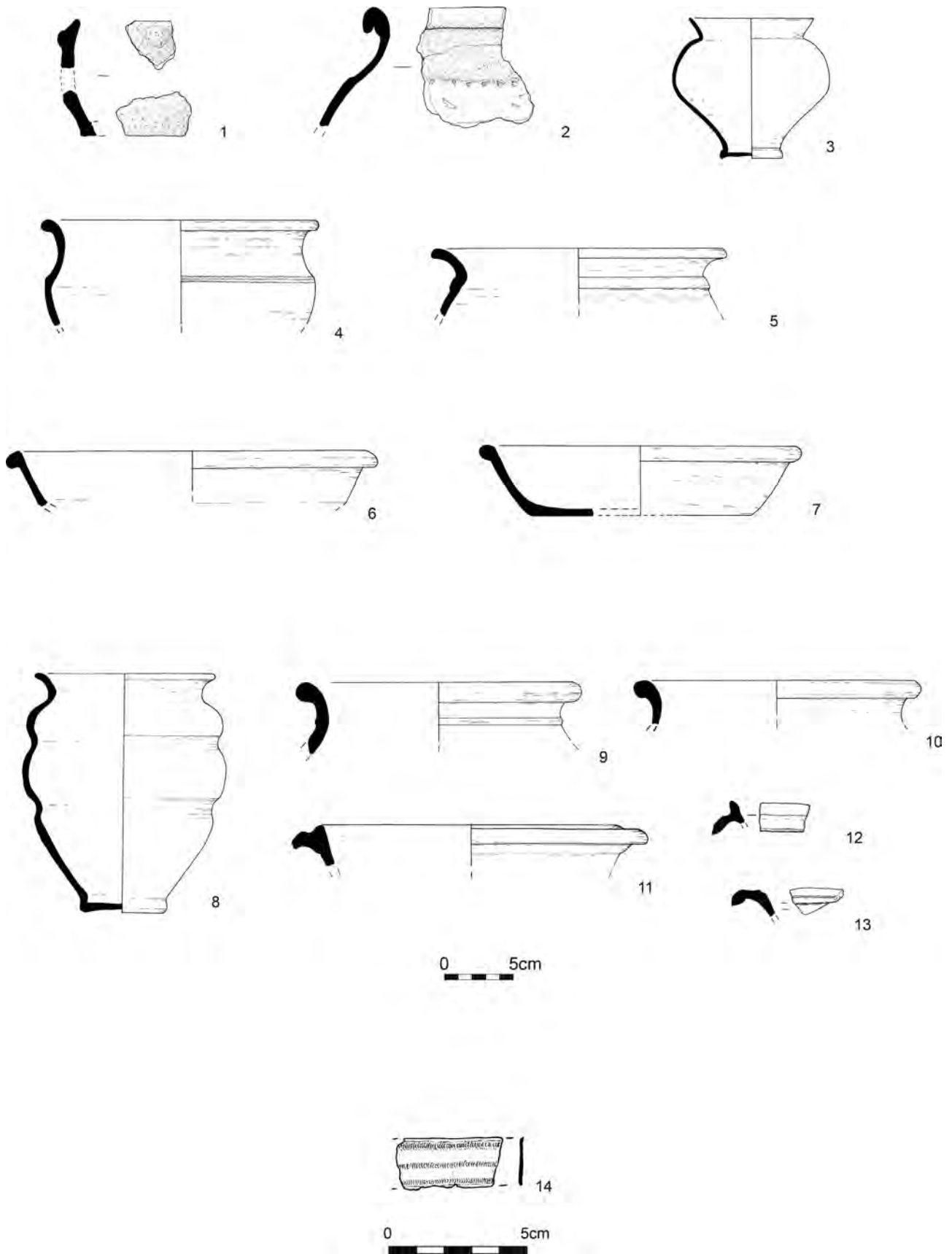
6.13. Flanged mortarium; Oxfordshire red-slipped ware

### **Ceramic Building Materials** by Luke Barber

The excavations recovered 231 pieces of ceramic building material, weighing 14,926g, from sixty-eight numbered contexts. The vast majority of the assemblage is of the Roman period (206 pieces weighing 14,262g); even when these pieces

are too small to be certain of form they are in definite Roman fabrics.

Six Roman fabrics were identified, none of which is particularly chronologically diagnostic; these are summarised in Table 5. They are widely mixed and it is clear that much material has either been re-used or reworked and some of the fabrics were potentially long-lived. However, both RB5 and RB6 were found in association with ditch [449] (G44, OA5), dated to the 1st century, suggesting both these fabrics have an early





Form	EVE	% EVE
Amphora	0.22	1.4%
Beaker	0.67	4.1%
Bowl	1.07	6.6%
Dish	6.47	39.7%
Jar	5.15	31.6%
Jar/Bowl	1.58	9.7%
Mortarium	0.07	0.4%
Wide mouth jar	1.05	6.4%
<b>Total</b>	<b>16.28</b>	<b>100.0%</b>

TABLE 4: Quantification of broad vessel class in Period 3

start date. Likewise there is an RB1 fragment from context [347] (G14, OA2), dated to the mid 1st to 2nd centuries, though RB2–4 first appear in later 2nd- to 3rd-century contexts. The RB5 and RB6 fabrics in these later contexts could represent a continuation of production or the re-use of earlier materials. Larger more tightly dated assemblages would be needed to confirm any chronological progression of these fabrics.

A range of typical Roman ceramic building material forms are present within the assemblage. Tegula tile fragments are the most common type and at least thirteen examples of flanges are present though a number do not have their full profiles surviving. Brick and imbrex tiles are also present in smaller quantities with a single fragment of box flue. The box

flue tile fragment (RB5) measures between 18mm and 21mm thick and was recovered from ditch [684] (G60, OA14) dated to the mid 2nd to mid 3rd centuries. Although the fragment has no combing, part of the corner return is present. A further tile (fabric RB4 from ditch [681], G11 OA9) has a ‘batch’ or ‘signature’ mark. This is of the typical single shallow semi-circular finger line type. There is also an unstratified fragment from Trench 8 with a dog paw print.

There is no particularly sizeable or diagnostic building material assemblage from any context to indicate the presence of a destroyed building, hearth or other structure close by. The majority of the deposition was from the fills of the ditches, but the pits also yielded some fragments.

**Fired Clay** by Trista Clifford

A small assemblage of 121 fragments of fired clay weighing 3,694g was recovered. The assemblage was assessed by eye for form and function, and for fabric type using a x20 magnification microscope. Four fabrics were observed. Table 6 shows an overview of the assemblage by period and fabric. Mean fragment weight (MFW) is 30.5g, indicating a fairly well preserved assemblage, although abrasion is apparent on most pieces.

Very few pieces appear completely un-utilized; most at least have one flat or smoothed face. Period 2 pit fills [434] (G33, OA5) and [465] (G31, OA3) produced several fragments of possible cylindrical loom weight or pedestal from Early Roman contexts. Another probable pedestal fragment came from ditch fill [104] (G59, OA6) together with a possible oven plate. Period 3 ditch fill [494] (G22, OA15) contained

Fabric	Description	Comments
RB1	Rare/sparse fine sand with sparse white calcareous inclusions to 0.5mm	A well fired. Almost silty fabric
RB2	Silty slightly micaceous matrix with rare fine sand and common red iron oxide and white marl pellets to 2mm	
RB3	Silty fabric with rare quartz inclusions to 0.25mm, sparse red iron oxide pellets to 3mm and moderate black organic streaks and voids to 4mm	A notably soapy feel
RB4	Common to moderate fine/medium quartz sand with moderate white calcareous (chalk) inclusions to 5mm (most to 1mm) and rare/sparse dull purple iron oxide inclusions	A well fired fabric usually
RB5	Moderate fine sand, with some tiles occasionally having very rare inclusions of iron oxide or flint to 4mm	Generally a very clean uniform fabric and the dominant one on site
RB6	Moderate to abundant medium/coarse sand throughout fabric with some black streaking from organic inclusions	

TABLE 5: Roman ceramic building material fabrics

	Period 2	Period 3	Unphased	Total
Fabric 1	22/1724g			22/1724g
Fabric 2		5/70g	4/16g	9/86g
Fabric 3			5/24g	5/24g
Fabric 4	80/1468g	5/392g		85/1854g
<b>Total</b>	<b>102/3192g</b>	<b>10/42g</b>	<b>9/40g</b>	<b>121/3694g</b>

TABLE 6: Overview of the fired clay assemblage (count/ weight)

fragments with single or intersecting wattle impressions which probably derive from structural daub. Possible briquetage came from undated features [151] and [712] (G51, OA1).

**Worked and unworked stone** by Luke Barber

The excavations recovered 34 pieces of stone, weighing 7,874g, from 18 individually numbered contexts. Much of it was unworked, locally occurring stone which is not referenced further here.

Non-local stone is dominated by fragments of rotary quern. Just two quernstone types are represented, Millstone Grit from Derbyshire and Mayen lava from the Rhineland (though the latter was probably redistributed from London). Both types are apparent from the 2nd century onward, but some of the undated contexts could be earlier. The only other non-local stone type consists of a piece of intrusive 19th-century Welsh roofing slate.

The Millstone Grit quern fragments (4/1642g) are from stones measuring between 35mm and 50mm thick in contexts [118] (G9, OA10), [420] (G42, OA12) and [598] (G51, OA1). Unfortunately, all fragments are too small to discern if upper or lower stones are present, but all show traces of deeply cut grooving on their grinding faces with various degrees of wear. The lava querns range from 21mm to 42mm thick, with many pieces also exhibiting tooled grooving on all faces including the edges. As with the Millstone Grit examples there is a range of wear on the grinding faces. However, at least three of the lava fragments are from upper stones (ditch [649] fill [647] (G26, OA9), gully [642] fill [651] (G26, OA9), and ditch [760] fill [762] (G6, OA8)). Of these three, two have measurable diameters of c.360mm and c.400mm (contexts [647] and [762] respectively).

**Metalwork Finds** by Trista Clifford

A small number of metal finds were recovered. Most were in a poor condition, and unfavourable soil conditions account for the lack of further metalwork objects recovered. The metal objects are described below by function.

*Dress accessories*

Two bracelets were recovered, both Roman in date. Decorated *armillae* similar to RF<1> from Colchester and Baldock are of 1st–2nd-century date (Crummy 1985; Stead and Rigby 1986, 125); the armilla is perhaps suggestive of a military presence (Crummy 2005).

1. RF <1> Copper-alloy armilla (Fig. 6.14). Incomplete. Folded fragment. W18mm Lc.20mm. This is an example of Group C, decorated with three symmetric bands of knurled cable decoration; it probably dates to the 1st- 2nd century AD. Pit fill [601], G54 OA1 Period 2
2. RF <2> Copper-alloy bracelet. Incomplete. Three fragments. Total L53mm W4mm Th2mm Oval sectioned, bracelets of this type are a fairly common Late Roman find, particularly from grave deposits. Similar examples were recovered from Colchester (Crummy 1983, fig. 42). Pit fill [635], G53 OA8 Period 3

*Fixtures and fittings*

3. RF<5> Iron double spiked loop. Complete. Measurements taken from x-radiograph: L63mm W30mm Th8mm. Structural fittings such as this are fairly common; they had many uses including attachment of drop handles. Manning (1985; R39–46) illustrates many comparable examples. Pit fill [375], G35 OA10 Period 3

*Tools*

4. RF <3> Iron ?tool blade. Incomplete. At least three fragments from the same object; eight associated fragments. L208mm W38mm tapering to 11mm Th8mm. Upper edge curved, rectangular section with rounded corners. Possibly from a cutting tool such as a scythe or sickle. Ditch fill [716], G60 OA14 Period 3

*Commerce*

5. RF<4> Copper alloy coin. Complete. Diameter 28mm. *Dupondius* or *As*, AD43–c.260. Illegible faces, worn and corroded. Pit fill [418], G43 OA5 Period 2

**Animal Bone** by Gemma Ayton

The assemblage contains 771 fragments of animal bone from sixty-eight contexts including ditch, pit and gully fills; all date to the Roman period. The assemblage is in poor condition and the majority of the bone is small, poorly preserved and unidentifiable.

There are 270 identifiable fragments of bone and teeth. Cattle dominate, followed by sheep and horse (Table 7). The majority of the assemblage is comprised of fragments of tooth enamel which survives comparatively well in the archaeological record. The relative absence of bones is due to taphonomic factors rather than selective butchery techniques. This limited range of elements provides little insight into the local husbandry techniques. Just one specimen displayed evidence of butchery; a small chop mark was noted on the distal articulation of a caprine femur.

Species	NISP	MNI
Cattle	176	4
Sheep	4	1
Sheep/Goat	4	1
Horse	45	1
Large Mammal	39	
Medium Mammal	2	

TABLE 7: Animal bone NISP (Number of Identified Specimens) and MNI (Minimum Number of Individual) counts

**Cremated Human Bone** by Elissa Menzel

A total of 2,820.6 grams of burnt bone was recovered from four urned burials [668], [669], [670], [671] and two un-urned burials [672], [674] (G56 OA7), all dated to the mid-1st to mid-2nd centuries. All the graves were truncated, with a maximum surviving pit depth of 0.28m ([669]).

The weight of recovered cremated bone ranged between 105.1 grams ([669]) and 1186.9 grams ([668]), with only burial [668] containing a quantity nearing that expected for an entire individual (McKinley 1989) (Fig. 7). The severe truncation of the burial pits and vessels, as well as a lack of protective vessel in burials [672] and [674], likely contributed to the low quantities of bone recovered. Despite significant fragmentation of the vessel containing burial [668] this grave was the least truncated and likely contributed to the significant quantity of bone recovered. Approximately 10% of bone from burial [669] had weathered surfaces, probably the result of exposure following truncation. The remainder contained well-preserved burnt bone.

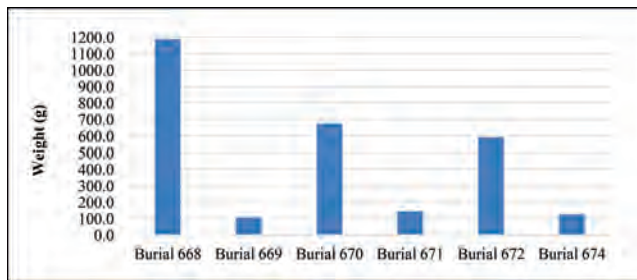


FIGURE 7: Total weight of bone by context

There was no evidence of repeated elements or osteological inconsistencies within any context assemblage, suggesting that there was a single individual in each grave. Therefore, there were a minimum number of six individuals represented at this site. Four burials ([668], [670], [672], and [674]) contained the remains of adult individuals, with the remaining burials containing individuals of an indeterminate age. Due to fragmentation their biological sex was not established. There were no indications of disease in the assemblage.

The majority of bone fragments were white in colour with only burial [670] containing approximately 10% fragments of a dark blue-grey colour. This colouring is indicative of an efficient cremation process with pyre temperatures reaching a minimum of 600°C (Holden *et al.* 1995a and b). The maximum fragment size recorded was 76.9mm from burial [668]. Estimated mean fragment size ranged from 10mm ([669], [672], [671]) to 20mm ([668]). Burial [668] contained the largest percentage of fragments in the biggest fraction, which is likely due to its relatively low level of truncation (Fig. 8).

All of the burials contained bone from each of the body areas. The upper limb was the most abundantly represented area forming between 7.1% and 48.9% of the assemblages. The least represented elements were from the axial skeleton, forming between 2.6% and 13.9% of the assemblages. The relatively high percentage of skull fragments identified in burial [674] is likely due to ease of recognition of the distinctive cranial bone, rather than preferential collection. The degree of truncation undoubtedly compromises the interpretation of any patterns in the collection process. However, with the exception of burial [674], each burial contained a mixture of fragments from these skeletal areas that are anatomically distinct. Bones from all areas of the skull (i.e. frontal, occipital and temporal bone fragments), vertebral bodies and neural arches, humeral and radial bone fragments as well as bones of the wrist and hands, and both upper and lower leg bone fragments were

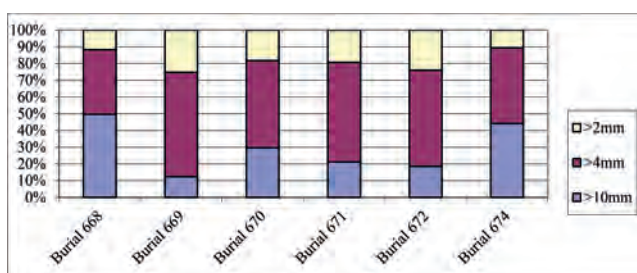


FIGURE 8: Percentage of burnt bone in each measured fraction

identified. This range of distinct elements suggests a fairly thorough collection of bone and may suggest that the majority of burials may have contained nearly complete individuals prior to truncation.

### Charred plant macrofossils and charcoal by Lucy Allott and Karine Le Hégarat

Bulk soil samples were collected from a Middle Bronze Age pit, the six Roman cremation deposits, Roman pits and ditches and two undated pits. These yielded varying quantities of environmental remains including charred macroplant remains and wood charcoal (Le Hégarat 2014).

Identifications were provided for macro-botanical remains present through reference to modern comparative material and reference manuals (Cappers *et al.* 2006; Jacomet 2006; NIAB 2004). Nomenclature used follows Stace (1997). Charcoal analysis followed standardised procedures (Gale and Cutler 2000) and taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000; Schoch *et al.* 2004; Schweingruber 1990).

The majority of soil samples produced small flots with fine rootlets abundant. These are indicative of small scale modern disturbances which could have resulted in a degree of mixing and the introduction of modern material. The concentration of charred plant remains was very low with only three of the samples (<1>, <3> and <7>) containing any macrofossils and only sample <1> (undated pit [371], G34, OA4) producing more substantial material.

### Charred macro-plant remains

The three assemblages that contained charred plant macrofossils are relatively consistent, with chaff predominant over grains. Grains of wheat (*Triticum* sp.) and barley (*Hordeum* sp.) were evident and, although the wheat grains were not identified beyond the genus level, the presence of glume bases and spikelet forks suggests that hulled wheat (either spelt or emmer) was represented amongst them. Moderately well-preserved glumes of spelt (*Triticum spelta*) were identified in samples <1> undated pit [371] and <3> the fill [416] of Roman ditch [413] (G16, OA11). Spelt is usually the best represented hulled wheat in macroplant assemblages from the Iron Age and Roman periods. Emmer, which was not positively identified in the current assemblage, is also occasionally found alongside spelt (and barley) in Essex (Carruthers 2008; Parks 2012).

The assemblages of charred macroplant remains are characteristic of domestic waste. The material represents secondary deposits, and it is more likely to indicate waste from more than one episode of burning. The rich assemblage of chaff and charred weed seeds from pit [371] are typical waste from crop cleaning. They are commonly found on Iron Age and Romano-British sites where routine processing of spikelets of hulled wheat took place on a regular basis (Hillman 1981; 1984). Charred grains were also common in this sample; they may have become charred accidentally while in, or during preparation for, storage, or they may have been burnt because they were infected and inedible. Excavation at North Shoebury, c.7km south-east of Rochford, also produced rich mixed assemblages of charred crop remains (Murphy 1995). Samples <2> from pit [401] (G66, OA2) and <3> from the

top fill of ditch [413] (G16, OA11) contained fewer remains and are more typical of random discards of burnt debris including cereal processing waste or food preparation debris and such material could have accumulated gradually within open features.

#### *Wood charcoal*

Charred wood fragments were more prevalent, with samples <1> and <5> producing moderate assemblages. Charcoal deposit, [499] <5>, from Middle Bronze Age pit [498] (G23, Period 1) comprised oak (*Quercus* sp.) (ninety-three fragments), with seven fragments of vitrified, distorted wood charcoal. These vitrified specimens could not be further identified due to the amorphous, fused and glassy appearance of their anatomical structures.

The wood charcoal assemblage recovered from Middle Bronze Age pit [498] is of particular interest because of its association with an unusual pottery assemblage that appears to represent a deliberate structured deposition event (see Doherty above). Although it is possible that charcoal within such a feature could derive from redeposited material or material that accumulated gradually, this is not supported by the pottery assemblage or by the exclusive presence of oak wood charcoal in the material analysed. In this instance, it is more likely that the assemblage is associated with the pottery and formed part of the structured deposition. The presence of a single taxon suggests a high degree of selection and although oak is a common component in archaeological deposits and was used for many purposes, either as fuel or timber, it is also a common component of features associated with funerary activities and this feature could indeed represent a token 'burial' as suggested in the pottery report (see Doherty above).

The predominance of a single taxon in charcoal assemblages from Bronze Age features associated, or thought to be associated, with funerary rites is not unusual (Thompson 1999, 253). In many instances, such as Hill Farm, Tendring (Mooney this volume, 35–36) or Stanstead Airport (Carruthers 2008), this wood is oak or ash and given they have good burning properties (Taylor 1981) these large timbers would have been eminently suited to pyre construction providing sufficient heat required for the combustion processes. Challinor (2009, 92) records a similar occurrence, to the Brays Lane assemblage, within a mortuary related vessel at Star Lane, Manston (Egging Dinwiddy and McKinley 2009, 81–82). In contrast, at Heathrow Terminal 5 a more diverse range of taxa are recorded in cremation and funerary related features although often with a single taxon dominating each assemblage (Challinor 2010). The significance of individual taxa in relation to the individual being cremated or the different aspects of the mortuary rite are not clear, however; a study at Raunds (Campbell 2007) has demonstrated correlations between the age and sex of the individuals and the types and range of taxa used in the cremation process. Whether these are related to the practicalities of burning individuals or other cultural factors remains unclear and there is significant further synthetic work that could be undertaken on charcoal assemblages from cremations across the region.

## DISCUSSION

Prehistoric material is limited to a single feature and a small number of residual artefacts in later contexts. Nevertheless, the Middle Bronze Age token burial is a relatively important discovery in itself. Its presence, rarity and the unusual form of the pottery suggests that there was occupation of that period in the vicinity and that there was a ritual element to it. If the token burial was placed on the periphery of a cremation cemetery, as indicated by parallels from Kent (see Doherty above), it is possible that such a cemetery existed close by, perhaps to the north outside the edge of the excavated area.

The Roman period is well represented in the archaeology of south-east Essex, but local sites and findspots of this date are more concentrated in the area south and west of Rochford, probably as a consequence of brickearth and gravel extraction and building work in the area (Wymer and Brown 1995, 161). Sites with a variety of agricultural features are known in the vicinity of Southend Airport, for example Marshall's Farm (Eddy 1981, 51) and Westbarrow Hall Farm (Bennett 1998, 201), both of which are about 2km from Brays Lane. Roman activity in the area is characterised by the exploitation of the free-draining brickearth geology for growing cereal crops and the coastal marshland for sheep farming and salt production (Medlycott and Atkinson 2012, 93). Very little evidence of Roman occupation has been found in Rochford itself apart from an alleged Roman building beneath the hospital, noted in the 1930s (Andrews 2004, 70). There have been no such discoveries of the period to the north and east of Rochford prior to the excavations at Brays Lane. The presence of archaeological remains spanning almost the entire Roman period in this location is therefore of considerable local importance.

At least two phases of landscape enclosure systems are evidenced, with their various land-use entities containing pits and gullies, though no features of structural or more definitively occupational nature are apparent. Taken as a whole, the landscape in the Early Roman period was a simple system of rectangular fields defined by narrow ditches. While some of the detail was lost due to later truncation, enough survived to postulate an agricultural landscape that was probably largely arable given the relatively small and narrow dimensions of the ditches which would have been unsuitable for containing livestock. They may have functioned as drainage for the fields, rather than boundaries for animal paddocks during the earlier Roman period. The charred plant remains from pit [371] (G34, OA4) are clearly indicative of crop processing (see Allott and Le Hégarat above), although caution must be exercised with this interpretation as the feature is not securely dated. The presence of a small Early Roman cremation cemetery in one of the enclosures is perhaps the only reliable indicator of occupation in the near vicinity.

In the mid to Late Roman period there is a change in the agricultural methods practised on the site. The size and depth of the enclosure ditches increase markedly and some of the internal elements are more indicative of animal management than arable land use. The larger ditches, together with presumed banks of upcast earth and perhaps hedges, would have provided containment for animals and the overall layout of Period 3, with wide passages between the enclosure ditches, is suggestive of the corralling of animals into pens. The addition of the G22 ditch to provide a barrier on the eastern side of OA15 in particular points towards this function. Open Area 15 itself

can be seen as a passageway for animals which were funnelled through the narrowing gap created by the enclosure ditches into OA9 and OA13, rather than an enclosure in its own right. However, if this is the case it implies that the small cremation cemetery beneath had fallen into disuse and been forgotten prior to the Period 3 reorganisation. Other elements including the watering hole in OA9, the parallel ditches between OA8 and OA9 and the subdivisions between OA10, OA11 and OA12 all make more sense as corrals or holding pens than as crop divisions, irrigation or drainage. The animal bone finds provide little data, mainly due to poor preservation conditions. The only butchered bone from the entire site was a sheep/goat femur found in the G24 ditch in OA14.

While the excavated remains are those of a primarily agricultural landscape, the existence of a Roman rural settlement in the immediate vicinity is strongly implied, although its precise location remains uncertain. The boundary ditches and pits that comprise the majority of the excavated features collectively contain a fairly diverse assemblage of cultural material suggestive of disposal from a nearby consumption site of average wealth and status. However, there is a possible negative bias in the recovery of higher status artefacts as the survival of metalwork was poor due to the soil conditions. It would be reasonable to suggest that a farmstead existed close by, perhaps to the north on the slightly higher ground.

The small cremation cemetery on the eastern edge during Period 2 further indicates the presence of a dwelling such as a farmstead. Although the assemblage of cremation burials is relatively small and heavily truncated, analysis nonetheless contributes to the understanding of the Roman cremation burial rite in Essex. The limited number of burials would suggest a relatively short duration of use and is perhaps indicative of a small, rural family cemetery. It has been posited many times elsewhere that the practice of this burial rite may not have found retrieval of the entire individual necessary, but that a 'token' collection including all areas of the body was sufficient (McKinley 2000, 43). The evidence from these burials is in keeping with this trend found elsewhere in Essex and, indeed, across Roman Britain. Although small clusters of Roman cremation burials have been reported in Rochford, Foulness Island, Great Wakering, and Shoeburyness there are no published reports of Roman cremation burials in the immediate vicinity available for comparison.

The agricultural use of the land appears to have ceased at the end of the Roman period and there was no evidence that the site continued to be farmed or otherwise utilised in the Saxon or the later medieval periods, a factor which contributed to the survival of the Roman landscape. Post-medieval population growth and the increase of agriculture across the region led to the site being once more under the plough, probably from the 18th century onwards.

## CONCLUSION

The archaeological investigation at Brays Lane has demonstrated a Roman agricultural presence in this area of the south-east Essex landscape from the late 1st century into the 4th century. The apparent predominance of arable cultivation during Period 2 and pastoral farming in Period 3 has been demonstrated, but it is equally possible, if not probable, that a variable degree of mixed farming was undertaken in both periods. The evidence is derived from a relatively small

investigation area and the extent and type of settlement which was exploited by the farm (or farms) has not been established; the farmland may have provided a subsistence level of food production to a small community or it could have been part of a larger economic enterprise supplying produce to a wider hinterland. A Roman subsistence farm would have required an area of 1.7ha or greater (Medlycott and Atkinson 2012, 91). The combined excavated area at Brays Lane added up to 1.08ha and extrapolation from the suspected field sizes (assuming they were roughly square) suggests a minimum farmed area of 4ha. If it was a single enterprise, the farm was perhaps therefore run for profit, not merely subsistence.

Over the three or four centuries of Roman activity the agricultural regime may have changed considerably as has been demonstrated at, for example, Great Holts Farm, Boreham, a villa site where organised intensive agriculture was undertaken from the 2nd to 4th centuries (Germany 2003). Here a mixed farm with an emphasis on arable production provided crops for the general market and the development of a heavier plough in the late 3rd century, possibly in response to increasing demand from a growing local population, led to the introduction of larger cattle as draft animals. There were clear indications of infrastructure and organisation beyond a single farming community (Germany 2003, 222–223).

In his 1996 Writtle Conference paper discussing the then current understanding of the Roman countryside, C.J. Going states "Of settlements classifiable as villages and hamlets, or small, isolated rural sites, we know all too little" (1996, 100). This remains true, although knowledge has slowly begun to increase. Landscape studies relying on archaeologically recovered material are by necessity fragmentary and excavation can merely provide small windows onto the overall picture of Roman rural settlement and their context within the landscape. The site at Brays Lane, while not particularly rare or unusual in Essex, nevertheless contributes to filling a gap in the local area for the Roman period and has expanded the corpus of data on the nature of Roman rural occupation and land use in the county.

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## BIBLIOGRAPHY

- Andrews, D.D. 2004, 'Richard Lord Rich's mansion at Rochford Hall', *Essex Archaeol. Hist.*, 3rd Ser., 34, 69–90
- Bennett, A. (ed.) 1998, 'Archaeology in Essex 1997', *Essex Archaeol. Hist.*, 3rd Ser., 29, 194–215
- BGS 2015, Available: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (Accessed 24 September 2017)

- Biddulph, E., Compton, J. and Martin, T.S. 2015, 'The Late Iron Age and Roman Pottery', in Atkinson, M. and Preston, S.J., *Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993—5, Volume 2*, Internet Archaeol. 40. Available: <<http://dx.doi.org/10.11141/ia.40.1.biddulph1>> (Accessed 24 September 2017)
- Brown, N.R. 1995, 'Later Bronze Age and Early to Middle Iron Age pottery', in Wymer, J.J. and Brown, N.R., 1995, *Excavations at North Shoebury: settlement and economy in South-East Essex 1500BC–AD1500*, E. Anglian Archaeol. 175, 77–88
- Campbell, G. 2007, 'Cremation deposits and the use of wood in cremation ritual', in Harding, J. and Healy, F., *The Raunds Area Project: A Neolithic and Bronze Age Landscape in Northamptonshire*, 30–33 (Swindon, English Heritage)
- Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006, *Digital Seed Atlas of the Netherlands*. Groningen Archaeological Series 4 (Netherlands, Barkhuis)
- Carruthers, W. 2008, 'Chapter 34: Charred, mineralized and waterlogged plant remains', in Cooke, N., Brown, F. and Phillpotts, C. (eds), *From hunter gatherers to buntsmen. A history of the Stansted Landscape*. Framework Archaeology Monograph 2 (Oxford)
- Challinor, D. 2009, 'Charcoal from the potentially mortuary related vessel deposit at Star Lane', in Andrews, P., Egging Dinwiddy, K., Ellis, C., Hutcheson, A., Phillpotts, C., Powell, A.B. and Schuster, J., *Kentish Sites and Sites of Kent: a Miscellany of Four Archaeological Excavations*. Wessex Archaeology Report 24, 92 (Salisbury, Wessex Archaeology)
- Challinor, D. 2010, 'The Wood Charcoal', in Lewis, J., Leivers, M., Brown, L., Smith, A., Cramp, K., Mephram, L. and Phillpotts, C. (eds.), *Landscape Evolution in the Middle Thames Valley: Heathrow Terminal 5 Excavations Volume 2*, 11–15 (Oxford/Salisbury, Framework Archaeology)
- Crummy, N. 2005, 'From Bracelets to Battle-Honours: Military Armillae from the Roman Conquest of Britain', in Crummy, N., Bailey, D.M., Johns, C. and Allason-Jones, I. (eds), *Image, Craft and the Classical World: Essays in Honour of Donald Bailey and Catherine Johns*, Instrumentum Monogr. 29, 93–105
- Eddy, M. (ed) 1981, 'Excavations in Essex, 1980', *Essex Archaeol. Hist.*, 3rd Ser., 13, 48–62
- Egging Dinwiddy, K. and McKinley, J.I. 2009, 'A Potentially mortuary-related deposit at Star Lane', in Andrews, P., Egging Dinwiddy, K., Ellis, C., Hutcheson, A., Phillpotts, C., Powell, A.B. and Schuster, J. *Kentish Sites and Sites of Kent: a Miscellany of Four Archaeological Excavations*, Wessex Archaeol. Rep. 24, 81–82 (Salisbury, Wessex Archaeology)
- Gale, R. and Cutler, D. 2000, *Plants in Archaeology*, (Otley/London, Westbury/Royal Botanic Gardens, Kew)
- Germany, M. 2003, *Excavations at Great Holts Farm, Boreham, Essex: 1992–94*, E. Anglian Archaeol. 105
- Going, C.J. 1987, *The mansio and other sites in the south-eastern sector Caesariomagus: the Roman pottery*, Counc. Brit. Arch. Res. Rep 62, Chelmsford Archaeol. Trust Rep. 3.2
- Going, C.J. 1996, 'The Roman Countryside', in Bedwin, O. (ed.), *The Archaeology of Essex: Proceedings of the Writtle Conference*, 95–107 (Chelmsford, Essex County Council)
- Hather, J.G. 2000, *The Identification of the Northern European Woods: A Guide for archaeologists and conservators* (London, Archetype Publications)
- Hawkes, C.F.C. and Hull, M.R. 1947, *Camulodunum, First report on the excavations at Colchester, 1930–39*, Research Committee of the Society of Antiquaries of London, 14 (Oxford, Society of Antiquaries)
- Hillman, G. 1981, 'Reconstructing crop husbandry practices from charred remains of crops', in Mercer, R. (ed.), *Farming practice in British prehistory*, 123–62 (Edinburgh, Edinburgh Univ. Press)
- Hillman, G. 1984, 'Interpretation of archaeological plant remains: The application of ethnographic models from Turkey', in van Zeist, W. and Casparie, W.A. (eds), *Plants and Ancient Man: studies in palaeoethnobotany*, 1–41 (Rotterdam, Balkema)
- Holden, J., Phakey, P. and Clement, J. 1995a, 'Scanning electron microscope observations of incinerated human femoral bone: a case study', *Forensic Science International*, 74, 17–28
- Holden, J., Phakey, P. and Clement, J. 1995b, 'Scanning electron microscope observations of heat-treated human bone', *Forensic Science International*, 74, 29–45
- Jacomet, S. 2006, *Identification of cereal remains from archaeological sites. 2nd ed.* Archaeobotany laboratory, IPAS, Basel University, unpubl. manuscript
- Le Hégarat, K. 2014. 'Environmental samples', in Miciak, L. and Atkinson, M., *Brays Lane Rochford, Essex*. Unpub. post-excavation assessment, Archaeology South-East Rep. 2014093
- Leary, R.S. 1995, 'Roman pottery', in Wymer, J.J. and Brown, N.R., 1995, *Excavations at North Shoebury: settlement and economy in South-East Essex 1500BC–AD1500*, E. Anglian Archaeol. 175, 92–99
- McKinley J. 1989, 'Cremations: Expectations, Methodologies, and Reality', in Roberts, C.A., Lee, F. and Bintliff, J. (eds) *Burial Archaeology: Current Research, Methods, and Developments*, Brit. Archaeol. Rep., Brit. Ser., 211, 65–76 (Oxford)
- McKinley, J.I. 2000, 'Phoenix rising: aspects of cremation in Roman Britain', in Pearce, J., Millett, M. and Struck, M., *Burial, Society and Context in the Roman World*. Oxford, Oxbow, 38–44
- McKinley, J. 2006, *Human remains from Section 1 of the Channel Tunnel Rail Link, Kent*, CTRL Scheme-wide Specialist Report Series. Available: <[http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-335-1/dissemination/pdf/PT2\\_Spec\\_Reps/05\\_Human\\_remains/HUM\\_schemewide\\_report/HUM\\_SSR\\_text.pdf](http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-335-1/dissemination/pdf/PT2_Spec_Reps/05_Human_remains/HUM_schemewide_report/HUM_SSR_text.pdf)> (Accessed 24 September 2017)
- Manning, W.H. 1985, *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum* (London)
- Medlycott, M. and Atkinson, M. 2012, 'Aspects of Roman Settlement in Essex', in Brown, N., Medlycott, M. and Bedwin, O. (eds), *The Archaeology of Essex: Proceedings of the Chelmsford Conference*. *Essex Archaeol. Hist.*, 4th Ser., 3, 74–96
- Mooney, D.E. this volume, 'Charcoal from Bronze Age cremation burials', in Heppell, E.A., 'Prehistoric and Roman landscape on the Tendring Plateau: Investigation at Hill Farm, Tendring', *Essex Archaeol. Hist*, 4th Ser., 7, 35–36
- Murphy, P. 1995, 'Botanical evidence', in Wymer, J.J. and Brown, N.R., *Excavations at North Shoebury: Settlement and Economy in South East Essex 1500B –AD1500*, E. Anglian Archaeol. 75, 146–151
- Needham, S. 1987, 'The Bronze Age', in Bird, J. and Bird, D.G., *The Archaeology of Surrey to 1540, 97–137* (Surrey Archaeological Society, Guildford)
- NIAB 2004, *Seed Identification Handbook: Agriculture, Horticulture and Weeds. 2nd ed.* (Cambridge NIAB)
- Parks, K. 2012, *Iron Age and Roman Arable Practice in the East of England*, (unpubl. PhD. thesis, Univ. of Leicester, UK). Available: <<http://hdl.handle.net/2381/27951>> (Accessed 24 September 2017)
- Philpott, R.A. 1991, *Burial practices in Roman Britain: a survey of grave treatment and furnishing A.D. 43–410* (Oxford, Tempus Reparatum)
- Schoch, W., Heller, I., Schweingruber, F.H. and Kienast, F. 2004, *Wood anatomy of central European Species*. Available: [www.woodanatomy.ch](http://www.woodanatomy.ch) (Accessed 24 September 2017)
- Schweingruber, F.H. 1990, *Microscopic Wood Anatomy*, 3rd edition (Birmensdorf, Swiss Federal Institute for Forest, Snow and Landscape Research)
- Stace, C. 1997, *New Flora of the British Isles* (Cambridge Univ. Press)
- Stead, I.M. and Rigby, V. 1986, *Baldock: the Excavation of a Roman and pre-Roman settlement, 1968–72* (Vol. 7) (London)
- Symonds, R.P. and Tomber, R.S. 1991, 'Late Roman London: an assessment of the ceramic evidence from the City of London', *Trans. London Middlesex Archaeol. Soc.* 42, 59–100
- Taylor, M. 1981, *Wood in Archaeology* (Aylesbury, Shire Publications)
- Thompson, G.B. 1999, 'The analysis of wood charcoals from selected pits and funerary contexts', in Barclay, A. and Halpin, C., *Excavations at Barrow Hills, Radley, Oxfordshire, Volume 1: the Neolithic and Bronze Age monument complex*, Thames Valley Landscapes, 11, 247–253 (Oxford, Oxford Archaeological Unit)
- Tomber, R. and Dore, J. 1998, *The national Roman pottery fabric reference collection*, MolAS Monograph 2 (London, Museum of London Archaeology Service)
- Wymer, J.J. and Brown, N.R. 1995, *Excavations at North Shoebury: settlement and economy in South-East Essex 1500BC–AD1500*. E. Anglian Archaeol. 175



# A Romano-British Ladder System at Asheldham Quarry, Essex

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Christina McClean

Illustrations by Thomas Light

*The Dengie Peninsula in Essex is defined by the Rivers Crouch and Blackwater. This predominantly agricultural area includes extensive evidence of Romano-British field systems and was central to the contemporary salt-making industry. An archaeological project at Asheldham Quarry, culminating in a rescue excavation, revealed a ladder system of ditched, rectilinear enclosures forming just part of a more extensive early post-Conquest landscape. The excavated features compare well with cropmark evidence while recovered environmental remains attest to a mixed agricultural economy including the bulk processing of cereals for export. The project's findings provide a useful tool for understanding the nature of Romano-British agriculture on the Dengie Peninsula, as well as possible trade links during the early years of the Roman occupation.*

## INTRODUCTION

The Romano-British rural landscape of central and southern England was typified by 'extensively and continuously bounded' systems of fields and enclosures (Taylor 2007, 113). This form of landscape organisation is ubiquitous throughout much of Essex (Medlycott and Atkinson 2012) and is nowhere better demonstrated than in the area surrounding the lower Blackwater Valley and Dengie Peninsula, where extensive cropmark/aerial photographic and excavation evidence has demonstrated the widespread, formal enclosure of agricultural land. This paper presents the results of a recent archaeological excavation at Asheldham Quarry which encountered a ladder system of ditched, rectilinear enclosures—part of a more extensive agricultural settlement—dating to the early post-Conquest era. In so doing, it references key research topics for the county and wider region: specifically, the need to 'ground-truth' aerial photographic evidence in order to refine the dating of field systems; the need to assess the extent to which field/enclosure size and form reflects their use; and the need to better understand the economic relationship(s) between rural and urban sites (Medlycott 2011, 47; Medlycott and Atkinson 2012, 94).

The Asheldham excavation was preceded by an aerial photographic survey, archaeological desk-based assessment and trial trench evaluation. Following the evaluation, the results of which indicated a significant multi-period site, unsupervised machining of topsoil and subsoil resulted in the damage and probable loss of archaeological features and finds. As such, the excavation of the site constituted a 'rescue' exercise. Nonetheless, the recovered data make an important contribution to our understanding of early Romano-British settlement on the Dengie Peninsula.

## THE SITE

The hamlet of Asheldham is made up of scattered farms and dwellings located approximately 26km south-east of Chelmsford, on the Dengie Peninsula (Fig. 1). The excavation site (Site Code: AMAQ14; NGR: TL 9768 0185) comprised an irregular plot of agricultural land (35.6ha) on a natural plateau (c.20m OD) overlooking Asheldham Brook and the River Crouch, respectively c.1.3km and 6.6km to the south. The Dengie is bordered by the Blackwater Estuary to the north.

Writing about the prehistoric perspective, Yates (2012, 31) notes that this landscape affords easy access to the coast and the county's interior via a 'myriad' of local waterways, while the area's gravel terraces, former coastal marshes and river margins offer good quality grazing. The site's solid geology comprises part of the London Clay formation overlain by sand and river terrace gravels. The local soils are the 'coarse and fine loamy permeable soils...' of the Hurst Association, and are suitable for the cultivation of cereals and horticultural crops (Soil Survey of England and Wales 1983, 20). This 'island' of easily tilled soil is in stark contrast to the former coastal marshes, to the east of the site, and intractable clay to the west (Fig. 1).

## THE DATING EVIDENCE by Andrew Peachey

The excavation, by Archaeological Solutions Ltd, encountered three distinct phases of past activity, dating to the Late Bronze Age/Early Iron Age (1300 to 400 BC), Romano-British (mid/late 1st to early 2nd century AD) and early modern/modern periods, while the earliest recovered material comprised a residual blade-like tertiary flint flake of Mesolithic or Neolithic character. Late Bronze Age/Early Iron Age activity was represented by a single ring-ditch and three dispersed pits. These features contained only sparse prehistoric pottery and were thought to possibly represent an element of extramural settlement on the fringes of the nearby Asheldham Camp hillfort (Mustchin *et al.* 2016a) (Fig. 2). Post-Roman features constituted a modern ditch—depicted as a trackway and/or field boundary on historical maps (pre-1970 AD)—and a single pit.

Pottery from the site (totalling 1,550 sherds (21,189g)) almost entirely comprised Early Roman form and fabric types (Table 1), potentially spanning the mid 1st to early 2nd centuries AD. The Early Roman pottery was primarily recovered from enclosure ditches, and although several concentrated groups could be identified, the fabric and form types were relatively consistent. These were focussed on barrel-shaped and cordoned jars, largely in grog-tempered and Romanising fabrics, with sand or shell-tempered fabrics having a limited impact (see Catalogue of Fabrics). The jars frequently exhibited patterns of soot consistent with

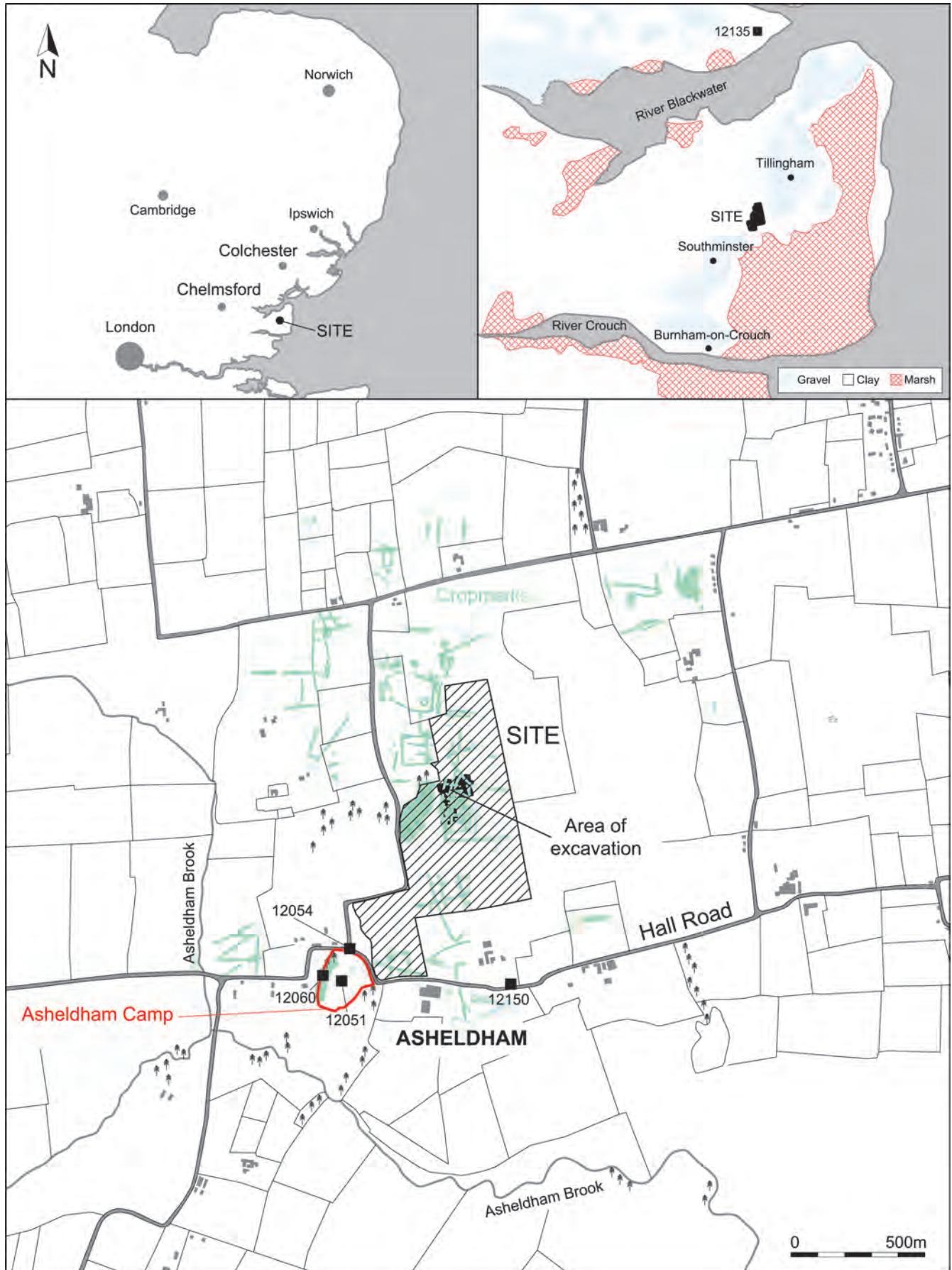


FIGURE 1: Site location

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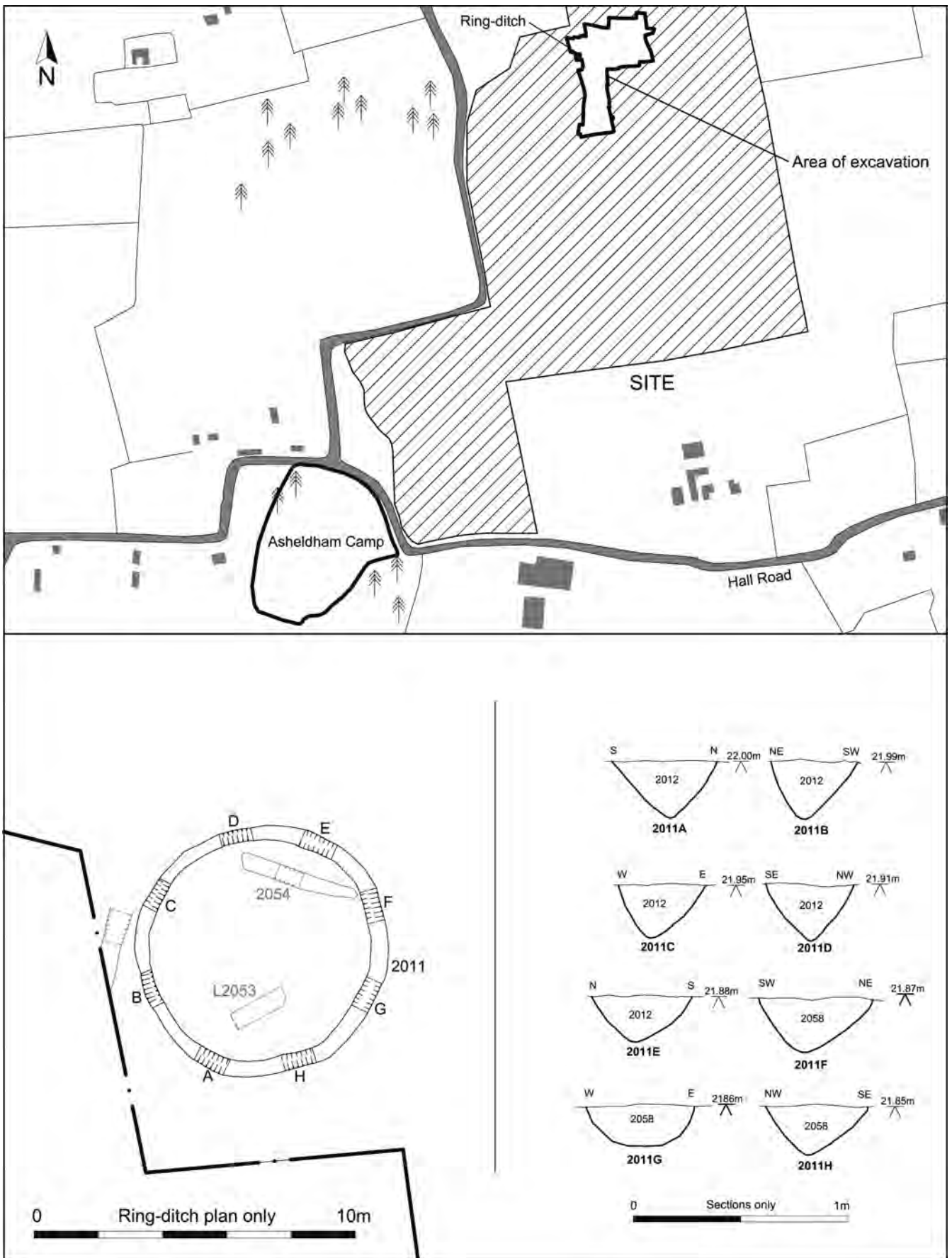


FIGURE 2: The Late Bronze Age/Early Iron Age ring-ditch  
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their use as cooking pots, although several larger jars and storage jars were also present. Rare components such as grog-tempered and reduced fine ware beakers and a strainer remain consistent with low status domestic activity within the immediate vicinity of the Romano-British enclosures. The presence of rare imports including samian ware, Gaulish amphora, Colchester mortaria and Black-Burnished Ware 2 suggests an economy with limited access to the supply networks of nearby Chelmsford and Heybridge. Equally, it appears to indicate a consumption pattern slightly lagging behind that which developed at these urban centres, although the coarse wares compare closely; potentially indicative of the very limited impact of Romanisation, including material goods and cuisine on a settlement in the decades following the Roman Conquest, possibly extending into the early 2nd century AD. A single small Late Roman (4th-century AD) pottery group was contained in one ditch, including the sole vessels recorded in Trier samian ware, Hadham reduced ware 1 and Oxfordshire red-slipped ware, while an isolated Late Roman sandy grey ware dish from another ditch may have been contemporary. Based on the stratigraphic sequence the 4th-century AD group is likely to have been intrusive. Full

reporting of the Roman pottery, including raw data and analyses is presented elsewhere (Peachey 2016).

**Catalogue of Fabrics**

*Early Roman*

LGF SA	La Graufesenque samian ware (Tomber and Dore 1998, 28). <i>Chelmsford Fabric 60/Heybridge Fabric SGLG</i>
LEZ SA1	Lezoux samian ware 1; 1st-century AD micaceous (Tomber and Dore 1998, 31). <i>Chelmsford Fabric 60/Heybridge Fabric CGLZ</i>
LEZ SA2	Lezoux samian ware 2 (Tomber and Dore 1998, 32). <i>Chelmsford Fabric 60/Heybridge Fabric CGLZ</i>
NOG WH3	North Gaulish (Gallo-Belgic Sandy) white ware 3 (Tomber and Dore 1998, 24). <i>Heybridge Fabric NWGFS</i>
GAL AM1	Gaulish amphorae 1: Gauloise 4 only (Williams 2005; Tomber and Dore 1998, 93), produced in numerous kilns in Gallia Narbonensis. <i>Chelmsford Fabric 56/Heybridge Fabric AGAUL</i>
UPC FR	Upchurch fine reduced ware (Tomber and Dore 1998, 168; Monaghan 1987, 252: fabric N1). <i>Chelmsford Fabric 32/Heybridge fabric LOND</i>
GRF	Fine grey ware. Mid grey with slightly contrasting sandwich core, Inclusions comprise common fine quartz (<0.1mm) and sparse pale grey clay pellets. Possible a product of the north Kent kilns. <i>Chelmsford Fabric 32/Heybridge fabric NKG</i>
GRFG	Fine grog-tempered ware. Orange-red surfaces contrasting with a mid-grey core. Inclusions comprise common fine quartz (<0.1mm), sparse dark grey grog (0.1–0.5mm) and sparse fine mica. An imitation of Gallo-Belgic Terra Rubra. <i>Heybridge fabric GROGRF</i>
MICW	Middle-Late Iron Age grass-tempered coarse ware (hand-made, bonfire-fired). Inclusions comprise common chopped organic temper (linear, 2–8mm) with sparse quartz (<0.5mm). <i>Heybridge Fabric MICW</i>
SOB GT	Southern British ('Belgic') grog-tempered ware (Tomber and Dore 1998, 214; Thompson 1982). <i>Chelmsford Fabric 53/Heybridge Fabric GROGC</i>
BSW	Black-surfaced/Romanizing grey wares. The coarseness and frequency of quartz and grog in this fabric varies, with some sherds close to SOB GT, and some to GRS1. Several local sources may be represented. <i>Chelmsford Fabric 45/Heybridge Fabric BSW</i>
GRS	Sandy grey wares, probably from numerous local sources including Chelmsford and Heybridge. <i>Chelmsford Fabric 47/Heybridge Fabric GRS</i>
SEX SH	South Essex shell-tempered ware. <i>Chelmsford Fabric 50/Heybridge Fabric ESH</i>
BB2	Black-Burnished Ware 2, probably including products of kilns at Colchester and Mucking (Tomber and Dore 1998, 135). <i>Chelmsford Fabric 41/Heybridge Fabric BB2</i>
COL WH (M)	Colchester white ware mortaria (Tomber and Dore 1998, 133). <i>Chelmsford Fabric 27/Heybridge Fabric COLBM</i>

*Late Roman*

TRI SA	Trier samian ware (Tomber and Dore 1998, 41). <i>Chelmsford Fabric 60/Heybridge Fabric EGTR</i>
HAD RE1	Hadham reduced ware 1 (Tomber and Dore 1998, 152). <i>Chelmsford Fabric 36/Heybridge Fabric HAR</i>
OXF RS (M)	Oxfordshire red-slipped ware mortaria (Tomber and Dore 1998, 176). <i>Chelmsford Fabric 3/Heybridge Fabric OXRCM</i>

Fabric	Sherd Count	Weight (g)	R.EVE
<i>Early Roman</i>			
LGF SA	10	10	-
LEZ SA1	1	10	-
LEZ SA2	12	155	0.05
NOG WH3	6	44	-
GAL AM1	1	80	0.35
UPC FR	1	4	-
GRF	1	3	-
GRFG	2	9	0.05
MICW	18	297	-
SOB GT	636	11139	4.07
BSW	423	4467	1.80
GRS	235	2962	1.55
SEX SH	175	1624	0.45
BB2	5	90	0.15
COL WH (M)	1	43	0.05
<i>Late Roman</i>			
TRI SA	1	26	-
HAD RE1	1	46	0.10
OXF RS (M)	1	14	-
Total	1508	20880	8.62

TABLE 1: Quantification of Roman pottery by fabric type (see catalogue of fabrics) R.EVE = rim estimated vessel equivalent

**ARCHAEOLOGICAL BACKGROUND**

Romano-British activity in the immediate vicinity of the site is attested by finds of pottery (Essex Historic Environment Record (EHER) 12054) and records of possible Belgic or Roman cremation burials unearthed in the 1930's. These were found within the area of Asheldham Camp; a Late Bronze Age to Early Iron Age univallate hillfort located to the south-west

of the site (EHER 12051; Figs 1–2). Further Roman material, apparently deriving from the hillfort, was purchased by Colchester Museum (EHER 12060).

Roman influence is also evident at the parish church of St Lawrence where Roman brick, tile and *opus signinum* form part of the building's superstructure (EHER 12150). Archaeological excavations outside the church also revealed a regularly re-cut Romano-British ditch, partially underlying the church's Norman phase. This ditch ran parallel to adjacent Hall Road (Fig. 1), suggesting that the alignment of the latter (and possibly the gridded system across the Dengie) was laid out during the Romano-British period (EHER 12154).

The wider area encompasses former coastal marshes, several kilometres to the east of the site (Fig. 1). This low-lying landscape was synonymous with salt-making during the Roman occupation and salterns/red hills are well documented (*e.g.* Gurney 1980). Indeed, this industry is recorded at numerous sites along the Essex coast (Murphy *et al.* 2012, 146). The marshes were also important for sheep grazing during later periods, and it is likely that they were similarly exploited by the Romano-British population. At Domesday, the carrying capacity of the Essex marshes was in excess of 18,000 sheep (Grieve 1959, 5).

Further afield are local market centres including the Romano-British settlement at Heybridge, some 13.5km to the north-west, while the urban settlements of *Camulodunum* (Colchester), the onetime capital of Roman Britain, and *Caesaromagus* (Chelmsford) are 24km and 26km to the north and north-west, respectively.

## THE ROMANO-BRITISH SITE

### Summary

The excavated Romano-British site at Asheldham was defined by a complex system of rectilinear, ditched enclosures, numbering at least fifteen in total (Figs 3–4). The enclosure ditches mostly ran approximately north to south or east to west and displayed a high incidence of intercutting. There was some evidence to suggest the ongoing maintenance (re-cutting) of individual boundaries. Most of the enclosures included evidence of internal activity—although quite limited—while Enclosure 14 contained a possible earth-fast structure (Figs 3–5). Other Romano-British features included pits, postholes and gullies. A cluster of pits was present in the far north-east corner of the excavation, set apart from the enclosures, although their primary function remains unclear; almost all of the discrete features lacked notable quantities of pottery or other cultural material. One exception was a significant assemblage of carbonised plant remains from Pit F2101 (L2102), dominated by fully cleaned barley grains (see below).

Cropmark evidence clearly shows the excavated site as forming just part of a larger enclosed Romano-British settlement, including a large square field or enclosure to the north-west (Fig. 4). Although structural evidence was limited within the excavation, it is possible that the core of the settlement, probably a house or farmstead, was located within enclosures immediately to the east (Medlycott *pers. comm.*). The recovery of domestic cooking pots from the site (see above) strongly suggests the presence of a habitation in the very near vicinity.

## The Enclosures

The main 'trunk' of the enclosures is thought to have represented a 'ladder' system; a linear system of settlement and land enclosure arising during the Iron Age, but with regional Romano-British parallels at sites including Childerley Gate, Cambridgeshire (Abrams and Ingham 2008, 52ff) and Beck Row, Suffolk (Mustchin 2014). The enclosure ditches displayed a very close correlation to cropmarks recorded on aerial photographs of the site (Air Photo Services 2013) (Fig. 4), strongly suggesting that the excavation encompassed just part of a larger rural settlement and that further cropmarks in the surrounding area may well be of a similar, early post-Conquest date. Activity within and around the enclosures was limited to pit digging (including a single intercutting pit cluster in the north-east corner of the excavation), while a small number of postholes were also encountered. A simple earth-fast structure, possibly an agricultural store, was present within Enclosure 14 (see below).

### The Ladder System

The ladder system was formed by Enclosures 4–10, running approximately north to south down the central axis of the site (Fig. 3). Although additional enclosures flanked this system to the east and west, these appeared either less well defined (*e.g.* Enclosure 12) and/or larger than the enclosures of the ladder (*e.g.* Enclosure 2). The internal area of the ladder enclosures ranged between 110m<sup>2</sup> and at least 470m<sup>2</sup> with a mean of just less than 300m<sup>2</sup> (Table 2). This range was not dissimilar to a mid 3rd to 4th-century AD ladder system excavated at Beck Row, Suffolk, the individual enclosures of which ranged in size between approximately 200m<sup>2</sup> and 400m<sup>2</sup>, although they were more elongated in plan than the Asheldham examples (Mustchin 2014). Elongated enclosures were also a characteristic of an 'early to middle Roman' ladder system at Childerley Gate in Cambridgeshire (Abrams and Ingham 2008, 52–3, fig. 3.13). The latter were also more 'open' than the current examples, exhibiting clearly defined, internal access points between individual enclosures (Abrams and Ingham 2008). A second Cambridgeshire ladder system at Langdale Hale, Colne Fen, Earith also displayed clear access points between individual 'compounds' and the surrounding landscape (Evans *et al.* 2013, 44–7, fig. 2.14). However, like the Asheldham ladder, many of the Langdale Hale compounds were more squared in plan (Evans *et al.* 2013, fig. 2.14), with their ditches also yielding Romanising/Early Roman pottery groups (Evans *et al.* 2013, 165).

The uniformity of the Asheldham enclosures, all of which conformed to a clearly gridded layout, strongly suggests a degree of formalised pre-planning and the use of Roman surveying methodologies; either directly controlled by Roman landowners or being adopted by the wider population (*cf.* Medlycott and Atkinson 2012, 91). Although the Asheldham enclosures did not appear to obviously conform to multiples of an identifiable measurement system—as has been argued for Roman enclosures elsewhere in Essex (*e.g.* Great Holts Farm (Germany 2003; after Medlycott and Atkinson 2012, 91))—the 'consistent use of right-angles' strongly implies the application of Roman surveying techniques (*cf.* Medlycott and Atkinson 2012, 91). Furthermore, the layout of the enclosure ditches might reflect a deliberate response to the local topography. Many of the encountered ditches ran approximately north

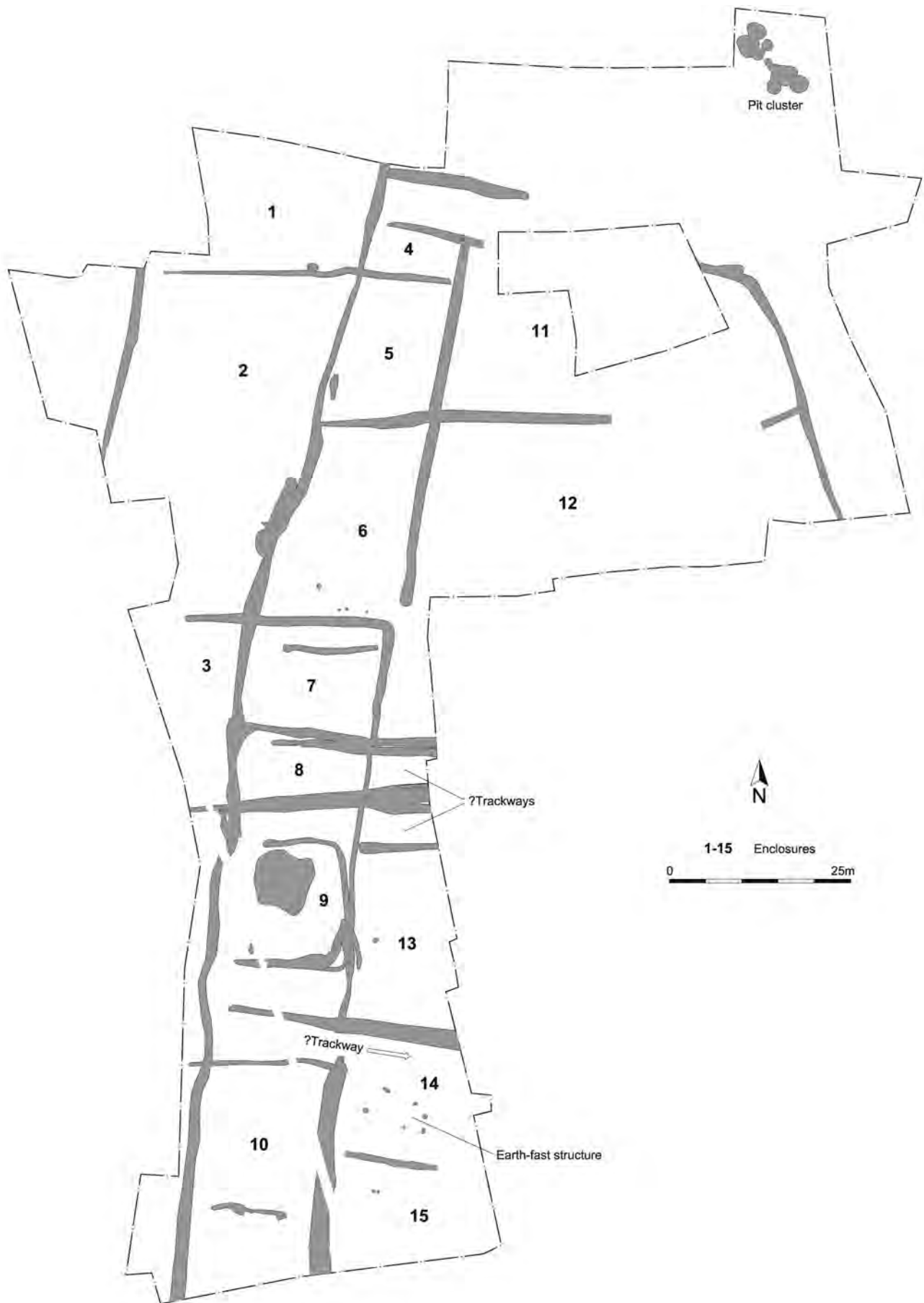


FIGURE 3: The Romano-British site



FIGURE 4: The Romano-British site and surrounding cropmarks

to south, down the slope of the site and towards the line of Asheldham Brook, some 1.3km distant (Figs. 1 and 3). As such, it could be argued that some provision for drainage was being made in the orientation of enclosure ditches. Possible arable weeds from environmental bulk samples include sedge (*Carex* sp.), which suggests the cultivation of marginal, waterlogged land (see below).

### The Earth-Fast Structure

Structural evidence was limited to a modest earth-fast structure within the confines of Enclosure 14 (Figs 3–5). The structure's postholes, numbering just six and enclosing an area of some 32m<sup>2</sup>, were devoid of pottery and were only tentatively assigned a 1st/2nd-century date. Two fragments of likely intrusive (modern) sheep/goat bone were present within one posthole (Table 3). Despite this dearth of evidence, similarly basic structural forms have been identified on Romano-British sites across the region, including West Stow and Snape in Suffolk, Childerley Gate in Cambridgeshire, Kilverstone in Norfolk

and Tollesbury in Essex. Parallels also exist from Great Holts Farm in Essex where two sub-rectangular post-built buildings formed part of the middle/late Roman landscape. Like the Asheldham structure, Buildings 294 and 417 at Great Holts were principally represented by lines of postholes, although the latter were more substantial and the buildings themselves were larger (each measuring approximately 65m<sup>2</sup>) (Murphy 2003, 48ff, figs 41 and 44). Building 294 at Great Holts included large volumes of carbonised plant remains and was identifiable as a granary.

Earth-fast buildings at Snape and West Stow were similar in form to the Asheldham structure, but most probably had industrial functions. The two buildings at West Stow, although heavily truncated by later features, were surrounded by contemporary Romano-British pottery kilns and may have been used as drying sheds (West 1990, 40). A similar function is possible for two structures at Snape which were also found close to the remains of a contemporary pottery kiln (Mustchin and Peachey forthcoming). Interpretations of three early

Enclosure Number	Approximate Internal Area	
	m <sup>2</sup>	ha
1	*450	*0.05
2	*1315	*0.13
3	*315	*0.03
4	150	0.02
5	240	0.02
6	430	0.04
7	250	0.03
8	110	0.01
9	415	0.04
10	*470	*0.05
11	*970	*0.10
12	*1200	*0.12
13	*290	*0.03
14	*255	*0.03
15	*250	*0.03
Mean (all enclosures)	*474	*0.05
Mean (ladder enclosures)	*295	*0.03

TABLE 2: The enclosures

Shaded cells = ladder enclosures; \* = minimum possible area

Romano-British structures at Kilverstone, Norfolk ranged from granaries to Romano-Celtic temples (Garrow *et al.* 2006, 163), although an agricultural function may be more probable based on the general character of the encountered archaeology. A very simple earth-fast building—represented by eight postholes and measuring less than 40m<sup>2</sup>—was also excavated at Tollesbury in Essex, less than 9km north of the current site (Holloway 2013, 2, 8 and fig. 2). Although yielding a modest assemblage of finds including pottery, lava quern and briquetage, this building was interpreted as possible animal housing attached to a local villa estate (Holloway 2013). Based on the very limited evidence from Asheldham, an agricultural function for the encountered earth-fast structure, possibly for storage, shelter or processing, is suggested.

## THE ECONOMIC AND ENVIRONMENTAL EVIDENCE

### Animal Bone by Julia E.M. Cussans

Romano-British features yielded a small and generally poorly preserved assemblage of animal bone. In the main only teeth or tooth enamel fragments were present with very little postcranial material preserved. Element fragmentation of both teeth and surviving long bones was high and identifiable elements were scarce.

### Species present and quantification

Very few elements were identified to specific taxa and only two taxa were identified overall. These were cattle (*Bos taurus*) and sheep/goat (*Ovis aries/Capra hircus*; Table 3). Cattle were the most abundant by far and are discussed in more detail below. The sheep/goat bones from Posthole F2155 were a piece of proximal metacarpal and a distal radius. Although the metacarpal was too fragmented to be measured, the distal breadth (Bd) of the radius (some 36.9mm) was of a size

far exceeding Roman material recorded by the University of Southampton (2003) (Bd measurement followed von den Driesch (1976)). Both bones were also better preserved than the rest of the assemblage, strongly suggesting that they comprised intrusive, modern material.

Cattle were the most abundant of the identified taxa and were entirely represented by teeth and tooth fragments. One tooth was an ageable lower 3rd molar (LM3). This tooth was assessed at Grant's (1982) wear stage c and following this at Halstead's (1985) age stage E with a suggested age of 30–36 months; this seems likely to have been an animal killed for meat. No other age data were available.

All other bone fragments present could only be recorded as large (cattle or horse-sized) mammal. These were mostly tooth enamel fragments, although Pit F2183 contained several long bone fragments; these were very degraded, fragmented and chalky in texture. No butchery marks or pathologies were noted on any of the bone fragments.

### Conclusions

Only cattle were conclusively present. The only sheep/goat bones are thought to be intrusive based on their large size and relatively good state of preservation. The bone sample presented here is not in any way representative of the original livestock population that would have been present at, or supplied to the site. The assemblage is heavily biased due to poor preservation conditions. Overall, only tooth enamel survived and the teeth were highly fragmented, favouring the survival and recognition of larger species.

Aside from cattle other taxa that were likely to have been present at a Romano-British rural site are sheep/goat, pig (*Sus scrofa*), horse (*Equus caballus*) and dog (*Canis familiaris*; Johnstone and Albarella 2002). Some wild mammals, such as red and roe deer (*Cervus elaphus*; *Capreolus capreolus*), and bird species including domestic fowl (*Gallus domesticus*) may also have been exploited (Johnstone and Albarella 2002).

## Environmental Remains by John R. Summers

### Summary

Fifteen bulk soil samples for environmental archaeological analysis were present from Romano-British features; raw data are presented elsewhere (Summers 2016). Carbonised macrofossils, predominantly in the form of charred cereal grains, were recorded in twelve samples, reflecting a high frequency of deposition. Wheat (*Triticum* sp.) was the most commonly recorded cereal in c.73% of deposits. Most identifiable specimens were glume wheat (*T. dicoccum/spelta*), with spelt wheat (*T. spelta*) glume bases identified in c.27% of deposits. Spelt wheat was the primary winter cereal across much of Roman Britain and was probably also an economic staple in this case.

Hulled barley, including a small number of asymmetric grains characteristic of hulled, six-row barley (*Hordeum vulgare* var. *vulgare*), were recorded in c.47% of samples, while oat (*Avena* sp.) was present in c.33%. Of note was a rich deposit of barley grains from Pit F2101 (see below). Remains of chaff, in the form of glume bases and wheat rachis internodes were also well represented, being recorded in 40% of deposits. This indicates the widespread presence of crop processing by-products in the carbonised assemblage.

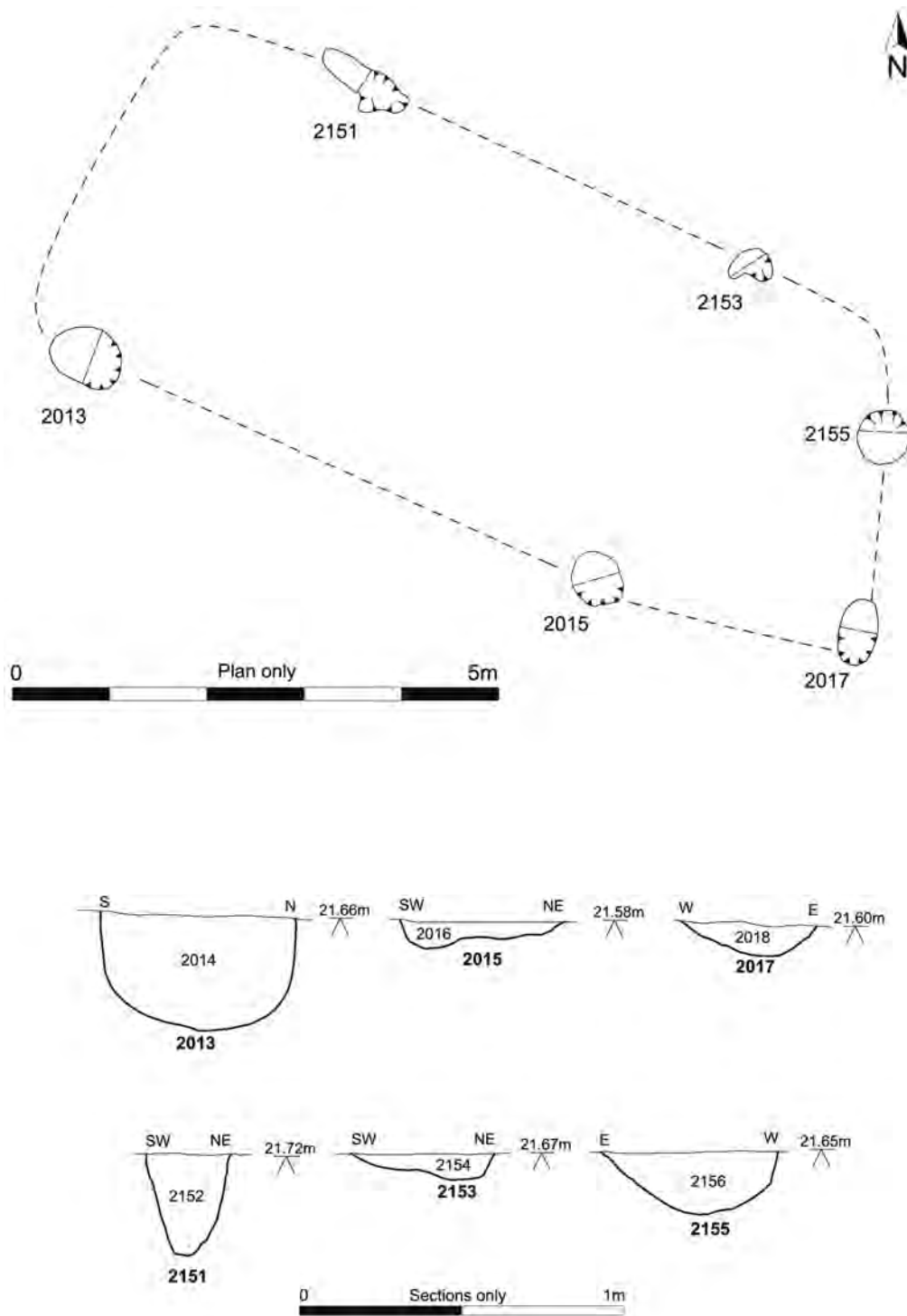


FIGURE 5: The earth-fast structure

Feature	Context	Cattle	Sheep/Goat	Large Mammal	Total
2005	2006	8		28	36
2007	2010B	8		17	25
2075	2076	3		5	8
2155	2156		2		2
2183	2185	10		40	50
2188	2189			1	1
	<b>Total</b>	<b>29</b>	<b>2</b>	<b>91</b>	<b>122</b>

TABLE 3: Quantification of animal bones and teeth

A single pea/bean (Fabaceae) was recorded from Ditch F2161. Since processing of pulses rarely involves contact with fire, they are often poorly represented in archaeobotanical assemblages. Despite the limited number of specimens, it is possible that pulses formed part of the arable economy, adding protein to the diet and potentially acting as nitrogen fixers in a crop rotation pattern. Other non-cereal remains included a range of likely arable weeds such as stinking chamomile (*Anthemis cotula*), which indicate the cultivation of heavy clay or loam soils in the Asheldham area.

In general, the archaeobotanical assemblage is likely to represent the mixed remains of various activities involving the use and processing of cereals, becoming incorporated into feature fills with other refuse material and hearth rake-out. One exception to this is the material from Pit F2101.

#### *Pit F2101*

Of particular note was a rich deposit of carbonised remains from Pit F2101 (Fill L2102). The sample was dominated by barley grains, which constituted 94% of the identified cereal grains. Where identifiable, the grains were hulled, with a small number of asymmetric grains also present. Incidences of germination were low (1%) and most likely represent small-scale spoilage rather than deliberate malting activity. No remains of barley chaff were present and only a single tail grain was noted, indicating a fully cleaned product.

Wheat grains were present but were outnumbered by chaff elements (glume bases). A ratio of glume wheat grains, corrected to include the appropriate proportion of indeterminate specimens, to glume bases was calculated as 0.22:1. This demonstrates the significant dominance of chaff elements and the likely presence of spelt wheat de-husking by-products. Spelt wheat was the primary economic staple in Roman Britain and there is evidence of bulk processing from numerous sites, including Heybridge (Monckton 2015), Great Holts Farm (Murphy 2003) and Stansted (Carruthers 2008). The resulting by-products were abundant and widespread on agricultural sites and were frequently used as fuel in a variety of kiln and oven type features (e.g. Carruthers 2008, 34.9–10; Fryer 2004; Nicholson and Summers 2014; Summers 2015; van der Veen 1989).

A single free-threshing type wheat grain may indicate the presence of this crop, although the absence of associated chaff elements makes this difficult to confirm. A small number of oat grains were identified but the absence of diagnostic chaff elements meant that it was not possible to distinguish between wild and domesticated species. Within this sample, it is likely that oats were present as a weed amongst the other cereals, although this does not rule out contemporary oat cultivation. A range of non-cereal taxa were also recovered from F2101, the majority of which are likely to have been present as arable weeds. These included goosefoot (*Chenopodium* sp.), common chickweed (*Stellaria media*), knotgrass (*Polygonum aviculare*), black bindweed (*Fallopia convolvulus*), dock (*Rumex* sp.), legumes (Fabaceae), sedge (*Carex* sp.), brome grass (*Bromus* sp.) and other wild grasses (Poaceae). These provide little specific information regarding soil and husbandry conditions, although sedge is characteristic of poorer, wetter soils and may reflect waterlogging in more marginal areas of cultivated land.

Charcoal remains were also present, with vessel patterns indicating a mixed deposit of oak (*Quercus* sp.) and diffuse

porous wood types. A single Rosaceae-type thorn was also present, which may have been present on fuel wood.

The character of the remains from Pit L2101 indicates a mixed deposit of fuel and product from a corn drying kiln. The product being processed was barley, while spelt wheat de-husking waste and wood are likely to have represented fuel. Although no kiln was encountered by the excavation, it is unlikely to have been a significant distance from Pit F2101.

#### *Conclusions*

The archaeobotanical remains are representative of a Romano-British rural site, with strong evidence for the cultivation and processing of cereals. The barley remains and associated wheat fine sieving by-products from Pit F2101 are indicative of the bulk processing of both barley and spelt wheat crops at the site. Both may have been prepared for export, perhaps on a relatively local scale, although access to wider trade networks via coastal and riverine trade is also possible. Spelt wheat was generally the most common crop for bulk processing and export but barley was also significant, being important for fodder, as well as human consumption.

#### **Triangular Loomweights** by Andrew Peachey

The project recovered a total of ninety-three fragments (5100g) of fired clay triangular loomweights. The weights, which include a single substantially complete example, were manufactured in an organic-tempered fabric that appears to have been sun-dried or baked at a low temperature. Triangular loomweights emerge in the Mid/Late Iron Age and continue to be utilised throughout the Roman occupation, consistent with the mid 1st to early 2nd-century AD pottery from the site, and suggestive of low to moderate status domestic industry. It has been suggested that such weights may have functioned as thatch weights, but the widely accepted interpretation is that they were loomweights, used on a vertical two-beam loom; a wide variety of size and fabric types have been recorded across Essex (Major 1982, 111). Settlement sites including triangular loomweights include Elms Farm in Heybridge (Tyrrell 2015).

#### **DISCUSSION**

The encountered Romano-British archaeology was dominated by a complex system of rectilinear, ditched enclosures, the main trunk of which formed a ladder system (Fig. 3). Ladder complexes including settlements and field systems arose during the Iron Age and are well documented across England (e.g. Derych 2012), with various examples undergoing further additions/developments during the Roman occupation (Derych 2012, 36). However, the Asheldham system, like those reported from Beck Row, Suffolk (Mustchin 2014) and Childerley Gate, Cambridgeshire (Abrams and Ingham 2008) appears to have been a post-Conquest development; the Childerley Gate and Beck Row enclosures date from the 2nd to 3rd centuries AD and mid 3rd to early 4th centuries AD, respectively. While the current system was notably earlier, yielding pottery of predominantly mid/late 1st to early 2nd-century AD date, there was no evidence to suggest the construction of this system during the pre-Roman Iron Age. The enclosures were indirectly preceded by minimal Late Bronze Age to Early Iron Age activity, possibly associated with the neighbouring Asheldham Camp hillfort. Ladder-type Romano-British enclosures are, however, documented along roads and other routes, e.g. adjacent



to Ermine Street at Stilton, Cambridgeshire (*cf.* Wessex Archaeology 2006, fig. 2), which might suggest that a minor road or other route existed in the area of Asheldham Quarry. The alignment of possible trackways at the site (Fig. 3) might place this road to the east of the excavated enclosures, close to the postulated 'core' of settlement.

The site's Roman economy appears overwhelmingly agricultural, with environmental sampling confirming the growing and processing of cereals. The archaeobotanical assemblage was dominated by wheat, predominantly glume wheat, while the bulk drying of grains including barley was attested by characteristic waste from Pit F2101. Although no corn drying kiln was identified within the excavation area, it is unlikely to have been located far from this pit based on the density of recovered material. The nature of the assemblage from F2101 suggests the production of a fully cleaned product for market, while interchange between the site and the local market economy is also attested by the limited occurrence of imported pottery including Gaulish amphora and Colchester mortaria. Overall, however, the finds assemblage attests to a rural/peripheral agricultural site subject to only very limited levels of Romanisation.

The animal bone evidence, although poor, suggests the rearing of cattle in keeping with other nearby sites including Chigborough in the lower Blackwater Valley, where stock rearing was indicated by the co-occurrence of enclosures and wells/waterholes (Wallis and Waughman 1998). However, the bone assemblage from Asheldham is not fully representative and the site was no doubt part of a more diverse pastoral regime with good access to local grazing (*cf.* Yates 2012, 31). The former coastal marshes of the Dengie were heavily grazed during the medieval period (Grieve 1959) and it seems inconceivable that such a valuable landscape resource would not have been similarly exploited by the Romano-British population. Furthermore, triangular loomweights from the site attest to weaving and a greater contribution of sheep to the local economy than suggested by the recovered animal bone. No briquetage from the local salt-making industry was encountered, possibly reflecting the site's more central position on the Dengie, raised above the former coastal marshes (Fig. 1).

Mixed agricultural regimes were also associated with ladder systems at Beck Row, Childerley Gate and Langdale Hale. Evidence from Childerley Gate indicated a predominance of cattle in the recovered archaeozoological assemblage alluding, at least superficially, to animal husbandry either at or near to the site. Secondary evidence also existed for the breeding of horses (Abrams and Ingham 2008, 61). The charred plant macrofossils from Childerley Gate did not clearly indicate crop husbandry in association with the ladder system although neither was this entirely ruled out (Abrams and Ingham 2008, 63). A predominance of cattle was also recorded at Beck Row, with lesser numbers of sheep/goat and pig (Curl and Cussans 2014), while environmental sampling revealed an agrarian regime based on the cultivation of spelt wheat and hulled six-row barley, the relative importance of which did not dramatically fluctuate over time (Summers 2014). The 'domestic "dryland" economy' of the Early Roman ladder system at Langdale Hale was also dominated by cattle with lesser numbers of sheep and pig, while horse remains were present in higher than expected quantities (Evans *et al.*

2013, 174). The large-scale production and processing of grain was also noted, strongly suggesting that Langdale Hale was a 'producer site' (Evans *et al.* 2013).

Like the Asheldham enclosures, the ladder systems at Beck Row and Childerley Gate formed parts of more extensive agricultural landscapes (Abrams and Ingham 2008, 52ff; Mustchin 2014), while the mid 1st to early 2nd-century AD system at Langdale Hale evolved to become a more complex collection of compounds and paddocks, enduring into the 4th century AD (Evans *et al.* 2013, 165–7, fig. 2.72). Such landscapes are typical of the 'extensively and continuously bounded [Romano-British] landscapes' recorded across the Midlands and southern England (Taylor 2007, 113).

The small number of features within the Asheldham enclosures and the limited quantity of material from ditch fills makes it difficult to effectively assess any relationship(s) between enclosure size/layout and function. However, the generally small size of the ladder enclosures might indicate that they functioned as part of an 'infield' regime, close to a farmstead or other focus of activity. Pottery from the site includes a strong domestic component, while corn drying waste from Pit F2101 suggests that crop processing and possibly storage occurred in the near vicinity. Similar infield activity dating from the late 1st century AD was recently identified at Woodditton in Cambridgeshire (Mustchin *et al.* 2016b, 32). The site at Woodditton included rectilinear enclosures and aisled buildings, forming part of a mixed agricultural economy, based on the raising of cattle (with lesser numbers of sheep/goat and pig) and the production of spelt wheat surpluses (Mustchin *et al.* 2016b). This is reminiscent of a similar economic pattern at Langdale Hale (Evans *et al.* 2013, 174). Based on the cropmark evidence, the Asheldham site appears to form approximately one third of a complex, early Romano-British rural settlement. Domestic and other structures associated with this settlement are thought to exist to the immediate east of the excavated area.

## CONCLUSIONS

The findings of this project add significantly to our current understanding of the Romano-British period on the Dengie Peninsula. The site was defined by a complex series of rectilinear, ditched enclosures—thought to include a ladder system—which appear to have extended further into the surrounding landscape, based on cropmark evidence. The layout of the enclosures closely matched cropmarks shown on aerial photographs of the site. This correlation, coupled with the date of the enclosures offers an insight into the early post-Conquest settlement and organisation of the peninsula, and provides a useful tool with which to investigate the date and character of the more extensive local cropmark evidence. The encountered archaeology significantly pre-dates some other elements of the Romano-British Dengie, *e.g.* *Othona* Roman Fort, a Saxon Shore fort dating to the latter part of the Roman occupation (Johnson 1976, 66–7).

The site's economy appears to have been based on a mixed agricultural regime, although the importance of animal husbandry is difficult to quantify with any precision; however, the local landscape affords excellent grazing. In contrast, the possible bulk processing of cereals for local or wider export is clearly suggested, with obvious markets including the nearby settlement at Heybridge to the north of the River Blackwater.

Limited trade and exchange is also evidenced by the recovered Roman pottery assemblage, which includes a modest array of imported fine wares, while the overall pattern of pottery supply and consumption at the site is typical of other rural sites in Essex, somewhat lagging behind the larger urban centres and potentially indicating a low level of local Romanisation. However, the site's position on the Dengie, sandwiched by the Rivers Blackwater and Crouch, suggests good access to riverine and coastal trade networks.

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## BIBLIOGRAPHY

- Air Photo Services 2013, *Asbeldham Quarry, Asbeldham, Essex: An Aerial Photographic Assessment*, unpubl. Air Photo Services report 2013/9
- Abrams, J. and Ingham, D. 2008, *Farming on the Edge: archaeological evidence from the clay uplands west of Cambridge*, E. Anglian Archaeol. 123
- Carruthers, W.J. 2008, 'Charred, mineralized and waterlogged plant remains', in Framework Archaeology, *From Hunter-Gatherers to Huntsmen: A History of the Stansted Landscape* (Salisbury, Wessex Archaeol.), Chapter 34 on CD
- Curl, J. and Cussans, J.E.M. 2014, 'The Animal Bone', in Mustchin, A.R.R., *Former Smoke House Inn, Beck Row, Mildenhall, Suffolk. Research Archive Report; Volume 1 – Report*, Archaeological Solutions Ltd Report 4521 (Bury St Edmunds), 243–26
- Derych, A. 2012, 'The Roman Paradox: Linear Enclosure Complexes in the Yorkshire Wolds', *Archaeological Forum Journal: CBA Yorkshire*, 33–42
- Evans, C. with Appleby, G., Lucy, S. and Regan, R. 2013, *Process and History: Romano-British communities at Colne Fen, Earith*, Cambridge Archaeological Unit Landscape and Archives: The Archaeology of the Lower Ouse Valley, Volume 2 (Cambridge)
- Fryer, V. 2004, 'Charred macrofossils and other remains', in Bales, E., *A Roman Maltings at Beck Row, Mildenhall, Suffolk*, E. Anglian Archaeol. Occasional Paper 20 (Bury St Edmunds), 49–54
- Garrow, D., Lucy, S. and Gibson, D. 2006, *Excavations at Kilverstone, Norfolk: an episodic landscape history*, E. Anglian Archaeol. 113
- Germany, M. 2003, *Excavations at Great Holts Farm, Boreham, Essex, 1992–4*, E. Anglian Archaeol. 105
- Grant, A. 1982, 'The use of toothwear as a guide to the age of domestic ungulates', in Wilson, B., Grigson, C. and Payne, S. (eds), *Ageing and Sexing Animal Bones from Archaeological Sites*, Brit. Archaeol. Rep., Brit. Ser., 109 (Oxford), 91–108
- Grieve, H.E.P. 1959, *The Great Tide: the story of the 1953 flood disaster in Essex* (Colchester)
- Gurney, D. 1980, 'Red hills of the Dengie Peninsula', *Essex Archaeol. Hist.*, 3rd Ser., 12, 107–9
- Halstead, P. 1985, 'A study of mandibular teeth from Romano-British contexts at Maxey', in Pryor, F., French, C., Crowther, D., Gurney, D., Simpson, G. and Taylor, M. (eds), *The Fenland Project: Archaeology and Environment in the Lower Welland Valley, Volume 1*, E. Anglian Archaeol. 27, 219–24
- Holloway, B. 2013, *Archaeological Evaluation and Excavation on Land between 20–24 North Road, Tollesbury, Essex; May–June 2013*, unpubl. Colchester Archaeological Trust report 710
- Johnson, S. 1976, *The Roman Forts of the Saxon Shore* (London)
- Johnstone, C. and Albarella, U. 2002, *The Late Iron Age and Romano-British Mammal and Bird Bone Assemblage from Elms Farm, Heybridge, Essex (Site Code: HYEF93–95)*, Centre for Archaeology Report 45/2002 (Portsmouth)
- Major, H. 1982, 'Iron Age triangular clay loom weights, in The Work of the Essex County Council Archaeology Section, 1981', *Essex Archaeol. Hist.* 3rd Ser., 14, 117–22
- Medlycott, M. (ed.) 2011, *Research and Archaeology Revisited: a revised framework for the East of England*, E. Anglian Archaeol. Occas. Pap. 24
- Medlycott, M. and Atkinson, M. 2012, 'Aspects of Roman settlement in Essex', in Brown, N., Medlycott, M. and Bedwin, O. (eds), *The Archaeology of Essex: proceedings of the Chelmsford Conference*, Essex Archaeol. Hist., 4th Ser., 3, 74–96
- Monaghan, J. 1987, *Upchurch and Thameside Roman Pottery: a ceramic typology for northern Kent, first to third centuries AD*, Brit. Archaeol. Rep., Brit. Ser., 173 (Oxford)
- Monckton, A. 2015, 'Charred plant remains', in Atkinson, M. and Preston, S.J., 'Heybridge: A Late Iron Age and Roman Settlement. Excavations at Elms Farm 1993–5', *Internet Archaeology* 40: Available: <<http://dx.doi.org/10.11141/ia.40.1.monckton>> (accessed 15 June 2017)
- Murphy, P. 2003, 'Botanical evidence', in Germany, M., *Excavations at Great Holts Farm, Boreham, Essex, 1992–4*, E. Anglian Archaeol. 105, 204–15
- Murphy, P., Heppell, E. and Brown, N. 2012, 'The Archaeology of the Essex Coast', in Brown, N., Medlycott, M. and Bedwin, O. (eds), *The Archaeology of Essex: proceedings of the Chelmsford Conference*, Essex Archaeol. Hist., 4th Ser., 3, 141–54
- Mustchin, A.R.R. 2014, *Former Smoke House Inn, Beck Row, Mildenhall, Suffolk. Research Archive Report; Volumes 1 and 2*, unpubl. Archaeological Solutions Ltd report 4514
- Mustchin, A.R.R., McClean, C. and Cussans, J.E.M. 2016a, *Land at Asbeldham Quarry, Essex. An Archaeological Excavation: Research Archive Report*, unpubl. Archaeological Solutions Ltd report 5129
- Mustchin, A.R.R., Cussans, J.E.M., Summers, J.R., and Peachey, A. 2016b, 'A Large Romano-British Farmstead at North Stud, Woodditton, Cambridgeshire', *Proc. Cambridge Antiq. Soc.* 105, 7–34
- Mustchin, A.R.R. and Peachey, A. forthcoming, 'An Early Romano-British Double Flue Pottery Kiln at Church Road, Snape, Suffolk', *J. Roman Pottery Studies*
- Nicholson, K. and Summers, J.R. 2014, 'The archaeobotanical samples', in Newton, A.A.S., *Land South of Tunbridge Hall, Tunbridge Lane, Bottisham, Cambridgeshire: Research Archive Report*, unpubl. Archaeological Solutions Ltd Report 4506
- Peachey, A. 2016, 'The Pottery', in Mustchin, A.R.R., McClean, C. and Cussans, J.E.M., *Land at Asbeldham Quarry, Essex. An Archaeological Excavation: Research Archive Report*, unpubl. Archaeological Solutions Ltd Report 5129
- Soil Survey of England and Wales, 1983, *Legend for the 1:250,000 Soil Map of England and Wales* (Harpندن)
- Summers, J.R. 2014, 'The Charred Plant Macrofossils and Charcoal', in Mustchin, A.R.R., *Former Smoke House Inn, Beck Row, Mildenhall, Suffolk. Research Archive Report; Volume 1 – Report*, unpubl. Archaeological Solutions Ltd report 452, 282–300
- Summers, J.R. 2015, 'Carbonised plant macrofossils', in Newton, A.A.S., *Land North East of Fordham Road, Sobam, Cambridgeshire; Research Archive Report*, unpubl. Archaeological Solutions Ltd report 4816
- Summers, J.R. 2016, 'The Environmental Samples', in Mustchin, A.R.R., McClean, C. and Cussans, J.E.M., *Land at Asbeldham Quarry, Essex. An Archaeological Excavation: Research Archive Report*, unpubl. Archaeological Solutions Ltd report 5129, 40–46
- Taylor, J. 2007, *An Atlas of Roman Rural Settlement in England*, Counc. Brit. Archaeol. Res. Rep. 151
- Thompson, I. 1982, *Grog-Tempered 'Belgic' Pottery of South-eastern England*, Brit. Archaeol. Rep., Brit. Ser., 108 (Oxford)
- Tomber, R. and Dore, J. 1998, *The National Roman Fabric Reference Collection* (London)
- Tyrell, R. 2015, 'Ceramic loomweights', in Atkinson, M. and Preston, S.J., 'Heybridge: A Late Iron Age and Roman Settlement, Excavations at Elms Farm 1993–5', *Internet Archaeology* 40: Available: <<http://dx.doi.org/10.11141/ia.40.1.tyrell3>> (accessed 15 June 2017)
- University of Southampton, 2003, *Animal Bone Metrical Archive Project (ABMAP)* [data-set], Archaeology Data Service, York [distributor]. Available: <<https://doi.org/10.5284/1000350>> (Accessed 20 September 2017)
- van der Veen, M. 1989, 'Charred grain assemblages from Roman-period corn driers in Britain', *Archaeol. J.* 146, 302–19

- von den Driesch, A. 1976, *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletins 1 (Harvard Univ. Press)
- Wallis, S. and Waughman, M. 1998, *Archaeology and the Landscape in the Lower Blackwater Valley*, E. Anglian Archaeol. 82
- Wessex Archaeology, 2006, *Stilton, Cambridgeshire: Archaeological Evaluation and Assessment of Results*, unpubl. Wessex Archaeology report 62505.01
- West, S. 1990, *West Stow: The Prehistoric and Romano-British Occupations*, E. Anglian Archaeol. 48
- Williams, D. 2005 *Roman Amphorae: A Digital Resource*, University of Southampton: Available: <[http://archaeologydataservice.ac.uk/archives/view/amphora\\_ahrb\\_2005/](http://archaeologydataservice.ac.uk/archives/view/amphora_ahrb_2005/)> (Accessed 200 September 2017)
- Yates, D. 2012, 'Connecting and Disconnecting in the Bronze Age', in Brown, N., Medlycott, M. and Bedwin, O. (eds), *The Archaeology of Essex: proceedings of the Chelmsford Conference*, Essex Archaeol. Hist., 4th Ser., 3, 26–36



# The Romano-British small town and temple complex at Harlow, Essex: a liminal community on the Catuvellaunian-Trinovantian border

Stephen Rippon,

with a contribution by Kevin Hayward<sup>1</sup>

*The large number of Iron Age coins from Harlow suggests that it was a site of great significance in the pre-Roman period. A Romano-Celtic temple was constructed on Stanegrove Hill in the late 1st century AD, just to the south of where the Roman road from Braughing to Chigwell crossed the river Stort. Romano-British material has been found scattered beneath the modern urban areas to the north, east, and south of Stanegrove Hill and although many of the excavations were carried out in hurried conditions and have not been published, the surviving archives suggest that the Roman-period occupation was extensive (covering c.40 ha), dense, and largely non-agricultural in character comprising a range of industrial, commercial, and ritual activities. The material culture at one site—Holbrook's—included evidence for industrial production and a large number of votive objects, leading to it being variously interpreted as a workshop or a second temple. Excavations at Stafford House also revealed extensive industrial activity. To the east of the Harlowbury valley a discrete area of dense, high status, occupation may be villa or another temple, and building debris found during fieldwalking included a fragment of a column made of Portland Stone.*

## INTRODUCTION: A TRINOVANTIAN CIVITAS?

Territorial identities help to give communities a sense of place, and regional variations in material culture and architectural styles have long been used to express identity. Such regional identities became firmly established in prehistory, and by the Late Iron Age documentary sources and numismatic evidence suggest that communities across South East Britain had established a series of kingdoms that emerged during the late 1st century BC and early 1st century AD through the amalgamation of a series of smaller-scale communities (Allen 1944; Creighton 2000; Curteis 2006). It has been widely assumed that these existing territorial identities were then used as the basis for the administrative units (*civitates*) of Roman Britain, with place-names such as *Venta Icenorum* commemorating the pre-Roman people who lived in that region (an abbreviated form of the name is present on some coin issues). A *gens* called the 'Cenimagni' are also recorded by Caesar (*De Bello Gallico* V.21), which may refer to 'Iceni magni' or 'great Iceni' (Rivet and Smith 1981, 373–4; 492). A key question is where the boundaries of these late pre-Roman kingdoms and Roman *civitates* lay. The widespread view is that the *civitates* in South East Britain simply replaced Late Iron Age kingdoms (e.g. Millett 1990, 99), in which case their boundaries would logically have lain in very similar places. This continuity hypothesis has, however, been challenged by Mattingly (2006, 358) who argued that:

'Maps often portray Late Iron Age Britain as carved up into a series of contiguous "tribal" territories, corresponding exactly with the *civitates* recognized by Rome. The sizes of these implied *territoria* are vast—most being equivalent to at least two modern counties. This conventional picture of massive *civitas* units is more problematic than generally admitted ... for instance, the widely assumed correspondence between Iron Age coin "territories" and the Roman *civitates* does not stand close scrutiny. To some extent the post-conquest *civitates* were simply

a matter of administrative convenience and we cannot assume exact territorial or social correlation with pre-existing Iron Age groups'.

Some historians have gone even further, rejecting the idea that there were discrete *civitates* ruled from a single capital (e.g. Laurence 2001, 88–90), although this extreme view is rightly seen as 'unconvincing' in the most recent discussion (Smith *et al.* 2016, 403).

One particular area of contention is whether there was a *civitas* of the Trinovantes, and where its capital may have been. Smith *et al.* (2016, 403) have noted that the Trinovantes are not explicitly documented as a *civitates* (although in such a poorly documented period absence of evidence is not evidence of absence), and the Trinovantes are one of the peoples referred to by Ptolemy and Tacitus writing in the early second century, and by Orosius in the early fifth century (although the latter was probably using earlier sources: Rivet and Smith 1981, 77–8, 475). With regard to any *civitas* capital, Wachter (1995, 207–8) argued for Chelmsford on the basis of its name *Caesaromagus*, although the consensus has been that it was Colchester which Ptolemy attributed to the Trinovantes (Black 1995, 25–6; Gascoyne and Radford 2013, 77, 100; Fulford 2015, 59). The initial foundation of *Colonia Victricensis* (Colchester) was as a colony, and it may have been the initial intention that *Caesaromagus* was to serve as the *civitas* capital (Wickenden 1996, 91), or that *Verulamium* was intended to serve both the Catuvellauni and the Trinovantes following the recent unification of these two peoples under Cunobelin. It is also possible that there were originally separate *civitates* for the Catuvellauni and the Trinovantes but that over the course of the Roman period the latter was absorbed within the former (which would account for the lack of explicit documentary reference to a Trinovantian *civitas*), although this goes against the trend seen elsewhere in later Roman Britain for *civitates* to get smaller not larger (e.g. the probable promotion of Ilchester, in Somerset, to *civitas* status: Fulford 2006).

While there is frustratingly little evidence for the administrative status of what had been the Trinovantian region in the Roman period, it is increasingly clear that during the Iron Age the communities living there had created a distinct identity for themselves (for a fuller discussion see Rippon forthcoming a). The regions either side of the Lea and Stort valleys—that are referred to here as the North-Eastern and North-Western Thames Basin—had distinctive suites of material culture and settlement patterns throughout the Middle and Late Iron Ages, although the differences between the North-Western Thames Basin and the adjacent East Anglia were even more pronounced. The boundary between the latter two regions appears to have run through the high Boulder Clay plateau south of the Gipping and Lark valleys, not along the present-day Essex-Suffolk border in the Stour valley (Fig. 1; Rippon forthcoming a). For example, whereas Middle to Late Iron Age settlement enclosures in the North-Eastern Thames Basin were mostly square or oval, those in the North-Western Thames Basin and the South East Midlands were usually

irregular (often D shaped). Bearing in mind that some later Iron Age coins found their way outside the regions within which they were minted, the issues of Tasciovanus, Andoco, Dias, Sego, and Rues, and the coins of Cunobelin where he proclaims himself the son of Tasciovanus (probably minted at *Verulamium*) appear to define the Catuvellaunian area, while British G/Clacton'-type staters, the coins of Dubnovellaunus, and Cunobelin's issues from the mint at *Camulodunum* correspond to the Trinovantian area (see Rippon forthcoming a for a full discussion). Facets of this regional distinctiveness are also seen in Romano-British material culture and architecture (Fig. 2), although once again the differences between the Northern Thames Basin and East Anglia are far clearer than those within the Northern Thames Basin. For example, although there are abundant villas known in both areas, relatively few have sufficiently complete plans to determine their layout, but it is still very noticeable that in the North-Western Thames Basin they predominantly have a winged-corridor layout, while there is a greater variety in the North-

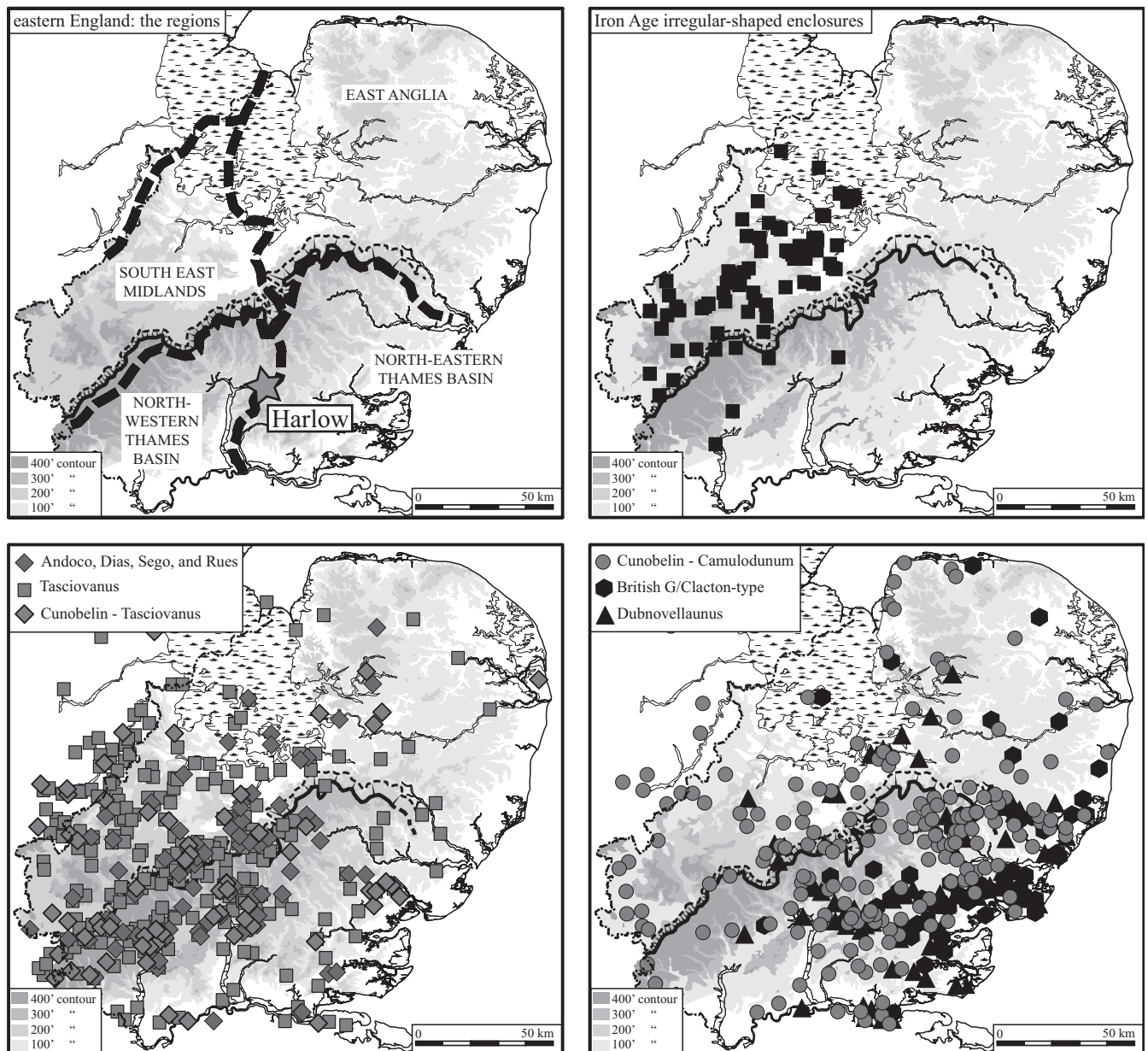


FIGURE 1: Aspects of the distinctive Iron Age material culture in the North-Eastern and North-Western Thames Basin, corresponding to the Trinovantian and Catuvellaunian areas respectively.

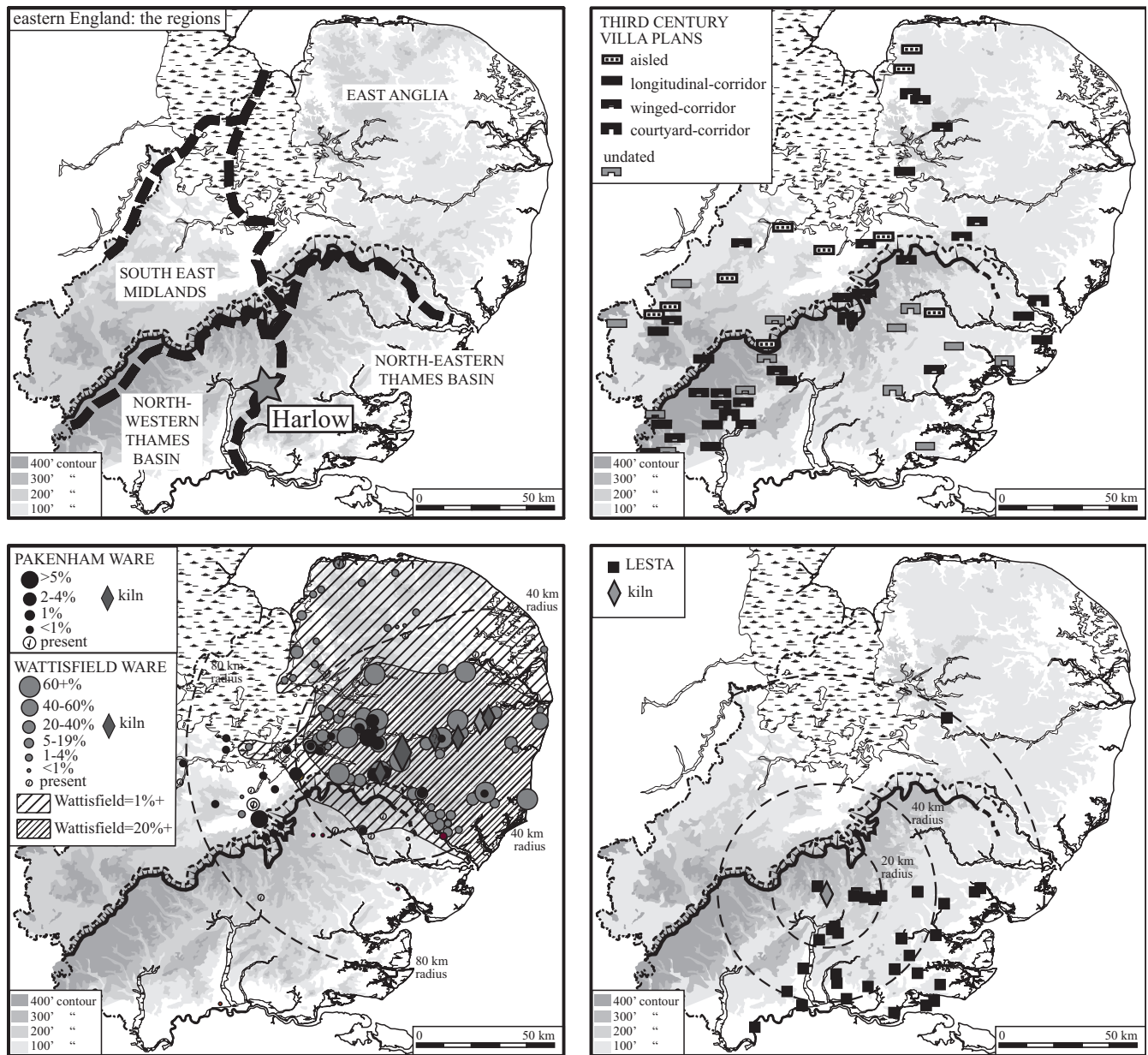


FIGURE 2: Aspects of the distinctive Romano-British material culture and architecture in the North-Eastern and North-Western Thames Basin, corresponding to the Trinovantian and Catuvellaunian areas respectively.

Eastern Thames Basin with the majority having a simple longitudinal corridor along one site (see Rippon forthcoming a for a full discussion). Although there does not seem to have been distinctively 'Catuvellaunian' or 'Trinovantian' types of pottery, some locally produced coarse wares, such as 'London-Essex Stamped Ware (LESTA), have restricted distributions that might suggest that they were favoured by communities living in one area more than another. The scarcity of pottery produced in East Anglia—such as Wattisfield Ware—in the North-West Thames Basin is also very striking, particularly as it appears to have travelled quite freely to the west into the South East Midlands (see Rippon 2017; forthcoming a for a full discussion): the same phenomenon is seen in the Middle Saxon period (Fig. 3).

Irrespective of whether the Trinovantes had the status of a *civitas* in the Roman period, the communities living there appear to have retained a distinct identity, and this continued into the early medieval period when the regional differences

became even clearer (Rippon forthcoming a; b; c). Indeed, it is striking that evidence for Anglo-Saxon colonization within what was to become the East Saxon kingdom is far less extensive than in East Anglia and the South East Midlands, with burials containing Germanic grave goods, and settlements associated with *Grubenhäuser*, being largely restricted to coastal and estuarine district (Fig. 3). In contrast, inland parts of the Northern Thames Basin appear largely devoid of evidence for Anglo-Saxon settlement, despite the extensive reporting of metalwork from other periods to the Portable Antiquities Scheme. It is also striking that large-scale programmes of survey and excavations in advance of the expansion of Stansted Airport, the construction of roads such as the A120 and A130, and associated urban development have revealed numerous prehistoric, Romano-British, and later medieval settlements but no *Grubenhäuser* or Anglo-Saxon cemeteries (e.g. Havis and Brooks 2004; Dale *et al.* 2005; Ennis 2006; Mayo 2006; Roberts 2007; Timby *et al.* 2007; Cooke *et al.*

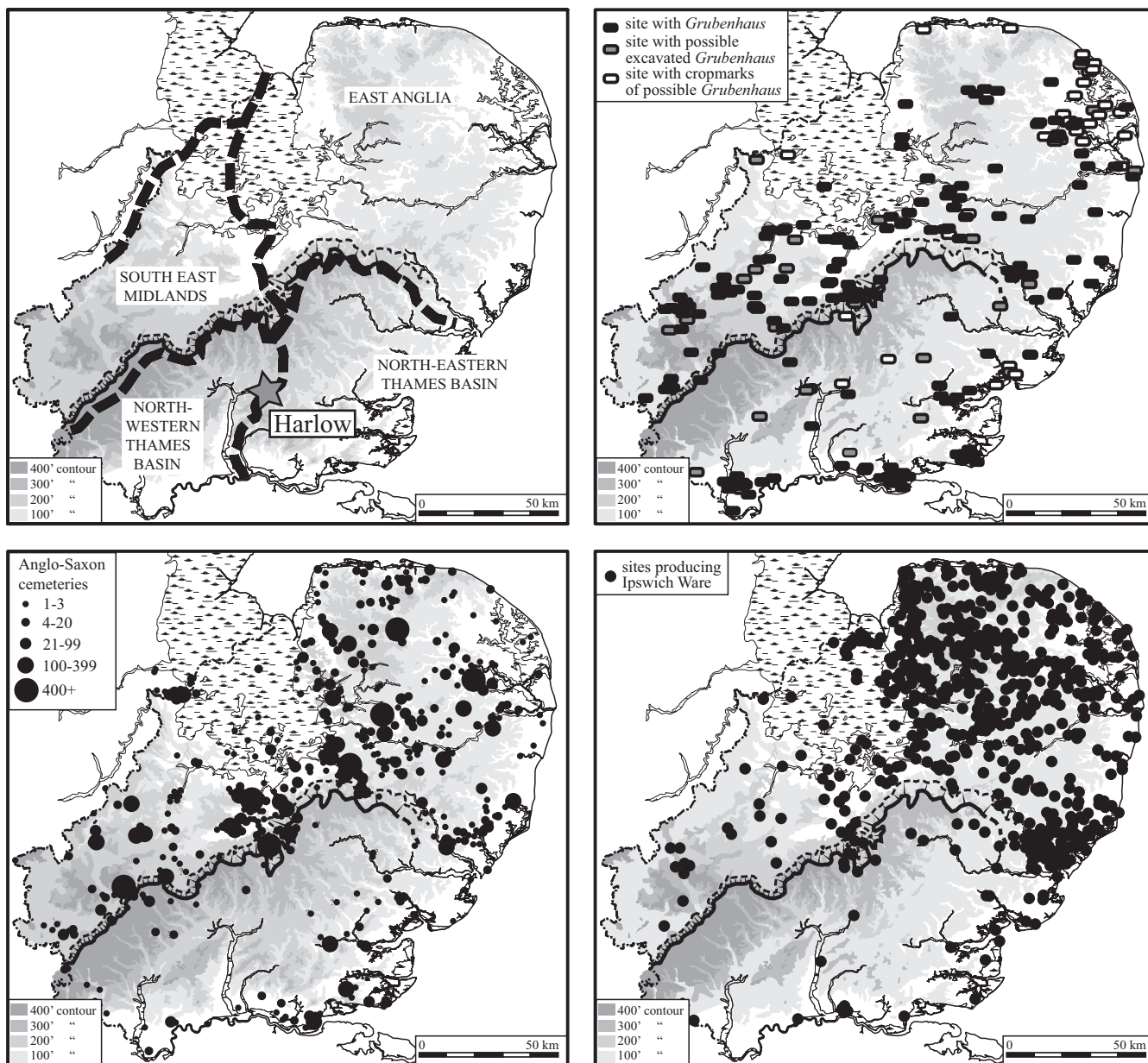


FIGURE 3: Aspects of the distinctive early medieval material culture and architecture in the Northern Thames Basin and East Anglia, corresponding to the East Saxon and East Anglian kingdoms respectively (see Rippon forthcoming a for a full discussion).

al. 2008; Germany 2010). Palaeoenvironmental evidence, and the apparent continuity of some Romano-British field systems into the medieval period, suggests that these inland districts were not abandoned in the post-Roman period and that a substantial native British population continued to live in this area (Rippon *et al.* 2015; Rippon forthcoming a; b). These marked differences in material culture continued into the Middle Saxon period, reflected for example in the areas within which Ipswich Ware (Fig. 3) and East Anglian coinage circulated (discussed in depth in Rippon forthcoming a).

**MAPPING CIVITAS BOUNDARIES**

One of the reasons why there is now a degree of scepticism over the continuity hypothesis—that Iron Age kingdoms became Romano-British *civitates*—is the lack of evidence for where their boundaries may have lain (see Mattingly’s observation above). The constant recycling of maps purporting to show *civitas* boundaries is part of the problem: Gerrard 2013,

fig. 62 and McCarthy 2013, fig 3.1, for example, are both reproductions of Millett’s (1990, fig. 16) map, whose caption states that the boundaries ‘generally follow’ those of Rivet (1958), meaning that two maps purporting to show *civitas* boundaries published in 2013 are based upon a source that first appeared over fifty years earlier. Previous attempts at mapping *civitas* boundaries can, however, at best be described as sketchy, and when superimposed upon a background showing major topographic features their implausibility becomes clear. The putative boundaries of the Trinovantian *civitas*, for example, are shown by Millett as black lines on a white background (Fig. 4.A), but when plotted against the natural topography they are revealed as cutting diagonally across river valleys and the chalk escarpment in a way that is entirely illogical (*e.g.* Fig. 4.B).

If, however, we think about what *civitas* boundaries will have been for, then it may become easier to work out where they may have lain. Roman administrators will have required

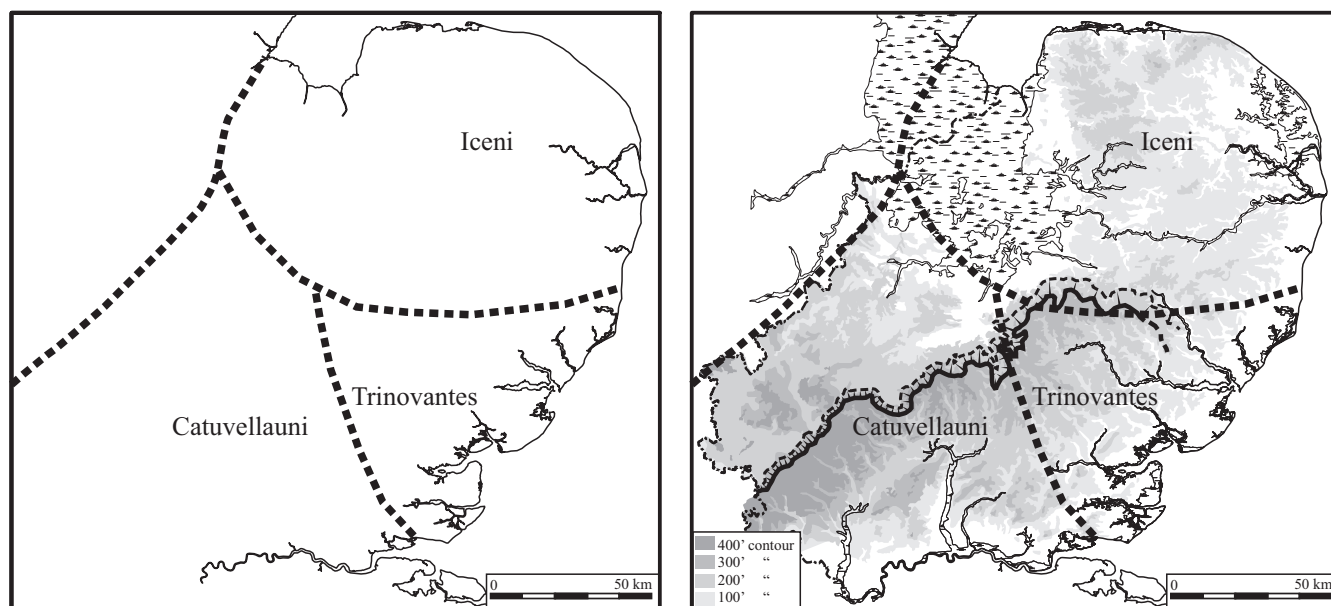


FIGURE 4: The most common reconstruction of *civitas* boundaries. Left: as published by Rivet, Millett etc (with no contextual topographic detail); Right: Rivet, Millett etc's boundaries against a background of topography, showing how illogical they are.

that every citizen knew within which jurisdiction they should pay their taxes and should seek justice (Branigan 1987, 26; Braund 1988; Reynolds 1988, 34; Millett 1990, 149), and as such these boundaries will need to have been clearly defined. In many cases the easiest solution will have been to use existing boundaries that were well known to local communities, which supports the continuity hypothesis outlined above in suggesting that *civitates* would have been mapped onto Iron Age communities. The clearest way of defining territorial boundaries in any period is to use prominent natural features, with the clearest lines in the landscape being rivers. Throughout much of later prehistory ritual deposition was focussed in such locations (*e.g.* Bradley 2000; 2007), and in the Roman world rivers were thought of as deities, with crossing them being seen as a mighty undertaking, making them an ideal choice for territorial boundaries (Braund 1996, 15–19). The seasonally flooded wetlands with which rivers were associated, such as the Lea/Stort floodplains, will also have been sparsely settled landscape zones making them ideal places for locating relatively uncontested territorial boundaries. Similarly, the heathland, unenclosed pasture, and woodland that was often found on areas of high ground will have made watersheds an ideal location for territorial boundaries, and this is clearly seen right across south-western Essex (Fig. 5).

### TEMPLES AND BOUNDARIES

One strand of evidence that has in the past been used to locate possible territorial boundaries has been the position of religious sites. In 2nd-century AD Greece, for example, the travel writer Pausanias tell his readers that various shrines, temples, and tombs of historically significant figures were located on political boundaries (*Pausanias* 1.34.1–5; 1.38.3; 1.44.10; 2.35.2; Alcock 1996, 118–28; Levi 1979; de Polignac 1995, 32–41), and Pretzler (2007, 103) argues that the identity of every *polis* was 'closely connected with its memorial landscape'. In Gaul, Rivet (1958, 134–5) noted that rural temples were similarly located in liminal locations 'since they provided

sanctuary for refugees, places where agreements could be sanctified, and markets for inter-tribal commerce'. In Britain, he notes that Frilford and Woodeaton, in Oxfordshire, lay on the likely boundary between the Catuvellauni and Dobunni, to which we can add Bourton Grounds in Thornborough, Buckinghamshire, a classic square-shaped Romano-Celtic temple consisting of a cella and ambulatory associated with a roadside settlement (Fig. 6; Green 1965; Johnson 1975). Brigstock, in Northamptonshire, appears to have lain on the putative boundary between the Catuvellauni and the Corieltavi (Rivet 1964, 134, 146; Hodder 1972; 1975; Burnham and Wachter 1990, 40; Millett 1990, 148; Curteis 1996; 2001; Laycock 2008, 118). Less well-known sites that appear to lie on Late Iron Age territorial boundaries include Great Blakenham on the southern slopes of the Gipping Valley near Coddendam, in Suffolk, that appears to mark the Icenian-Trinovantian boundary and where a surface scatter includes pottery, large amounts of metalwork including 163 coins 38 brooches, and possible fragments of an altar (Suffolk Historic Environment Record (HER) BLG004). To the west, a pronounced line of sites on or just below the Chilterns—that probably marked the northern limit of the Catuvellaunian region before its expansion under Tasciovanus—includes two Romano-Celtic temples, at Ashwell End in Hertfordshire (Burnham *et al.* 2007, 278–80; Burleigh 2015) and Great Chesterford in Essex (Medlycott 2011), and possible sites at Barkway, Hinxworth, and Oughtonhead near Hitchin, in Hertfordshire (Burleigh 2015, 99–101, 103–8, 109–10). Petts (2003) has noted the tendency for ritual deposition of metalwork in Roman Britain to occur in wet places, continuing a long tradition of this practice in prehistory, and an example is at Pegsdon in Shillington, Bedfordshire, at the foot of the chalk escarpment (Burleigh and Megaw 2007; Burleigh 2015, 103–8). Great Chesterford lies at the head of another line of ritual sites that runs down into the lowlands of south-eastern Cambridgeshire (close to the line of Middle Iron Age hillforts between Sawston and Belsar's Camp) that includes Mutlow Hill in Great Wilbraham (Neville 1842; Rodwell 1980, 570), Gallows Hill in Swaffham





FIGURE 5: Watershed commons on the high ground of the Lea, Stort, and Roding valleys. Left: the boundaries of early medieval folk territories (*regiones*) almost invariably ran through these sparsely settled parts of the landscape (Rippon forthcoming b); Right: many of these commons survived through to the late 18th century to be mapped by Chapman and Andre in 1777 (for location see inset box on left-hand map).

Prior (Bray and Malim 1998; Malim 2006), Whiteland Springs in Bottisham (Cambridgeshire HER 10396), and Cottenham (Taylor 1980, x).

**HARLOW: A LIMINAL LANDSCAPE**

This paper will explore the wider context of one of the best-known temples in this region—Harlow (Figs 1 and 7)—that appears to have lain on the boundary between the Catuvellauni and Trinovantes in the 1st century AD (although not necessarily before that time: see Curteis 2006 for a discussion of the earlier coin distributions that suggest the Trinovantian influence may not yet have extended this far west). Harlow is archaeologically famous for its Romano-Celtic temple on Stanegrove Hill, north west of Old Harlow, and also appears in the published literature as a Romano-British small town. Burnham and Wachter’s (1990, 183–88) summary has been the most thorough account of various mostly small-scale, and wholly unpublished, excavations that have taken place. Another important but ill-understood Roman site lies

to the east of the Harlowbury valley where cropmarks and the discovery of Roman material through fieldwalking led to the site being scheduled as a Roman villa, (Scheduled Monument (SM) 1014738) although the surrounding fields are due to be developed for housing (a site known as ‘North of Gilden Way’). The aim of this paper is to bring together all of the evidence from Romano-British Harlow, and in particular consider whether instead of there being a single temple, there were in fact several. Three areas will be discussed in turn: firstly, a brief summary of the well-known temple on Stanegrove Hill; secondly, a synthesis of the various excavations within the small town adjacent to Stanegrove Hill including the site of a possible temple at Holbrook’s; and thirdly a summary of the survey work carried at Harlowbury/North of Gilden Way.

**Stanegrove Hill, Latton**

The site at Stanegrove Hill (TL 486 123; Essex HER 17, 3581; Fig. 7), in the parish of Latton, has seen a long history of antiquarian discoveries, and four campaigns of excavation

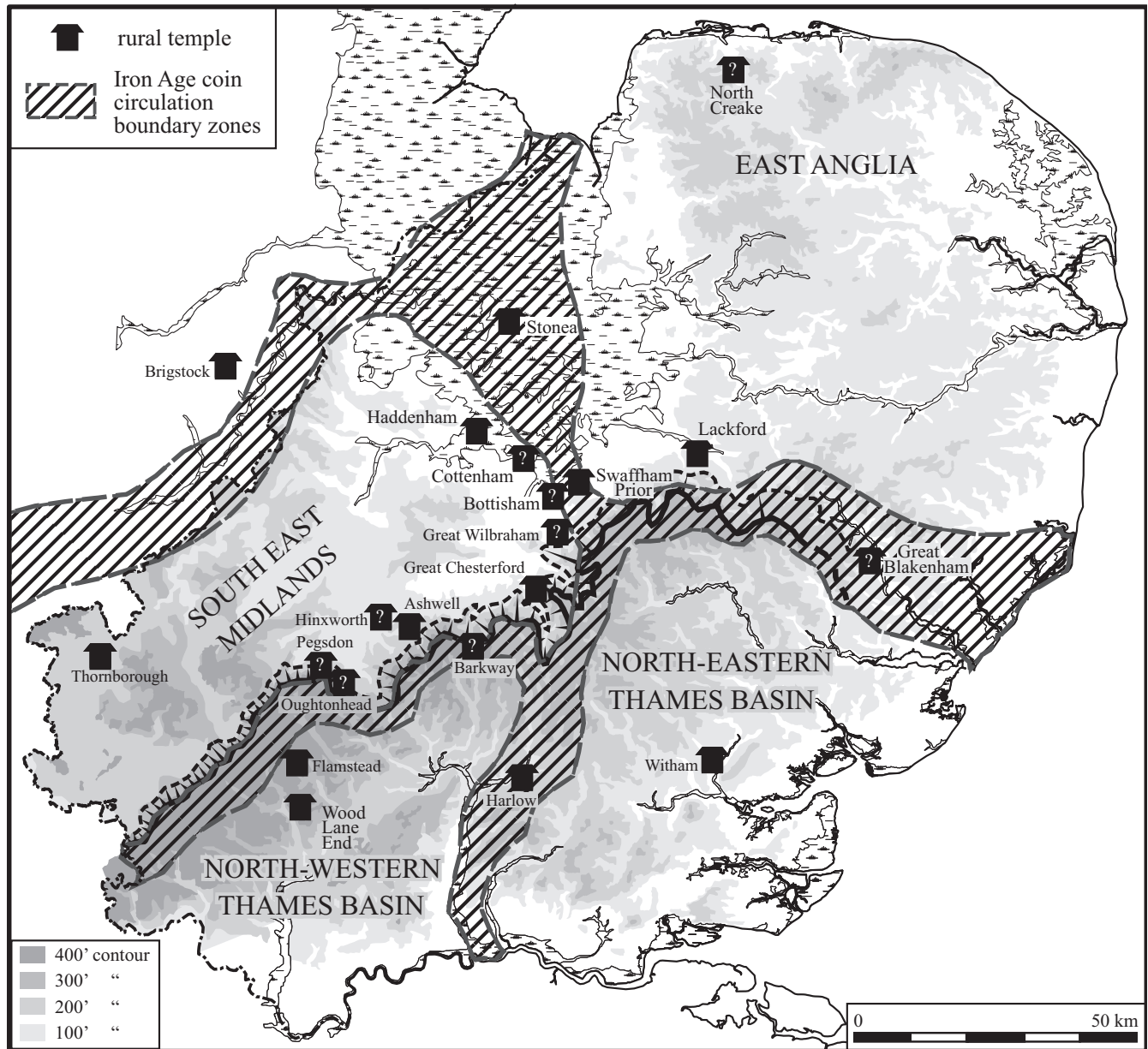


FIGURE 6: The distribution of rural Romano-Celtic temples across eastern England mapped against a background showing the boundaries between the major Iron coin circulation zones (see Rippon forthcoming a for a full discussion).

of which two—in 1927 and 1962–71—have been published (Wheeler 1928; France and Gobel 1985) whilst the others—in 1935–6 and 1985–8—have not (for brief notes see Hull 1963, 139; Priddy 1986, 161; 1987, 107; 1988, 265; Bartlett 1988a; Black 2015). The archives of the latter phase of work have been digitised and made available through the Archaeology Data Service (Medlycott 2016; Copper 2016).

*Iron Age origins*

The earliest structural evidence is a circular gully, 13m in diameter, located within the courtyard of the later Romano-Celtic temple. Large amounts of Late Iron Age (1st-century BC) pottery, animal bone, and the bronze edging of a dagger scabbard were found in the gully terminals. Other high status finds included early 1st-century AD brooches, while the animal bone assemblage was dominated by sheep/goat (Bartlett 1988a).

At least 934 Iron Age coins can be reliably provenanced to Harlow including 232 from Stanegrove Hill up to and including the 1962–71 excavations (Allen 1965; 1968; 1969; Fitzpatrick 1985), 595 from the 1985–87 excavations (Bartlett 1988a), a hoard of fifty-five coins probably from Old Harlow c.2 km to the south (Fitzpatrick 1985), and thirty-seven coins excavated at Holbrook's in 1970 (Conlon 1973; Fitzpatrick 1985). The importance of these Iron Age coins from Harlow is well known, and they feature prominently in discussions of coin use and deposition at temple sites (Haselgrove 1989; 2005). Of the 339 Iron Age coins studied by Andrew Fitzpatrick (1985) most are of Tasciovanus, his probable contemporaries Dias, Rues, and Andoco (which are regarded as sub-rulers of the Catuvellauni: Curteis 2006), or Cunobelin where he declares Tasciovanus to be his father. That there is only one possible coin of Dubnovellaunus—thought to be a ruler of the Trinovantes—is very noticeable. A similar pattern is seen at Great Chesterford, in north-west Essex, from where fifty

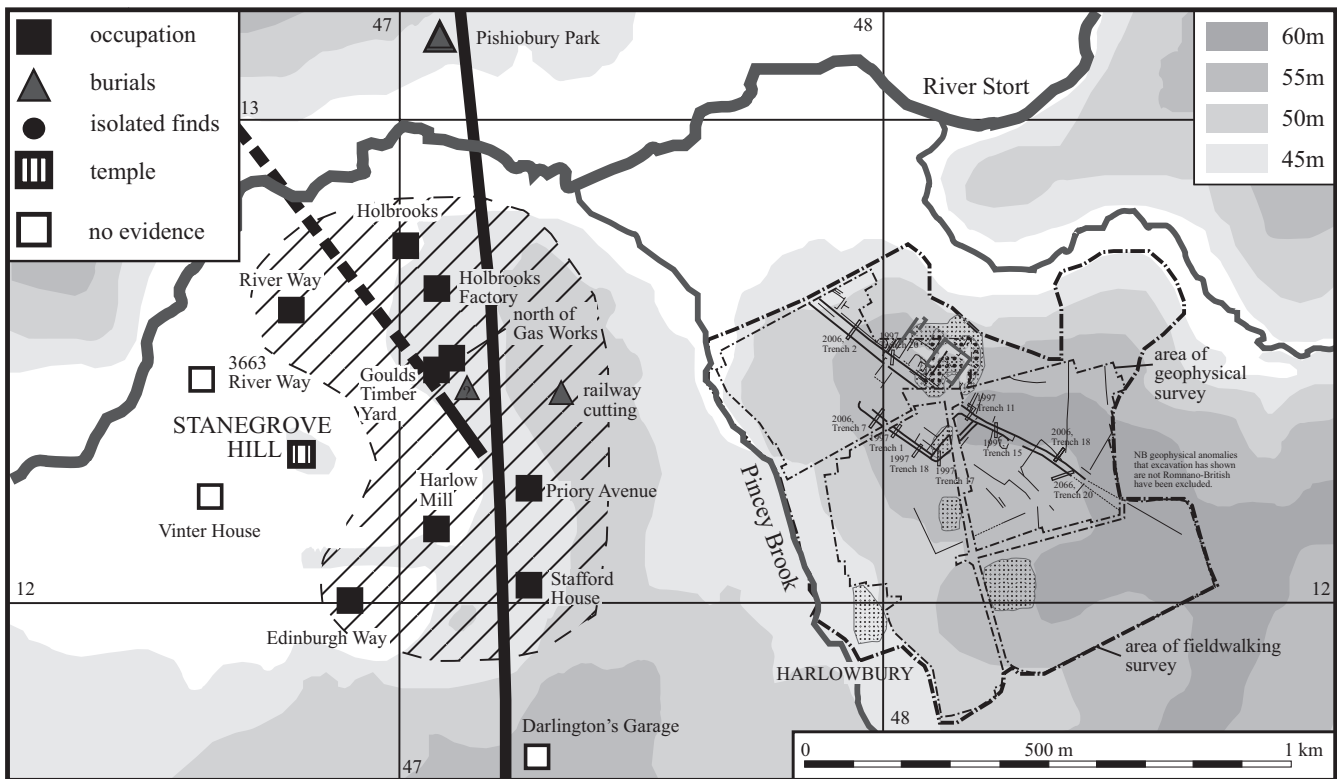


FIGURE7: Roman Harlow

Iron Age coins have been recovered and all but one of the inscribed issues are of Tasciovanus, Andoco, and Cunobelin where he declares himself the son of Tasciovanus (Medlycott 2011, 262); the absence of issues of Dubnovellaunus is again striking. The proportion of coins where Cunobelin includes the name of Tasciovanus (TASC/CVNO), thought to have been minted at *Verulamium*, as opposed to those with the *Camulodunum* mint mark (CAM/CVNO), is also very high at Harlow (77% of the 255 coins of Cunobelin: Fitzpatrick 1985, 51–6), while at Great Chesterford the figure is 86% (six out of seven coins: Medlycott 2011, 265). In contrast, at Elms Farm in Heybridge the figure is just 1% (one out of seventy-two coins: Atkinson and Preston 2015a; 2015b, section 3.4) and at *Camulodunum* just 12% albeit from a smaller sample (three out of twenty-five coins: Hawkes and Hull 1947; Niblett 1985, fiche 3). This may suggest that the TASC/CVNO types were produced and circulated in areas where Cunobelin wanted to assert his legitimacy—implying that he was an alien power (Allen 1965, 3–4; Creighton 2000, 172–3)—with the boundary of his original kingdom being the Lea and Stort valleys or nearby.

#### *The Romano-Celtic temple*

The earliest masonry temple on Stanegrove Hill dates to c.AD 80 and was probably associated with the god Minerva (France and Gobel 1985; Black 2015). This late 1st-century temple comprised a simple stone-built square cella and surrounding ambulatory (probably with a tessellated pavement: Wheeler 1928; Neal and Cosh 2009, 144; Black 2015), which in the early 2nd century was enclosed by a timber palisade in order to create a temenos. Around c.AD 200 the timber palisade was replaced by a rectangular stone-built wall with a small gatehouse, while two small rooms were added to the front of

the ambulatory, at least one of which had a tessellated floor. A British-made Late Roman (second half of the 4th century) buckle plate has Christian imagery—a peacock pecking the fruit of a small tree—suggesting that a Christian and/or a Late Roman militia presence is possible (France and Gobel 1985, 89, fig. 46, No. 119; Bartlett 1988b). The site appears to have declined in the mid 4th century, although a coin of Honorius shows that it was still frequented in the very late 4th century (Priddy 1988, 265; Curteis 2015).

#### **The Romano-British Small Town** (Fig. 7)

Although there have been a large number of excavations to the north, east, and south of Stanegrove Hill none have been published, apart from various short summaries in the *Journal of Roman Studies*, *Britannia*, *Essex Archaeology and History*, and the Essex Historic Environment Record (EHER). In the following account of these excavations the sites are grouped into three areas to the north (Holbrook's/River Way), east (Prior Avenue/Stafford House), and south of Stanegrove Hill.

#### *Occupation north of Stanegrove Hill: Holbrook's and River Way*

The earliest work appears to have taken place in 1926, to the north of the Gas Works, on a slightly raised area over-looking the Stort floodplain (Fig. 8), where a rubbish pit containing a late 1st/early 2nd-century brooch and a large amount of late 1st-century pottery was discovered (TL 471 125; EHER 3603; Wright 1926; Hull 1963, 143). In 1935–6 excavations at Gould's Timber Yard and the Holbrook's machine tool factory (Fig. 8), also north of gas works, revealed a complete tessellated pavement and rubbish pits containing large amounts of pottery of which only two fragments survive (from a small

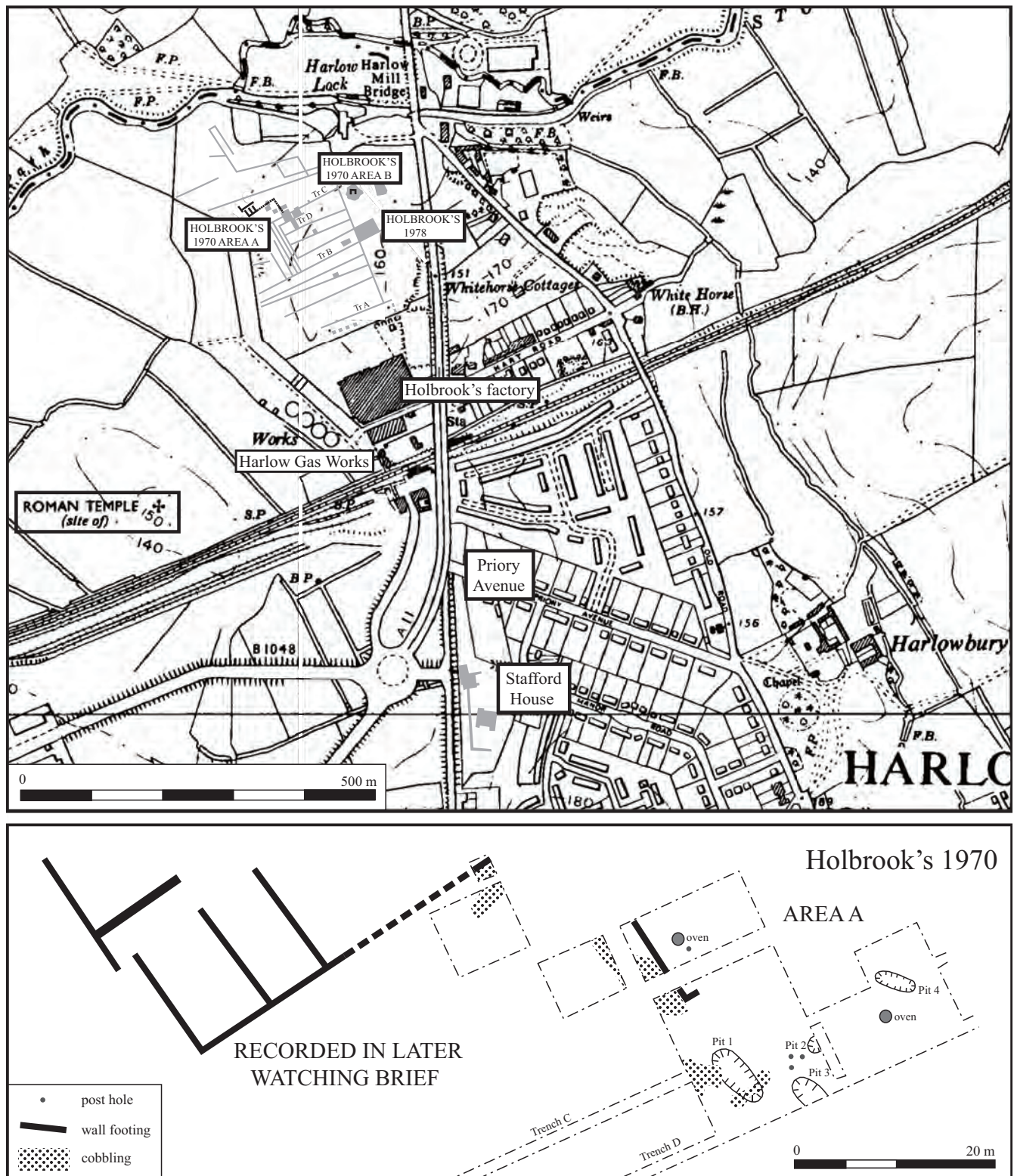


FIGURE 8: Location of the excavations at Holbrook's and Stafford House, superimposed on the Ordnance Survey 1:10,560 map published in 1965 (© Crown Copyright and Landmark Information Group Limited (2017), all rights reserved), and plan of the Holbrook's site (after Conlon 1973, fig. 2; Harlow Museum n.d.).

early 1st-century AD bowl and the neck of a 2nd to 3rd-century flagon: TL 4718 1252; EHER 3606; Hull 1963, 141). A large square pit was uncovered allegedly beneath a circular mound, containing numerous pottery sherds and brooches (TL 4718 1252; EHER 3601; Hull 1963, 142).

Further work took place at Holbrook's in 1970, to the north of the observations in 1926 and 1935–6. Excavations

revealed occupation across the 5.7 hectare (14 acre) building site including traces of at least one stone structure, metallised surfaces, and a very large number of artefacts including 130 1st-century brooches, an estimated two tonnes of pottery, over 600 coins, evidence for bronze and iron working, and votive objects (TL 470 127; EHER 3609; Wilson 1971, 272–3, 289–90). Unfortunately, the excavator died soon after, although

Conlon (1973) published a short note, with a plan of one of the excavated areas: a rough general site plan is preserved at Harlow Museum and is redrawn here (Fig. 8). The stone building, recorded in a watching brief after the main excavation had finished, had substantial walls 40–60cm thick comprising flint rubble in lime mortar. There were at least three rooms, one with a red tessera floor and plastered walls; there were also a large number of loose red, white, dark and light grey tesserae suggesting another, more sophisticated tessellated pavement. Reference to a ‘black ash-filled flue’ associated with these walls (Conlon 1973, 34) may be from a hypocaust system. A stretch of walling at right angles to the main building could have been part of another wing or a separate structure. Adjacent timber buildings appear to have been quite densely packed along gravelled roads. One metalised surface sealed Pit 1 that contained building material, painted wall plaster, and tesserae that might represent demolition debris: associated coins and pottery suggest a late 2nd-century date. Pit 1 also contained large amounts of domestic refuse (pottery, glassware, bone and bronze pins, butchered animal bone, oyster shells), iron-working slag, around 200 fragments of bronze sheet, and votive objects (a miniature axe, and a bronze leaf possibly from a headdress: these finds are illustrated in Conlon 1973). Pit 1 was sealed by a metalised surface containing 4th-century coins, and was cut by Pit 2 (a possible well, being circular in plan, vertical sided, and 3m deep) that contained 4th-century pottery and a lead curse. Other unstratified votive objects included another bronze leaf, two further miniature bronze axes, a highly decorated small pewter vessel, and three bronze letters of a type believed to have been bought by worshippers to nail onto leather or wood in order to construct votive messages (see Jones 2001 for a list of sites with similar bronze letters that includes Colchester, Great Chesterford, Ivy Chimneys and Kelvedon in Essex, Pakenham in Suffolk, and Aldeby, Great Walsingham, and Hockwold in Norfolk). Other features could not be tied into this stratigraphic sequence including further pits, post-holes, at least three clay ovens, and an iron-working hearth. Pot wasters suggest pottery production in the vicinity, while droplets of bronze, bronze-working slag, and lead-working debris point to industrial production. Thirty-seven lead weights point to considerable commercial activity. Of the 146 brooches, 130 were 1st century (a chronological bias also seen at Stanegrove Hill), while of the c.600 coins most were 3rd and 4th century.

The Holbrook’s site has been interpreted as an industrial area producing votive goods for worshippers at the Stanegrove Hill temple (Conlon 1973, 38; Burnham and Wachter 1990, 187), although Fitzpatrick (1985) has noted that no examples of these votive offerings were found there during the 1962–71 excavations, suggesting instead that Holbrook’s was itself the site of a temple that went out of use in the Flavian period. The later excavations on Stanegrove Hill in 1985–8 did, however, produce votive items including bronze and gold priestly regalia, three 1st-century AD miniature swords, and a miniature votive breast made of bronze and ivory (Gilman 1990, 133). The *Historic Town Assessment* (ECC 1999) and Perring and Pitts (2013, 48–89) both note that the masonry building at Holbrook’s does not look like a temple, with reference to a ‘black ash-filled flue’ indicative of a hypocaust and hence a building with a domestic function, although it should also be noted that the votive objects were not actually

associated with this building but were found nearby. Overall, it is very difficult to interpret what is clearly a very important assemblage from Holbrook’s. There is no reason to assume that the site retained the same function over the course of its life, and while the extraordinarily high number of Iron Age coins, 1st-century brooches, and Roman votive objects is indicative of a ritual complex, this appears to have been replaced by dense domestic/industrial occupation in the 2nd to 4th centuries.

In 1978 further archaeological observations were carried out at River Way to the west of Holbrook’s: evidence for Romano-British occupation included ditches, timber structures, and pits; evidence for manufacturing included iron-working slag and a bone trial piece (TL 465 122; Eddy 1979, 104). In 1979–82, further work at River Way, c.350m north of Stanegrove Hill, revealed possible wall footings, a scatter of roof and flue-tile, and a 2nd-century timber-lined well (TL 467 126; Eddy 1980, 43; 1981, 52; Priddy 1982, 140; Rankov 1982, 371–2). More recently, trenching in 2006 close to the river Stort at No. 3,663 River Way produced no evidence for Romano-British occupation (TL 465 124; Morse 2006), while at Vinter House, on River Way, trenching in 2015 similarly produced no evidence for Roman activity on the alluvial floodplain of the Stort (TL 465 122; Dyson 2015). The absence of Romano-British occupation at these low-lying locations is important in establishing the north-western limit of the small town.

Evidence for a cemetery has been found to the north of the river Stort in Pishiobury Park in Sawbridge, Hertfordshire. In 1898, two cremation urns were found close to the road crossing on the northern side of the river (TL 471 132; Hull 1963, 142), and in 1936 two inhumations were found associated with late 4th-century vessels, possible Nene Valley Ware (TL 472 137; Hull 1963, 142–3).

#### *Occupation east of Stanegrove Hill*

During the 19th century six wooden coffins containing inhumations, one with a ceramic vessel resting upon a patera placed between its legs and an ampulla near the head, were found in a railway cutting to the east of Stanegrove Hill (TL 4715 1232; EHER3602; Hull 1963, 142). In 1962, small-scale excavations at 1–2 Priory Avenue, directed by Walley Davey, revealed 3rd to 4th-century occupation, including at least one masonry building with painted wall plaster, a metal worker’s hearth, and bronze and iron working debris (Wilson 1963, 138; Harlow Museum n.d.). In 1970–72, test pits at Stafford House, also directed by Walley Davey, revealed occupation debris including 2nd to 3rd-century pottery, 3rd to late 4th-century coins, and roof and hypocaust tile (Harlow Museum n.d.).

In 1972–4 larger-scale excavations at Stafford House, directed by Jan Sewter, revealed three phases of occupation (Figs 8–9); TL 473 122; Harlow Museum n.d.; Walker n.d.; Wilson 1973, 304; 1974, 442) that based upon the notes in two brief typescript reports can be summarized as:

- Phase I (2nd century?): a timber-framed building (9m by 4m), possibly open on one side, lay within a circular palisade (c.12 m diameter); the interior of the building was covered in burnt material.
- Phase II (mid/late 3rd to early 4th century): a second, larger, north-west to south-east oriented timber building with a gravel floor measuring at least 10m by 9m was

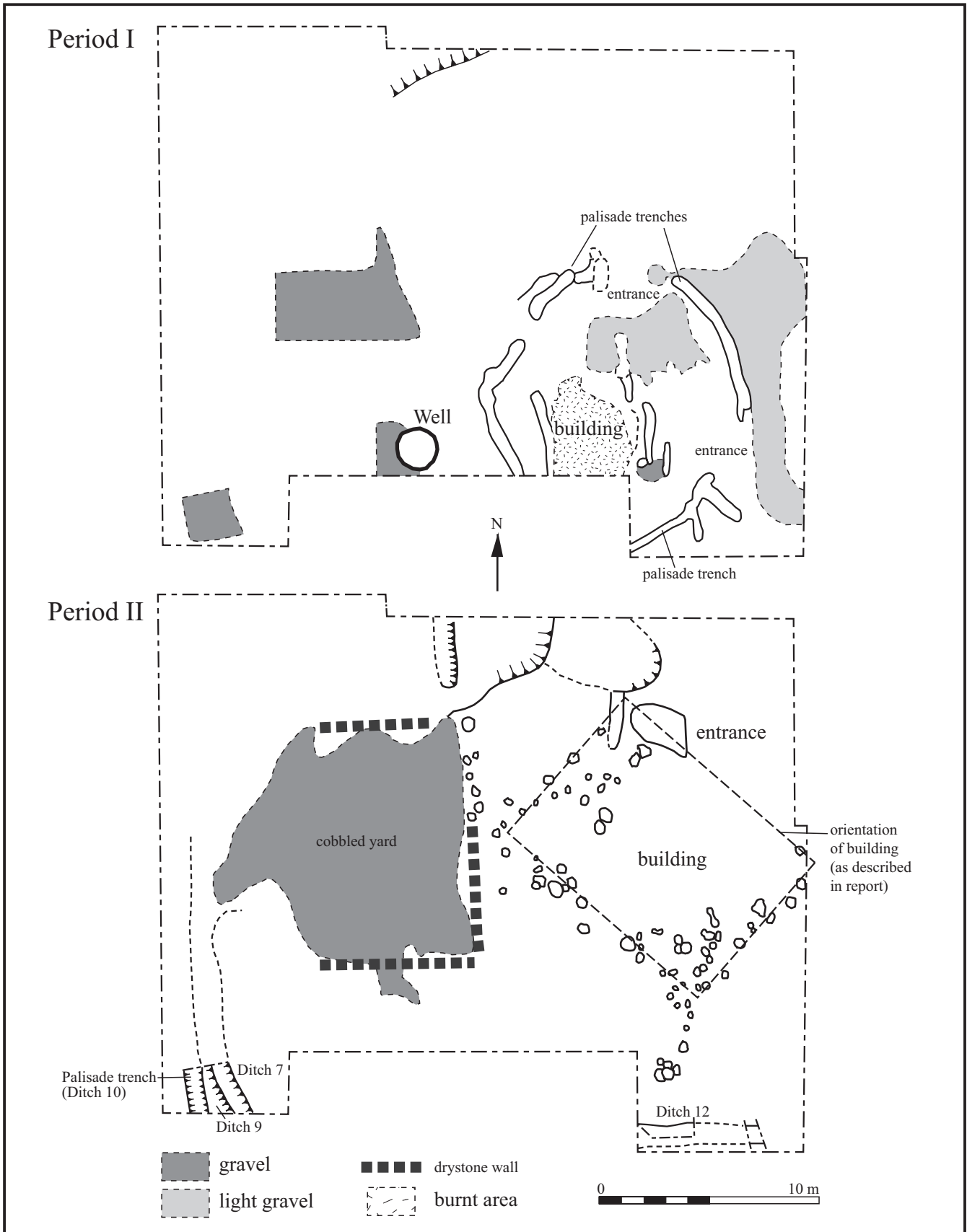


FIGURE 9: The two major phases of occupation recorded at Stafford House in 1972–4.

constructed; it lay on the eastern side of a cobbled yard, c.12m square, bounded by a drystone wall on its other sides; a wicker-lined well (Figs 9–10) may date to this phase, and a stretch of palisade ditch (Ditch 10), c.1.4m wide and c.01.6

m deep, may represent a larger enclosure surrounding the building (this was replaced by first Ditch 9, then Ditch 7).

- Phase IIa: the enclosing wall was demolished, and the cobbled yard was enlarged and resurfaced, now being defined by a substantial ditch; a north-south oriented road was traced for 110m and thought to be contemporary with this phase.

The main north to south Roman road was traced for 110 m, lying c.45m east of the old A11 (Station Road, Old Harlow). The road was made up of 0.35m of packed gravel and was defined by ditches 12m apart.

In 1975 further work at Stafford House, directed by Katherine Davison, revealed a ditch (Harlow Museum n.d.), and in 1979–80 excavations by John Chapman and Richard Bartlett revealed ditches, pits, stone-built and timber structures, and a plank-lined pit, associated with mostly 2nd to 4th-century artefacts; there was extensive evidence for iron-working, and a large amount of leather work suggestive of manufacturing; other finds included three fragments of an imported pipe-clay face mask and a statue of Mercury (TL 473 120; EHER 3611; Harlow Museum n.d.; Eddy 1980, 43; Grew 1981, 350). In 1990 a watching brief by Richard Bartlett and Wally Davey at 3–4 Priory Avenue revealed a scatter of pottery, coins, slag, and bronze off-cuts (Harlow Museum n.d.).

#### Occupation south of Stanegrove Hill (Fig. 7)

Less work has been carried out to the south of Stanegrove Hill. In 1951 ‘three or four scattered rubbish pits about 8 ft. [2.4 m] wide and 18 ft. [5.4 m] deep’ were found near Edinburgh Way ‘366 yards [335 m] SE of the temple’ (TL 469 120; EHER 3632; Hull 1963, 143). In 1990 a Romano-British occupation deposit associated with 4th-century pottery and coins was recorded at Harlow Mill, c.300m east-south-east of the temple (TL 471 122; EHER 9933). A glass paste bead has been found nearby (TL 472 125; EHER 3608).

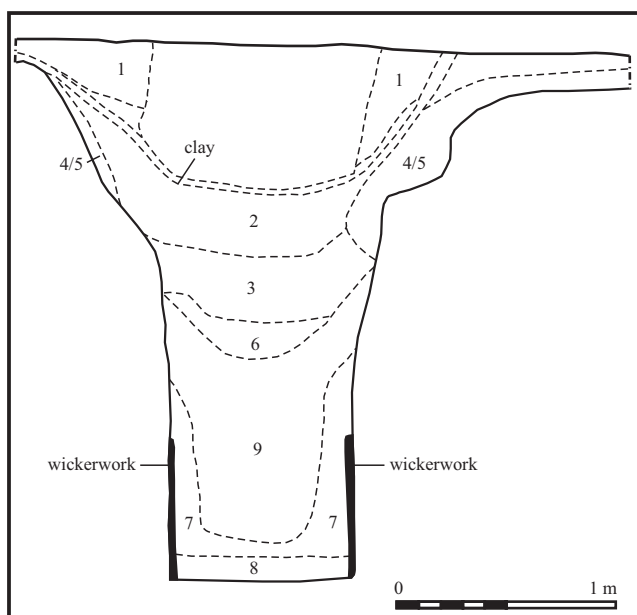


FIGURE 10: Section through well excavated at Stafford House in 1972–4.

#### Discussion: the Romano-British small town

The Roman occupation at Harlow covers c.40 ha which is comparable to or even larger than other small towns in the region (Medlycott and Atkinson 2012; Rippon forthcoming a). Domestic occupation spanned the 1st to late 4th centuries, and included both timber and stone buildings. The density of occupation at Holbrook's was high, although the buildings at Stafford House did not front directly onto the Roman road and appear to have been set within ditched paddocks: while this suggests a density of occupation that was lower than in major towns such as Colchester it should not be taken to suggest that the occupation at Harlow was rural in character, as it was quite common for buildings in smaller towns to be set within ditched compounds. Industrial activities at Harlow included pottery production, and bronze-, iron-, bone- and leather-working, all typical of smaller urban centres within this region (Rippon forthcoming a).

#### OUTLYING SITES

Various discoveries further south probably relate to isolated rural settlements in the hinterland of the small town:

1965, 247 Felmongers, Harlow New Town: a shallow mid 2nd-century pit was excavated and found to contain c.10,000 sherds of pottery (including samian dated c.AD 150–70), tesserae, painted plaster, window glass, nails, and a large amount of vessel glass (EHER3582; Price 1987; ECC 1999). This site lies c.1.4 km south of Stanegrove Hill, and c.1.1 km south of the southern edge of the small town and is probably a villa.

1971–2, Market Street, Old Harlow, c.750 m south-south-west of Stanegrove Hill: a small amount of unstratified brick and tile, including a piece of flue tile, along with a 3rd-century coin and six sherds of pottery (TL 471 115; EHER 9124; Andrews 1991, 107). In 2004, a nearby evaluation c.100m east of Market Street at Darlington's Garage on Station Road revealed no Romano-British occupation (Williams and Grant 2004).

2010, Prentice Place, c.3.5 m south of Stanegrove Hill: over- and under-fired tile (*tegulae*, *imbrex*, and flue) recovered from a charcoal-rich spread is suggestive of a nearby tile kiln (TL 47149 08661; EHER 47501; Mounce and Bradley 2010).

#### Harlowbury, North of Gilden Way (Fig. 11)

To the east of the Romano-British small town of Harlow—on another prominent hill—lies a site that has variously been called Harlowbury and ‘North of Gilden Way’ (TL 4815 1225; EHER3600). On the Tithe map of 1848 it had the very telling name of ‘Stony Field’.<sup>2</sup>

#### Early discoveries

The Romano-British settlement east of Harlowbury was discovered in 1819 when John Barnard discovered ‘foundations of walls, evidently Roman’, and in c.1831 Wright recorded ‘the remains of Roman buildings, formed of brick and flint stone’ that had been found by labourers digging a ditch three years earlier [*i.e.* c.1828] (Hull 1963, 141). R. C. Neville states that Roach Smith had ‘picked up many different coloured cubes, the fragments of a mosaic pavement’ on the land occupied by John Barnard (Neal and Cosh 2009, 141–2 citing *Essex Archaeol. Trans.* I, 99). Hull (1963, 142) notes that these

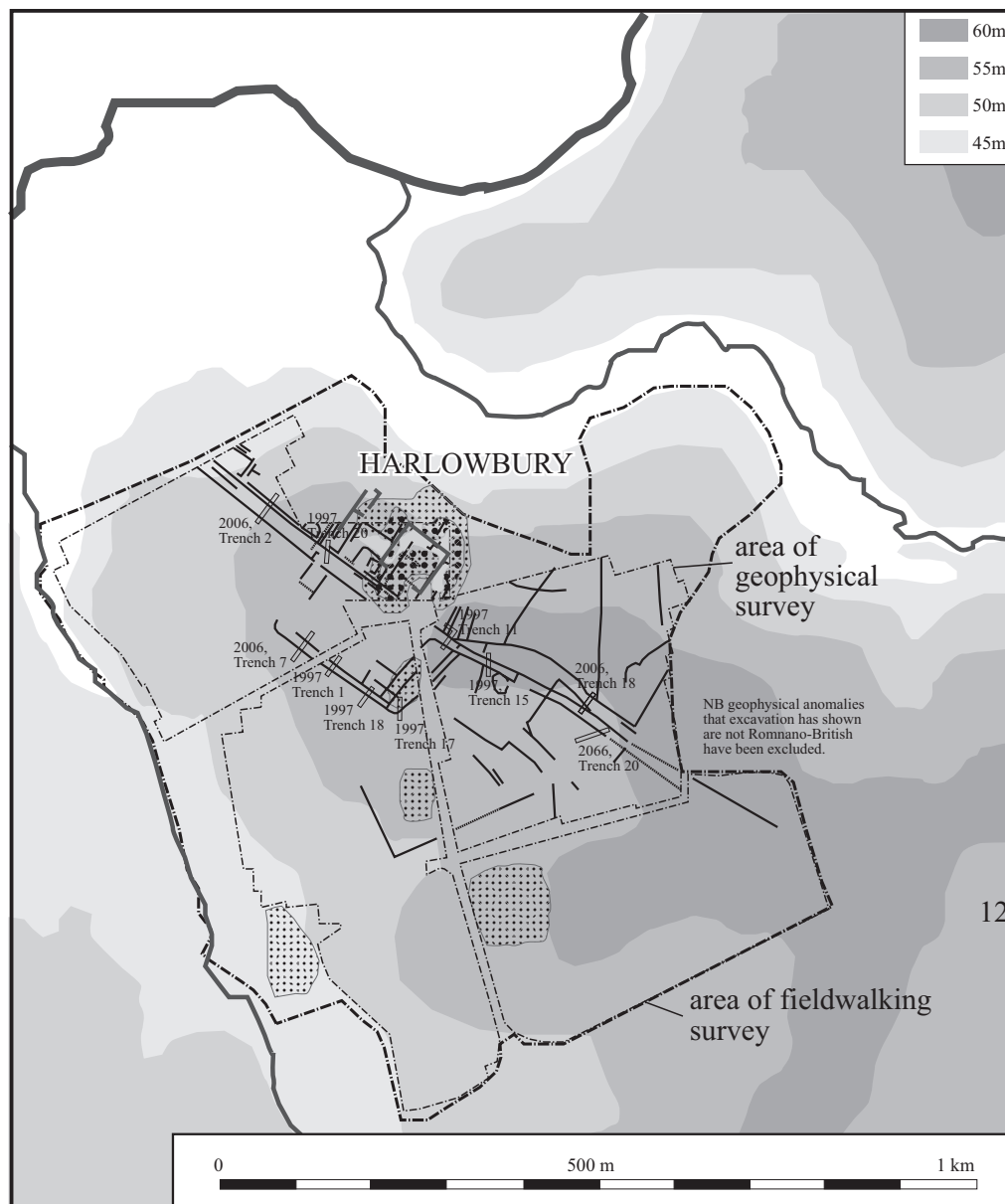


FIGURE 11: Archaeological survey on the Roman site east of Harlowbury.

discoveries could refer to the temple on Stanegrove Hill, but Neal and Cosh (2009, 144) are, however, surely correct when they suggest that it was the site at Harlowbury where John Barnard discovered evidently Roman walls in 1819 (one William Barnard occupied these fields at the time of the Harlow Tithe survey in 1848; the site at Stanegrove Hill—named as such in the Latton Tithe survey of 1839—was owned by Richard Arkwright and occupied by Thomas Pollett).<sup>3</sup>

Fieldwalking in 1990 by Richard Bartlett of Harlow Museum revealed an extensive surface scatter of Romano-British debris including large amounts of tile and pottery, along with fragments of an imported lava quern stone, while metal detecting has produced late 2nd to 3rd-century Romano-British coins (EHER 6567; Bartlett 1991, 5). The site has been interpreted as a villa (e.g. Masefield 1997a–c; Wardill 1997; Sykes 2006; Neal and Cosh 2009, 144; Dicks and Chadwick 2010, 10; Ingle and Saunders 2011, 72; Medlycott and Atkinson 2012, 80) and is scheduled SM 1014738 as such, although the possibility of a temple is discussed below. A proposed housing

development has led to a programme of archaeological survey and trial excavation adjacent to the scheduled area (Dicks and Chadwick 2010).

#### *Aerial photography*

Aerial photographs of various dates<sup>4</sup> have revealed cropmarks including a trackway (also detected in the geophysical survey: see below) and what is described as a square structure c.40m by 40m with a second rectangular building c.40 m to the west that measured c.10m by 50m (Scheduled Monument 24860): the latter is mapped by both Masefield (1997a–c) and Ingle and Saunders (1997, fig. 3.12), while the former is only plotted by Masefield (1997a–c). Based upon trial trenching in 1997 it may be that little survives of these buildings below the surface (see below).

#### *Fieldwalking* (Fig. 12)

In 1990 a fieldwalking survey was carried across the proposed c.54ha development area (Bartlett 1991). This revealed a



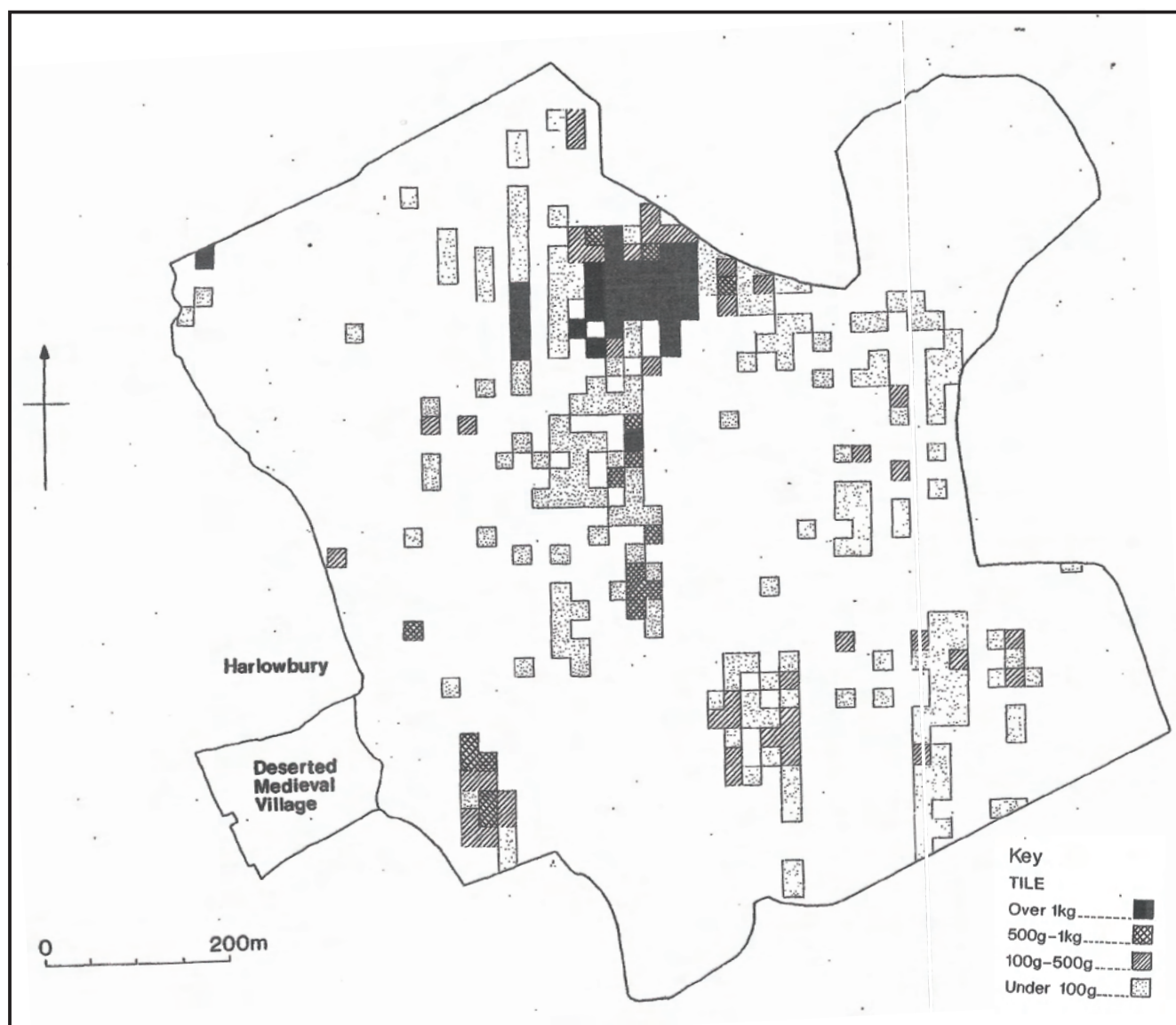


FIGURE 12: The distribution of Roman tile found during the fieldwalking survey east of Harlowbury (©Harlow Museum)

marked concentration of debris in the area of the cropmark complex including tile, tesserae, and a fragment of stone column (see below). There was just a light scatter of material across the rest of the survey area, and a small concentration of tile to the south corresponds to a rectangular enclosure revealed in the 2006 geophysical survey (see below: University of Durham 2005). Trial trenching indicates that this enclosure is medieval in date (Sykes 2006, Trench 33), suggesting that the Romano-British tile was re-used in a later context (*e.g.* a building, floor or yard surface).

#### *Geophysical Survey*

The first geophysical survey was carried out across a narrow strip of land along the southern edge of the scheduled area in 1997, while the second survey, also in 1997, covered 2.4ha to the north and corresponded to the main area of building debris found through fieldwalking (Wardill 1997). In 2005 a further 43ha was surveyed (University of Durham 2005). The combined geophysical surveys suggest that the substantial Romano-British building lay to the north of a trackway marked by two substantial roadside ditches: to the west of the

building the trackway was straight, whereas to the east it took a more sinuous line. A high resistance anomaly *c.*50m by *c.*50 m appears to correspond to the building seen on aerial photographs and the scatter of tile recorded by fieldwalking. To the south of the trackway lay a substantial double ditched enclosure with rounded corners, but as the whole of the scheduled area has not been surveyed it is impossible to say whether the enclosure ditches continued to the north of the road in order to enclose the substantial building.

#### *Evaluation trenching*

There have been two phases of evaluation trenching: twenty-one trenches in 1997 that were concentrated in the area of the cropmark complex, fieldwalking scatter, and 1997 geophysical survey (Masefield 1997 a–c), and a further thirty-six trenches to the south spread across the area subject to geophysical survey in 2006 (Sykes 2006). In 1997, Trenches 1 (Masefield 1997a) and 18 (Masefield 1997c) sectioned the two parallel ditches that mark the southern side of the enclosure to the south of the trackway: both ditches dated to the Late Roman period and contained Roman roofing and hypocaust tile along

with a few sherds of 'Early Saxon'<sup>5</sup> pottery suggesting that they were still open during the 5th to 7th centuries. The ditches had the same dimensions and profile, and would appear to have been contemporary: although interpreted as a trackway (Masefield 1997a, b) there was no trace of a gravelled/metalled surface and the geophysics suggests that they actually form the southern side of an enclosure with rounded corners. Trench 2 sectioned the two parallel ditches of the straight trackway west of the substantial Romano-British building: both ditches contained Late Roman material from their lower fills but c.5th to 7th-century pottery from their upper fills (Masefield 1997a). Trenches 11 and 15 sectioned the trackway to the east of the substantial building, where it also produced Late Roman and early medieval (c.5th to 7th century) pottery (Masefield 1997c; for trenching in 2006 further east, that suggests an earlier origin, see below).

In 2006, Trench 2 sectioned the trackway to the west of the substantial Romano-British building, whose roadside ditches contained late Roman pottery and a sickle. In contrast, Trenches 18 and 20 sectioned the more sinuous trackway to the east of the substantial building (c.225 m east of the 1997 Trench 11), and here it appears to date to the Late Iron Age or Early Roman period. Trench 7 sectioned the two parallel ditches that mark the southern side of the enclosure to the south of the trackway (that in 1997 was sectioned in Trenches 1 and 18), confirming a Late Roman date; finds include smithing slag (Sykes 2006, 22). Trench 33 sectioned the isolated rectangular enclosure to the south of the main complex that produced a light scatter of Romano-British tile, although the excavation suggested a medieval date (see above).

### ***The Harlowbury Column Fragment***

A particularly important find during the fieldwalking was a large fragment of limestone column (Bartlett 1991, 5). A typescript report in Harlow Museum describes it as having been made from a fine, white Jurassic oolitic limestone, 'probably from the West Country, and possibly Portland', and as having an unfluted circular surface that has been worked to a very high-quality finish which is at an angle of 5 degrees from the vertical. The Harlow Museum report suggests that 'using the B:1 height to diameter ratio that seems to apply to most larger columns recovered in Britain and is common in other parts of the Empire, gives a height of 4 metres'. The column fragment is preserved at Harlow Museum and measures 0.49m across (suggesting a diameter of c.0.5m as not quite half survives), and 0.16m thick: it does indeed have a very fine polished surface with no evidence for fluting.

### ***Petrological report on the Harlowbury column fragment*** by Dr Kevin Hayward

The petrological character of the large Roman limestone column fragment was analysed to ascertain whether or not it was possible to identify its geological character and assign it a geological source. A tiny fragment was prepared for comparative thin-section analysis, in order to determine whether or not the suggested Portland source can be verified. A successful match would for the first time suggest that Portland stone was being supplied from Dorset during the Roman period to areas of south-east Britain devoid of suitable high quality building stone or freestone, which would be at least 1,500 years before the stone had gained national and global

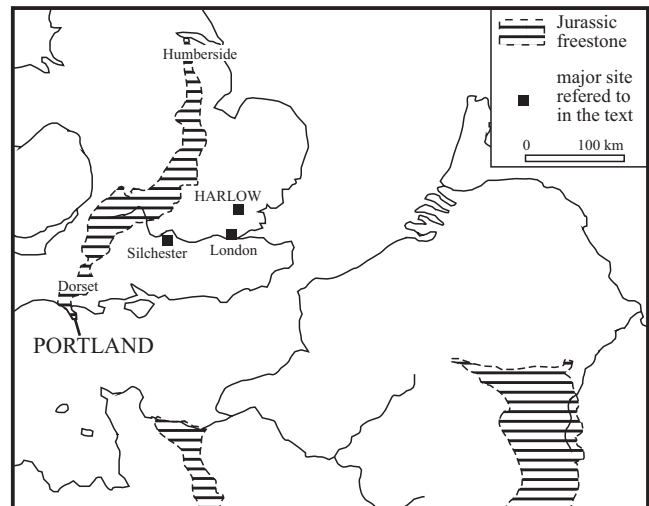


FIGURE 13: The outcrops of Jurassic freestone in north-western Europe (©Kevin Hayward)

reputation as a highly sought after material ideally suited to architectural embellishment and funerary stone type from the 17th century (Hackman 2014).

### **Geological background**

The underlying geology of this part of south-east England is devoid of stone suitable for fine or intricate carving, termed by masons as freestone (a limestone with a fine, even-grained open porous texture often composed of small round carbonate grains called ooids, which enable the rock to be worked or carved in any direction, take inscription, and yet be hard enough to withstand external weathering: Leary 1989; Stanier 2000; Sutherland 2003). The underlying bedrock is instead either composed of soft, poorly consolidated mudstones and sands from the Tertiary or soft pure carbonates of Upper Cretaceous Chalk, together with bands of hard siliceous flint. The nearest principal exposures of freestone outcrop along the 200km long north-east to south-west trending Middle to Upper Jurassic scarp face running from Humberside down to the Dorset coast at Purbeck and the Isle of Portland, before reappearing on the northern French coast at Caen and encircling the Paris Basin. It follows then that in a province without a pre-existing tradition of working these materials, there are any number of potential source rocks that an example of worked freestone from a centre in south-east *Britannia* could have come from (Fig. 13). Fortunately, London and settlements such as Harlowbury are accessible to these different outcrops with excellent riverine and maritime links afforded to them by the River Thames and its estuary.

### **Methodology**

The macroscopic character of the column fragment was examined at Harlow Museum in December 2015 using a hand lens (Gowland x10). A small weathered flake was taken away and underwent further visual analysis using a long arm stereomicroscope and the texture, colour (Munsell Color Group 1980), and inclusions recorded. Treatment of dilute Hydrochloric acid determined whether the rock had a calcareous composition or not.

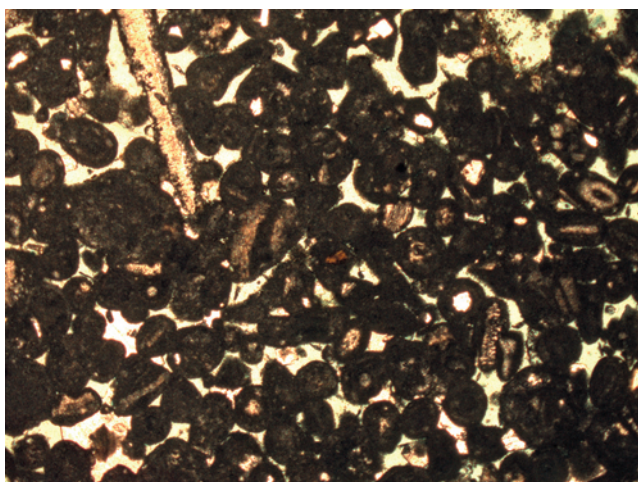


FIGURE 14: Photomicrograph of a sample taken from the Harlowbury column (©Kevin Hayward).

A 20mm long  $\times$  15mm thick sub-sample was selected, for thin-section analysis. Although destructive, this method ensured that the maximum amount of information could be obtained from the smallest possible sample size.

The procedural implications and sample preparation can be referred to in Hayward (2009). The sample was additionally embedded in coloured araldite resin (CY1301) which was necessary for two reasons. First, the process of embedding with the addition of a hardener (HY951) strengthens soft mortar samples, and second, the addition of a green colouring agent (BW1034) during this process highlighted the pore spaces in the sample enabling the overall porosity to be determined. Staining is a necessary process (Adams and Mackenzie 1998) during the production of the more lime rich thin sections as it picks out the variability in colour between ferroan and non-ferroan calcite as well as dolomite, with the addition of Alizarin Red C and Potassium Hexocynoferrate.

This high resolution petrographic approach enabled a 30-micron thick slice of stone to be viewed under the polarising microscope at magnifications greater than  $\times$  400 (Leica DMLP). Thin sections can help distinguish between different types of calcite grains, minerals, cements, and microfossils. Finally, a series of photomicrographs of the column fragment, as well as comparative archaeological and geological samples, were produced using a Leica DFC 320 Digital Camera (Figs 14 and 15). Consultation of a reference database of over 100 freestone outcrop hand specimen and thin-section samples (Hayward 2006; 2009) of freestone ensured a good chance of a successful match.

#### Geological character and source

In hand specimen, the limestone used to carve the column can be described as a hard-pale cream-grey to white (2.5Y 8/1) fine oolitic Grainstone (Dunham 1962). In detail, the rock almost entirely consists of very fine 0.3mm size round carbonate grounds called ooids that are tightly packed. Fossils are almost entirely absent, apart from very occasional small grey oyster fragments. At a higher magnification (Gowland  $\times$ 10) these ooids are not so tightly packed, with numerous small voids suggesting that in fact the rock has a high overall porosity. The rock made a distinctive ringing sound when it was tapped by a small metal object. The thin-section (Fig. 14) shows greater

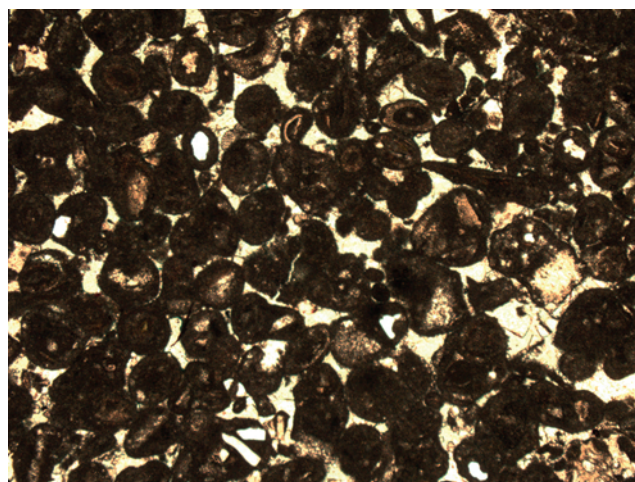


FIGURE 15: Comparative photomicrograph of an outcrop of Portland Whit Bed KH82 showing a near identical petrological match with the Harlowbury column (©Kevin Hayward).

petrological detail and that the stone can be described as an oosparite (Folk 1959; 1962) characterised by numerous small 0.2–0.3mm irregular-shaped poorly coated grains or ooids, often with an angular quartz nucleus and a prominent open porosity picked out in green. Large oyster fragments are also visible.

The geological source is identified as Portland Whit Bed (Portland Freestone Member) of the Upper Jurassic Portlandian Formation (138–135 million years; Cope *et al.* 1980) as outcrops at the Tout Quarry on the Isle of Portland (SY 685726) (Explorer 15, BGS Map 341). A photomicrograph taken of an outcrop sample (Fig. 15) illustrates an almost identical size and shape of small irregularly formed ooids, with a quartz nucleus and open textured porosity up to 23.1% (Leary, 1989), which gives the rock a distinctive ring when hammered. It lacks the more packed, compressed texture and coarse calcite cement of Painswick stone (Middle Jurassic—Aalenian) from Painswick Hill /Nailsworth Gloucestershire, another oolitic limestone worked during the Roman period (Hayward 2006; 2009; 2015) with which it has in the past frequently been mistaken for.

#### Conclusions

Hand and thin-section comparative analysis of a stone sample taken from the column fragment shows that the limestone shares a near identical petrological match with Portland stone, specifically Portland Whit Bed (Portland Freestone Member) from the Upper Jurassic of the Isle of Portland in Dorset. This finding is of great significance. Excluding Dorset<sup>6</sup>, it is the first time that a worked limestone sourced to the Isle of Portland has been identified in thin section from a Roman context in south-east/central Britain. No examples were identified either in petrological samples from recent studies of late 1st to early 2nd-century tombstones and architectural fragments in south-east Britain (Hayward 2006; 2009) or in later Roman sculpture from this region (Hayward 2015). Furthermore, existing hand specimen identification of Portland stone used in the Tutlery and Serapis statuary from Silchester (Boon 1973) must be called into question as the rock was found to be far more comparable to Painswick stone (Aalenian) from Gloucestershire when examined by this researcher.

It would have made economic and practical sense to quarry, supply and carve blocks of Portland stone during the Roman period as it was a fine grained and durable material that could be quarried into large blocks (Leary 1989). The economic advantages bestowed on it by its maritime locality would have allowed these freestone blocks to be easily distributed throughout southern Britannia. In the case of the Harlowbury example, shipment around the south-east coast, up to the Thames Estuary, including off-loading on to a barge then up the River Lea and thence the Stort, would have been straightforward. Other stone types along the Dorset coast were exploited and transported around the Roman province including Kimmeridge shale (Sunter 1987; Allen & Fulford, 2004) and Purbeck marble (Dunning, 1949; Beavis, 1970; Sunter 1987).

#### *Interpretation of the Harlowbury site*

Although a scatter of Neolithic, Bronze Age, and Iron Age material and features have been found during the fieldwalking and extensive trial trenching at Harlowbury, there is nothing to suggest anything other than intermittent occupation. While Early Roman pottery and coins have been recovered, the character of the occupation at that date is unclear, although the sinuous trackway to the east of the site may be of that period. The main concentration of material appears to date to the Late Roman period. Whilst widely interpreted as a villa, there are two other possible interpretations: a temple, and an extension of the small town whose focus lay *c.*1km to the west. The possibility that this was part of the small town can, however, probably be dismissed. While any timber structures will not show up on either as cropmarks or on the geophysical survey, fieldwalking suggests that there was just a single, substantial, but isolated building complex at Harlowbury. To the west of the stone building complex the geophysical survey does show various ditched plots to the north and to the south of the road, although these do not obviously form a pattern of urban tenements.

The masonry walls, roof tile, and tesserae are all compatible with the site having been a villa or a temple (the Harlow temple also having a tessellated floor). The quern stone fragments recovered from fieldwalking, the sickle found in the roadside ditch west of the main building (2006 Trench 2), and 'iron slag' from the southern enclosure ditches (2006 Trench 7), are suggestive of domestic occupation (although this may have clustered around a temple). The cropmark and high resistance anomaly is roughly the same size as the temple at Stanegrove Hill, but also the courtyard villa at Chignall St James. Whilst the hypocaust tile is more suggestive of a domestic structure, this could have come from an adjacent building such as that recorded through aerial photography to the west of the main structure. The long, very straight stretch of road to the west of the substantial Roman building contrasts with its more sinuous course to the east, and is suggestive of landscape planning on a monumental scale.

The confirmation that the column fragment is indeed made of Portland Stone makes it potentially very important due to the rarity of Portland Stone from Roman contexts outside Dorset. Bearing this in mind, however, it must be remembered that it was found through fieldwalking (i.e. was unstratified) and so the possibility that it is post-Roman cannot be ruled out. In support of a Roman date is the very worn nature of

the column fragment—it looks like it has been bashed about in the plough soil for many years, with very worn edges—and the absence of any other evidence in the fieldwalking report for post-Roman material having been found. The site does, however, lie close to the Gibberd Garden, created by Sir Frederick Gibberd (master planner for Harlow New Town) between 1955 and 1984. Sir Frederick and Lady Gibberd bought or commissioned ninety sculptures for their garden. Of these, the majority are made from metal, wood, concrete, or ceramic, although there are five pieces made from Portland Stone. Of these, three ('City Landscape', 'Silent Growth', and 'The Baptistry' are carved from machine-cut blocks, while 'Tingle in the Backbone' is a pile of Welsh alabaster stones placed upon an un-worked Portland Stone boulder. The fifth item, 'Columns', comprises two columns from Coutts Bank on The Strand but these are clearly unrelated to the Harlowbury fragment as they are fluted and complete (there are no bits missing that could account for the Harlowbury fragment). The hard landscaping around the garden reveals no use of Portland Stone (being made of brick, concrete, glass, and flint nodules), and Stan Newens of the Gibberd Garden Trust reports that they have no record of the Harlowbury column fragment having come from the garden. Overall, the very worn nature of the Harlowbury column fragment, the context of its discovery (a controlled fieldwalking survey), and the absence of any potentially related material in the Gibberd Garden all suggests that it is indeed Roman.

If the Portland Stone column is indeed Roman then it would be far larger than the columns associated with porticos sometimes found around the fronts of villas, and therefore suggests the presence of a more substantial building. It is worth noting that another particularly fine piece of sculpture is said to have been found nearby at Spellbrook, just south of Bishop's Stortford in Hertfordshire. This is possibly from the tombstone of a soldier, dating perhaps to the 1st or 2nd centuries AD, although 'how it came to be lost in an area where Roman finds—let alone military finds—are otherwise sparse, at present remains a mystery' (Combe *et al.* 2015). Overall, while the site at Harlowbury does not appear to have been part of the main settlement at Harlow and may simply have been a villa, there are various strands of evidence that point to a monumental structure, perhaps another temple.

#### **CONCLUSIONS**

The extensive Romano-British settlement at Harlow has been widely interpreted as a small town, associated with the long-lived Late Iron Age and Romano-Celtic temple on Stanegrove Hill (that appears to have built *c.*AD 80 and remained in use through to the 4th century). Burnham and Wachter (1990, 183–8) interpret Harlow as a 'specialised site' that developed to support a religious complex, other examples of such settlements being Bath, Buxton, Frilford, Nettleton, Springhead, and Wycomb. This interpretation would be strengthened if the complex at Holbrook's was indeed a temple, and even more so if there was a third temple at Harlowbury.

The extensive Romano-British settlement at Harlow developed around an important Late Iron Age place evidenced by the very large number of coins deposited there. It lay just to the south of an important river crossing and appears to have covered *c.*40 ha, making it far larger than local centres such as Wixoe (18ha), Bishop's Stortford (16ha),

Braintree (12ha), Chigwell (12ha), and Kelvedon (10ha), and roadside settlements such as Coggeshall, Great Dunmow, Leaden Roding, Little Waltham, Romford, and Welwyn (all c.6–8ha) (Rippon forthcoming a). The size of a settlement cannot be taken as a direct indication of its status—Billericay, for example, covers c.27 ha but has a relatively low density of occupation and many rural characteristics—but it is nevertheless very noticeable that the settlement at Harlow is larger than the small towns at Braughing and Chelmsford (both c.25ha). Occupation extended from the 1st through to the 4th centuries and included extensive bronze and iron working, and possibly bone and leather working and pottery production. The thirty-seven lead weights from Holbrook's suggest considerable commercial activity. There is evidence for several substantial buildings including a complete tessellated pavement found in 1935–6 at Gould's Timber Yard, roof and flue tile from River Way, and the enigmatic stone building with a tessellated floor and ash-filled flue at Holbrook's. At Holbrook's the buildings appear to have been densely packed alongside gravelled streets in an urban fashion, whereas at Stafford House—the southern fringes of the settlement—they appear to have been more widely spaced within their own paddocks.

Understanding the nature of the site at Holbrook's remains fundamental to interpreting Harlow as a whole, but this is far from easy. The artefactual assemblage certainly includes clear evidence for both manufacturing and votive objects, although there is no structural evidence for a temple or ritual deposition as all of the votive objects were found in secondary contexts. Reference to the masonry structure having a 'black ash-filled flue' is suggestive of a residential or industrial function, although this does not preclude there having been an earlier temple. There is no evidence that the large number of Iron Age coins and 1st-century AD brooches were being made at Holbrook's, suggesting that this was a location of deposition not manufacturing. Overall, the interpretation favoured here is that there was a Late Iron Age and very Early Roman ritual site at Holbrook's but that the site went over to domestic use in the later Roman period. The nature of the site at Harlowbury also remains unclear. Its size and shape could be accounted for by a small courtyard villa, although the character of the trackway that approaches it from the west and the column fragment—if it is Roman—is suggestive of a very high-status building.

The significance of the temple on Stanegrove Hill has recently been discussed by Black (2015). He carried out a comparative analysis of a series of Romano-British ritual sites in and around Essex suggesting that the temple complex at Gosbecks was a tribal sanctuary that could accommodate 484 worshipers. This compares to Great Chesterford that could accommodate 273 people, and which might have served one of the districts (*pagus*) into which *civitates* are thought to have been divided. Stanegrove Hill, in contrast, could accommodate just forty-four worshipers, although this was a far higher figure than the shrines within the small towns of Chelmsford (twelve) and Heybridge (twelve to twenty-one) and which may have served no more than those settlements. A complication with this analysis, however, is that while some of these temples were central places wholly within a socio-political region—such as Gosbecks that lay just outside the Trinovantian *civitas* capital—others, including Harlow, appear to have lain on what had been pre-Roman boundaries. The Lea/Stort

valley, and the high ground to the east, appear to have been a significant boundary between communities with separate identities for some time: Isobel Thompson (2015, 64), for example, identifies it as the boundary between two of the style zones that have been recognised in the Late Iron Age 'Belgic' pottery, and they also mark the eastern limit of the region in which Catuvellaunian coinage was dominant (see above).

Overall, there was clearly an important ritual centre at Harlow from the Late Iron Age through to the Roman period. The analysis of Iron Age coin distributions suggests that the site lay close to the boundary between the Catuvellauni and the Trinovantes, and the large number of coins of Tasciovanus suggests that it was a Catuvellaunian centre. There was at least one temple (Stanegrove Hill) and potentially two others (Holbrook's and Harlowbury). Such clusters of temples are known elsewhere in Roman Britain, such as the Sheepen complex outside Colchester (Gascoyne and Radford 2013, 146–7), Friar's Wash near Verulamium (Birbeck 2009; West 2015), and Springhead near Swanscombe in northern Kent (Andrews *et al.* 2011). It is well known that other temple complexes appear to have marked boundary locations, such as Brigstock, Frilford, Thornborough, and Woodeaton, and Harlow can be added to this list.

#### ENDNOTES

- 1 **Authors:** Professor Stephen Rippon, FSA, Archaeology Department, University of Exeter; Dr Kevin Hayward, FSA, Building Materials Specialist, Pre-Construct Archaeology Limited
- 2 Essex Record Office D/CT 164a.
- 3 Essex Record Office D/CT 208a.
- 4 *E.g.* NMR RAF 58/30: Part II 17–5–48: F10"/6,400, TOPO; NMR RAF 58/62: 19.7.48: F10"/5400 TOPO; NMR ZEISS 12" 049 7200' 4th May 1971; NMR PHOTOARC 90–39 River Stort 29.3.90 29683–020.
- 5 This author is concerned that handmade, undecorated pottery from this period is called 'Anglo-Saxon' as these simple globular vessels could have been made and used by native British communities who no longer had access to mass-produced pottery in a Roman style (Rippon forthcoming a; b).
- 6 Examples from Dorset made from Portland stone include a sarcophagus from Poundbury (Farwell *et al.* 1993), architectural fragments from Dewlish Roman villa (Hayward pers. obs.) and an early military tombstone from Dorchester (Hayward pers. obs.).

#### ACKNOWLEDGEMENTS

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## BIBLIOGRAPHY

- Adams, A. E. and MacKenzie, W. E. 1998, *A Colour Atlas of Carbonate Sediments and Rocks under the Microscope* (London)
- Alcock, S. 1996, *Graecia Capta: The Landscapes of Ancient Greece* (Cambridge)
- Allen, D. F. 1944, 'The Belgic dynasties of Britain and their coins', *Archaeologia* 90, 1–46
- Allen, D. F. 1965, 'Celtic coins from the Romano-British temple at Harlow, Essex', *Brit. Numis. J.* 33, 1–6
- Allen, D. F. 1968, 'Celtic coins from the Romano-British temple at Harlow', *Brit. Numis. J.* 36, 1–7
- Allen, D. F. 1969, 'Celtic coins from the Romano-British temple at Harlow', *Brit. Numis. J.* 37, 1–6
- Allen, J. R. L. & Fulford, M. G. 2004, 'Early Roman mosaic materials in southern Britain with particular reference to Silchester (*Calleva Atrebatum*): a regional geological perspective', *Britannia* 35, 9–38
- Andrews, D. 1991, 'An archaeological sequence at the edge of Old Harlow marketplace', *Essex Archaeol. Hist.*, 3rd Ser., 22, 101–14
- Andrews, P., Biddulph, E., Hardy, A. and Brown, R. 2011, *Settling the Ebbsfleet Valley. High Speed 1 Excavations at Springhead and Northfleet, Kent. The Late Iron Age, Roman, Saxon, and Medieval Landscape* (Oxford and Salisbury)
- Atkinson, M. and Preston, S. 2015a, *Heybridge, a Late Iron Age and Roman Settlement: Excavations at Elms Farm 1993–5 Volume 1*, E. Anglian Archaeol. 154
- Atkinson, M. and Preston, S. J. 2015b, *Heybridge, a Late Iron Age and Roman settlement: excavations at Elms Farm 1993–5. Volume 2*, Internet Archaeology 40. Available <http://dx.doi.org/10.11141/ia.40.1> (accessed 8 August 2017)
- Bartlett, R. 1988a, 'The Harlow celtic temple', *Current Archaeol.* 112, 163–6
- Bartlett, R. W. 1988b, 'A Late Roman buckle from Harlow temple, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 18, 115–20
- Bartlett, R. 1991, *The Archaeology of Gilden Way: An Assessment of the Fieldwalking Survey* [unpubl. report, copy supplied by Essex HER]
- Beavis, J. 1970, 'Some aspects of the use of Purbeck Marble in Roman Britain', *Proc. Dorset Nat. Hist. Archaeol. Soc.* 91, 181–204
- Birbeck, V. 2009, *Friars Wash, Redbourn, Hertfordshire: Archaeological Evaluation and Assessment of Results*, Wessex Archaeology unpubl. report 68735.01. Available <doi: 10.5284/1021923> (accessed 11 August 2017)
- Black, E. W. 1995, *Cursus Publicus: The Infrastructure of Government in Roman Britain*, Brit. Archaeol. Rep., Brit. Ser., 241 (Oxford)
- Black, E. 2015, 'A survey of selected Late Iron Age and Roman sacred sites in eastern England, with particular reference to Essex', *Essex Archaeol. Hist.*, 4th Ser., 6, 106–63
- Boon, G. C. 1973, 'Serapsis and Tutela. A Silchester co-incidence', *Britannia* 4, 107–114
- Bradley, R. 2000, *The Archaeology of Natural Places* (London)
- Bradley, R. 2007, *The Prehistory of Britain and Ireland* (Cambridge)
- Branigan, K. 1987, *The Catuvellauni* (Gloucester, Alan Sutton)
- Braund, D. 1988, 'Introduction: the growth of the Roman Empire 241 BC–AD 193', in Braund, D. (ed.), *The Administration of the Roman Empire 241 BC–AD 193* (Exeter), 1–14
- Braund, D. 1996, *Ruling Roman Britain* (London)
- Bray, S. and Malim, T. 1998, *Romano-British Temple and Anglo-Saxon Cemetery at Gallow Hill, Swaffham Prior*, Cambridgeshire County Council Field Archaeology Unit unpubl. report. Available <doi: 10.5284/1021762> (accessed 8 August 2017)
- Burleigh, G. 2015, 'Burials, ditches and deities: defining the boundaries of Iron Age and Romano-British Baldock', in Lockyear, K. (ed.) *Archaeology in Hertfordshire: Recent Research* (Hatfield), 88–116
- Burleigh, G. and Megaw, V. 2007, 'The Iron Age mirror burial at Pegsdon, Shillington, Bedfordshire: an interim account', *Antiq. J.* 87, 109–40
- Burnham, B. C. and Wachter, J. 1990, *The 'Small Towns' of Roman Britain* (London)
- Burnham, B. C., Hunter, F., Booth, P., Worrell, S., Hassall, M. W. C. and Tomlin, R. S. O. 2007, 'Roman Britain in 2006', *Britannia* 38, 241–365
- Conlon, R. F. B. 1973, 'Holbrook's – an Iron Age and Romano-British Settlement', *Essex J.* 8, No. 2, 30–50
- Cooke, N., Brown, F. and Phillpotts, C. 2008, *From Hunter Gatherers to Huntsmen: A History of the Stansted Landscape*, Framework Archaeology Monogr. 2 (Oxford and Salisbury)
- Coombe, P. C., Grew, E., Hayward, K. M. J. and Henig, M. 2015, *Corpus Signorum Imperii Romani. Great Britain 1.10 Roman Sculpture from London and the South-East* (Oxford, Oxford Univ. Press)
- Cooper, A. 2016, 'Harlow Roman temple digitisation project', *Essex Society for Archaeology and History Newsletter* Winter 2016, 8–18
- Cope, J. C. W., Duff, K. L., Parsons, C. L., Torrens, H. S., Wimbledon, W. A. and Wright, J. K. 1980, *A Correlation of Jurassic Rocks in the British Isles. Part Two: Middle and Upper Jurassic*, Special Report of the Geological Society of London, No. 15 (Oxford)
- Creighton, J. 2000, *Coins and Power in Late Iron Age Britain* (Cambridge)
- Curteis, M. 1996, 'An analysis of the circulation pattern of Iron Age coins from Northamptonshire', *Britannia* 27, 17–42
- Curteis, M. 2006, 'Coinage and territoriality in Iron Age Essex and Suffolk', *Essex Archaeol. Hist.*, 3rd Ser., 37, 1–13
- Curteis, M. 2015, 'Harlow Roman temple and other Essex temples: a numismatic study', *Essex Archaeol. Hist.*, 4th Ser., 6, 164–88
- Dale, R., Maynard, D. and Compton, J. 2005, 'Archaeology on the mid-Essex clay. Investigations on the A130 by-pass: A12 Chelmsford by-pass to the A127 Southend Arterial Road, 1991–4 and 1999–2002', *Essex Archaeol. Hist.*, 3rd Ser., 36, 10–54
- De Polignac, F. 1995, *Cults, Territory, and the Origins of Greek City-State* (Chicago)
- Dicks, S. and Chadwick, P. 2010, *Heritage Assessment. Land off Gilden Way, Harlow, Essex*, CgMS Limited unpubl. report (London). Available <doi: 10.5284/1021852> (Accessed 10 August 2017)
- Dunham, R. J. 1962 'Classification of carbonate rocks according to depositional texture', in Ham, W. E. (ed.) *Classification of Carbonate Rocks*, American Association of Petroleum Geologists, Memoir 1 (Tulsa, American Association of Petroleum Geologists), 108–121
- Dunning, G. C. 1949 'The Purbeck Marble industry in the Roman period', *Archaeol. Newsletter* 1 (11), 15
- Dyson, A. 2015, *Land at Vinter House, River Way, Harlow: Archaeological Evaluation*, Archaeology South East unpubl. report 2015157 (copy supplied by Essex HER)
- ECC 1999, *Harlow: Historic Town Project Assessment Report* (Chelmsford: Essex County Council Heritage Conservation Group).
- Eddy, M. R. (ed.) 1979, 'Excavations in Essex, 1978', *Essex Archaeol. Hist.*, 3rd Ser., 11, 101–10
- Eddy, M. R. (ed.) 1980, 'Excavations in Essex, 1979', *Essex Archaeol. Hist.*, 3rd Ser., 12, 39–50
- Eddy, M. R. (ed.) 1981, 'Excavations in Essex, 1980', *Essex Archaeol. Hist.*, 3rd Ser., 13, 48–62
- Ennis, T. 2006, 'Roman and medieval land-use in the upper Roding valley: excavations at Frogs Hall Borrow Pit, Takeley 2002', *Essex Archaeol. Hist.*, 3rd Ser., 37, 24–95
- Fitzpatrick, A. 1985, 'The Celtic coins', in France, N. E. and Gobel, B. M. 1985, 49–66
- Folk, R. L. 1959, 'Practical petrographic classification of limestones', *Bulletin of the American Association of Petroleum Geologists*, 43, 1–38
- Folk, R. L. 1962, 'Spectral subdivision of limestone types', in Ham, W. E. (ed.) *Classification of Carbonate Rocks*. American Association of Petroleum Geologists, Memoir 1 (Tulsa, American Association of Petroleum Geologists), 62–84
- France, N. E. and Gobel, B. M. 1985, *The Romano-British Temple at Harlow, Essex* (Gloucester)
- Fulford, M. 2006, 'Corvées and civitates', in Wilson, R. J. A. (ed.) *Romanitas: Essays on Roman Archaeology in Honour of Shepherd Frere on the Occasion of His Ninetieth Birthday* (Oxford), 65–71
- Fulford, M. 2015, 'The towns of South-East England', in Fulford, M. and Holbrook, N. (eds) *The Towns of Roman Britain: The Contribution of Commercial Archaeology Since 1990*, Britannia Monogr. 27 (London, Society for Promotion of Roman Studies), 59–89
- Gascoyne, A. and Radford, D. 2013, *Colchester: Fortress of the War God. An Archaeological Assessment* (Oxford)
- Germany, M. 2010, *Priors Green, Takeley, Essex. Phase 3 Mitigation for Area C/E*, Essex County Council Field Archaeology Unit unpubl. report 2024. Available <doi: 10.5284/1009381> (Accessed 8 August 2017)

- Gerrard, J. 2013, *The Ruin of Britain: An Archaeological Perspective* (Cambridge)
- Gilman, P. J. (ed.) 1990, 'Excavations in Essex 1989', *Essex Archaeol. Hist.*, 3rd Ser., 21, 126–39
- Green, C. W. 1965, 'A Romano-Celtic temple at Bourton Grounds, Buckingham', *Recs of Buckingham* 17(5), 356–66
- Grew, F. O. 1981, 'Roman Britain in 1980: Sites Explored', *Britannia* 12, 313–68
- Hackman, G. 2014, *Stone to Build London: Portland's Legacy* (Monkton Farleigh)
- Harlow Museum nd: Typescript Notes on Each of the Excavations at Priory Avenue/Stafford House [copy supplied by Harlow Museum].
- Haselgrove, C. C. 1989, 'Iron Age coin deposition at Harlow temple, Essex', *Oxford J. Archaeol.* 8, 73–88
- Haselgrove, C. C. 2005, 'A trio of temples: a reassessment of Iron Age coin deposition at Hayling Island, Harlow and Wanborough', in Haselgrove, C. C. and Wigg-Wolf, D. (eds), *Iron Age Coinage and Ritual Practices*, Studien zu Fundmünzen der Antike 20 (Mainz), 381–418
- Havis, R. and Brooks, H. 2004, *Excavations at Stansted Airport 1986–91, Volume 2*. E. Anglian Archaeol. 107
- Hawkes, C. F. C. and Hull, M. R. 1947 *Camulodunum: First Report on the Excavations at Colchester 1930–39*, Soc. Antiq. Res. Rep. 14 (London)
- Hayward, K. M. J. 2006, *The Early Development of the Roman Freestone Industry in South-Central England. A Geological Characterisation Study of Roman Funerary Monuments and Monumental Architecture* (unpubl. PhD thesis, Univ. of Reading)
- Hayward, K. M. J. 2009 *Roman Quarrying and Stone Supply on the Periphery—Southern England. A Geological Study of First Century Funerary Monuments and Monumental Architecture*, Brit. Archaeol. Rep., Brit. Ser., 500 (Oxford)
- Hayward, K. M. J. 2015 'Types and sources of stone', in Coombe, P. C., Grew, F., Hayward, K. M. J. and Henig, M. *Corpus Signorum Imperii Romani. Great Britain 1.10 Roman Sculpture from London and the South-East*. (Oxford), xxxiv–xlvi
- Hodder, I. 1972, 'Locational models in the study of Romano-British settlement', in Clarke, D. L. (ed.) *Models in Archaeology* (London), 887–909
- Hodder, I. 1975, 'The spatial distribution of Romano-British small towns', in Rodwell, W. and Rowley, T. (eds), *Small Towns of Roman Britain*, Brit. Archaeol. Rep., Brit. Ser., 15 (Oxford), 67–74
- Hull, M. R. 1963 'Roman Gazetteer', *Victoria County History of Essex* 3, 35–204
- Ingle, C. and Saunders, H. 2011, *Aerial Archaeology in Essex: The Role of the National Mapping Programme in Interpreting the Landscape*, E. Anglian Archaeol. 136
- Johnson, S. 1975, 'Vici in lowland Britain', in Rodwell, W. and Rowley, T. (eds), *Small Towns of Roman Britain*, Brit. Archaeol. Rep., Brit. Ser., 15 (Oxford), 75–83
- Jones, A. 2001, 'A Romano-Celtic shrine and settlements at Little Paxton Quarry, Diddington, Cambridgeshire', *Proc. Cambridge Antiq. Soc.* 90, 5–27
- Laycock, S. 2008, *Britannia – The Failed State: Tribal Conflicts and the End of Roman Britain* (Stroud)
- Laurence, R. 2001, 'The creation of geography: an interpretation of Roman Britain', in Adams, C. and Laurence, R. (eds) *Travel and Geography in the Roman Empire* (London), 67–94
- Leary, E. 1989, *The Building Limestones of the British Isles*. Building Research Establishment Report (London)
- Levi, P. 1979, *Pausanias: Guide to Greece* (London)
- Malim, T. 2006, 'A Romano-British temple complex and Anglo-Saxon burials at Gallows Hill, Swaffham Prior', *Proc. Cambridge Antiq. Soc.* 95, 91–114
- Masefield, R. 1997a, Harlowbury Evaluation Trenching Report Stage 2 [copy in Dicks and Chadwick 2010]
- Masefield, R. 1997b, Harlowbury Evaluation Trenching Report Stage 3 [copy in Dicks and Chadwick 2010]
- Masefield, R. 1997c, Harlowbury Evaluation Trenching Report Stage 4 [copy in Dicks and Chadwick 2010]
- Mayo, C. 2006, 'Evidence for a medieval farmstead at Takeley', *Essex Archaeol. Hist.*, 3rd Ser., 37, 196–9
- Mattingly, D. 2006, *An Imperial Possession: Britain in the Roman Empire* (London)
- McCarthy, M. 2013, *The Romano-British Peasant* (Oxford)
- Medlycott, M. 2011, *The Roman Town of Great Chesterford*, E. Anglian Archaeol. 137
- Medlycott, M. 2016, *Harlow Temple: Bartlett Excavation Archive* [dataset]. York: Archaeology Data Service [distributor] <<https://doi.org/10.5284/1040799>> (accessed 10 August 2017)
- Medlycott, M. and Atkinson, M. 2012, 'Aspects of Roman settlement in Essex', *Essex Archaeol. Hist.*, 4th Ser., 3, 74–96
- Millett, M. 1990, *The Romanization of Britain* (Cambridge)
- Morse, C. 2006, *Archaeological Evaluation Report of land at 3663 River Way, Harlow*, L-P Archaeology unpubl. report (copy supplied by Essex HER)
- Mounce, S. and Bradley, P. 2010, *A possible Roman tile kiln at Prentice Place, Carter Mead, Harlow, Essex*, unpubl. report (copy supplied by Essex HER)
- Munsell Color Group 1980, *Munsell Soil Color Charts* (Baltimore)
- Neal, D. S. and Cosh, S. R. 2009, *Roman Mosaics of Britain. Volume 3, Part 1—South-East Britain* (London)
- Neville, R. C. 1842, 'Account of excavations near the Fleam Dyke, Cambridgeshire', *Archaeol. J.* 9, 226–30
- Niblett, R. 1985, *Sbeepen: An Early Roman Industrial Site at Camulodunum*, Counc. Brit. Archaeol. Res. Rep. 57
- Perring, D. and Pitts, M. 2013, *Alien Cities: Consumption and the Origins of Urbanism in Roman Britain* (Portslade: SpoilHeap Publications monogr 7).
- Petts, D. 2003, 'Votive deposits and Christian practice in late Roman Britain', in Carver, M. (ed.) *The Cross Goes North: Processes of Conversion in Northern Europe AD 300–1300* (Woodbridge), 109–118
- Pretzler, M. 2007, *Pausanias: Travel Writing in Ancient Greece* (London)
- Price, J. 1987, 'Glass from Fellmongers, Harlow, Essex: a dated deposit of vessel glass found in an Antonine pit', *Annales du 10e congres de l'association internationale pour l'histoire du Vere* (Amsterdam), 185–206
- Priddy, D. 1982, 'Excavations in Essex 1981', *Essex Archaeol. and Hist.*, 3rd Ser., 14, 135–45.
- Priddy, D. (ed.) 1986, 'Excavations in Essex 1985', *Essex Archaeol. Hist.*, 3rd Ser., 17, 141–55
- Priddy, D. (ed.) 1987, 'Excavations in Essex 1986', *Essex Archaeol. Hist.*, 3rd Ser., 18, 104–13
- Priddy, D. (ed.) 1988, 'Excavations in Essex 1986', *Essex Archaeol. Hist.*, 3rd Ser., 19, 260–71
- Rankov, N. B. 1982, 'Roman Britain in 1971', *Britannia* 13, 328–95
- Reynolds, J. 1988, 'Cities', in Braund, D. (ed.) 1988a, 15–52
- Rippon, S. 2017, 'Romano-British coarse ware industries and socio-economic interaction in eastern England' in Allen, M., Lodwick, L., Brindle, T., Fulford, M. and Smith, A. (eds) *The Rural Economy of Roman Britain: New Visions of the Countryside of Roman Britain volume 2*, Britannia Monogr., 336–52
- Rippon, S. forthcoming a, *Kingdom, Civitas, and County* (Oxford)
- Rippon, S. forthcoming b, 'Changing landscapes? Land, People and Environment in England AD350–600', in Christie, N. (ed.) *Interpreting Transformations of Landscapes and People in Antiquity* (Oxford)
- Rippon, S. forthcoming c, *Territoriality in the Early Medieval Landscape* (Woodbridge)
- Rippon, S., Smart, C. and Pears, B. 2015, *The Fields of Britannia* (Oxford)
- Rivet, A. L. F. 1958, *Town and Country in Roman Britain* (London)
- Rivet, A. L. F. 1964, *Town and Country in Roman Britain*, Second Edition (London)
- Rivet, A. L. F. and Smith, C. 1981, *The Place-Names of Roman Britain* (London)
- Roberts, B. 2007, 'Evidence of Roman agricultural drainage: excavations south of the former A120, Takeley, 2003', *Essex Archaeol. Hist.*, 3rd Ser., 38, 53–65
- Rodwell, W. 1980, *Temples, Churches and Religion in Roman Britain*, Brit. Archaeol. Rep., Brit. Ser., 77 (Oxford)
- Smith, A., Allen, M., Brindle, T. and Fulford, M. 2016, *The Rural Settlement of Roman Britain. New Visions of the Countryside of Roman Britain Volume 1*, Britannia Monogr. 29 (London)
- Stanier, P. 2000, *Stone Quarry Landscapes: The Archaeology of Quarrying in England* (Stroud)
- Sunter, N. 1987, 'Romano-British industries in Purbeck: excavations at Norden', in Sunter, N. and Woodward, P. J. (eds) *Romano-British Industries in Purbeck* (Dorchester), 9–43
- Sutherland, D. S. 2003, *Northamptonshire Stone* (Wimborne)

- Sykes, D. 2006, *Gilden Way, Harlow Essex*, Oxford Archaeological Unit unpubl. report. Available: <doi: 10.5284/1004687> (Accessed 10 August 2017)
- Taylor, A. 1980, 'Field officers' reports, 1979–80', *Proc. Cambridge Antiq. Soc.* 70, ix–xii
- Thompson, I. 2015, 'When was the Roman conquest in Hertfordshire?', in Lockyear, K. (ed.) *Archaeology in Hertfordshire: Recent Research* (Hatfield), 117–34
- Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. 2007, *A Slice Through Rural Essex: Archaeological Discoveries from the A120 Between Stansted Airport and Braintree* (Oxford and Salisbury).
- University of Durham 2005, *Land at Gilden Way, Harlow, Essex: Geophysical Survey*, Archaeological Services, University of Durham unpubl. report 1314 [copy supplied by Essex HER]
- Wacher, J. 1995, *The Towns of Roman Britain*, revised edition (London)
- Wardill, R. 1997, *Harlowbury, Harlow, Essex: Geophysical Survey Report*, Essex County Council Field Archaeology Group unpubl. report 45 [copy supplied by Essex HER]
- West, S. 2015, "'Out of town and on the edge?": evaluating recent evidence for Romanization within the Verulamium region', in K. Lockyear (ed.) *Archaeology in Hertfordshire: Recent Research* (Hatfield), 197–221
- Wheeler, R. E. M. 1928, 'A "Romano-Celtic" temple near Harlow, Essex, and a note on the type', *Antiq. J.* 8, 300–26
- Wickenden, N. 1996, 'The Roman towns of Essex', in O. Bedwin (ed.) *The Archaeology of Essex. Proceedings of the Writtle Conference* (Chelmsford), 76–94
- Williams, J. and Grant, J. 2004, *Darlington's Garage, (East of) Station Road, Harlow: An Archaeological Evaluation*, Archaeological Solutions unpubl. report 1523 (copied supplied by Essex HER)
- Wilson, D. R. 1963, 'Roman Britain in 1962: Sites explored', *J. Roman Studies* 53, 125–59
- Wilson, D. R. 1971, 'Roman Britain in 1970', *Britannia* 2, 243–307
- Wilson, D. R. 1973, 'Roman Britain in 1972', *Britannia* 4, 271–323
- Wilson, D. R. 1974, 'Roman Britain in 1973', *Britannia* 5, 396–480
- Wright, A. G. 1926, 'A find of Roman pottery at Harlow', *Essex Archaeol. Trans.*, New Ser. 18 (iii), 222–5





# Middle Saxon and later occupation at the former Croxley Works, Church Street, Maldon

**Trevor Ennis**

With contributions by Lucy Allott, Gemma Ayton, Luke Barber, Joyce Compton, Anna Doherty, David Dunkin, Val Fryer, Elke Raemen and Helen Walker

*Investigations at the former Croxley Works site, in 2007, have revealed the first stratified evidence for Middle Saxon occupation in Maldon. This suggests that the town may have originated in the Hythe area rather than at the west end of the High Street as has previously been assumed. Two phases of Middle Saxon and a Late Saxon/early medieval phase of activity are identified. Pottery, textile manufacturing artefacts, metalworking waste, a bone comb, structural daub, and charred cereals and fish bone recovered from pit, ditch and structural remains suggest the presence of settlement just above the waterfront. A Middle Saxon pit containing eighteen loomweights is of particular note. In the medieval period pits of 13th/14th-century date probably represent rubbish disposal to the rear of contemporary properties.*

## INTRODUCTION

Evaluation trenching was undertaken by the Essex County Council (ECC) Field Archaeology Unit on the site of the former Croxley Works, Church Street, Maldon, in June 2007, prior to the construction of nine residential dwellings. Three trenches were initially excavated across the footprints of the proposed new buildings. All three trenches contained archaeological remains of Saxon and medieval date. Two of the trenches were subsequently enlarged and excavated during July 2007. The site archive will be deposited in Colchester Museum under the site code MD39.

## Location, topography and geology

The Croxley Works site was located on the north side of Church Street, approximately 40m north-west of St Mary's Church (Fig. 1). Church Street is located at the eastern end of Maldon High Street and leads downhill to the Hythe (town quay) and the River Chelmer. The site was relatively flat, with buildings and areas of hard standing associated with the former builders' yard having been demolished prior to the commencement of the investigation. Both the site and the church are situated above the 10m contour, overlooking the river at the top of a short rise. The underlying geological deposits comprise clay, silt and sand of the London Clay Formation (British Geological Survey ©NERC 2015).

## Archaeological and historical background

The earliest evidence for the occupation of the hill-top at Maldon dates to the Early Iron Age, when there appears to have been an extensive settlement on the crest of the hill (Bedwin 1992; Medlycott 1999, 3).

However, in the Late Iron Age, and throughout the Roman and Early Saxon periods, settlement evidently moved northwards to the low-lying ground around Heybridge, on the opposite side of the Chelmer (Atkinson and Preston 1998). The essential layout of the historic core of Maldon as seen today dates from the Late Saxon period. It can be discerned from the Anglo-Saxon Chronicle (Swanton 2000) that a Saxon settlement of some form was present by AD 913 when King Edward the Elder camped at Maldon whilst a burh was constructed at Witham. Three years later he ordered a burh to be built at Maldon itself. The burh is generally believed to be located at the west end of

town in the area formerly occupied in the Early Iron Age (Fig. 1). However, it has recently been suggested that the burh lay further east, straddling the High Street (Haslam 2015).

The later Saxon town is postulated to have developed around the east gate of the burh and along the High Street that led from the burh down to the Hythe (Medlycott 1999, 18–19). The town was significant in that it had a royal mint from as early as AD 925. The Domesday survey records Maldon as only one of two boroughs within Essex, a status later confirmed for Maldon by royal charter in 1171. Evidence of Late Saxon occupation has been identified during excavations at several High Street sites including The Chequers Hotel (Harding forthcoming), Tesco (Essex Historic Environment Record (EHER) 7725–27), Lloyds Bank (EHER 7722) and at the former Bus Station (Ennis 2015) (Fig. 1).

It is probable that by the 13th/14th century occupation extended all the way down the High Street from the Market Place, outside the east entrance of the former burh, to the Hythe, alongside the river Chelmer. Intermediate sites, 127–129 High Street (Carew *et al.* 2011), 143–147 High Street (EHER 47219), the Old Gas Works (EHER 13086) and the former Bus Station (Ennis 2015) have all provided evidence, either in the form of structures or backyard pitting, that the High Street was fully developed by this time. In the later medieval and early post-medieval periods the town went into decline with no significant expansion occurring until the 18th century. The town developed further in the 19th century following the construction of the railways and has expanded considerably more in modern times.

The Church of St Mary (EHER 7948–52), located close to the former Croxley Works, dates from the early 12th century though documentary evidence suggests that it was in existence by 1056 (Medlycott 1999, 20). St. Mary's is the easternmost parish of the three within Maldon and would have formed the focus of medieval settlement around the port facilities located at the Hythe. There is a large amount of reused Roman building material within the fabric of the church and Roman pottery has been recovered from the churchyard.

The Croxley Works site itself was previously used as a joiners' yard. Ordnance Survey mapping from the 1870s to the 1920s shows a built-up frontage with entrance to the east and numerous outbuildings arranged around the sides of the

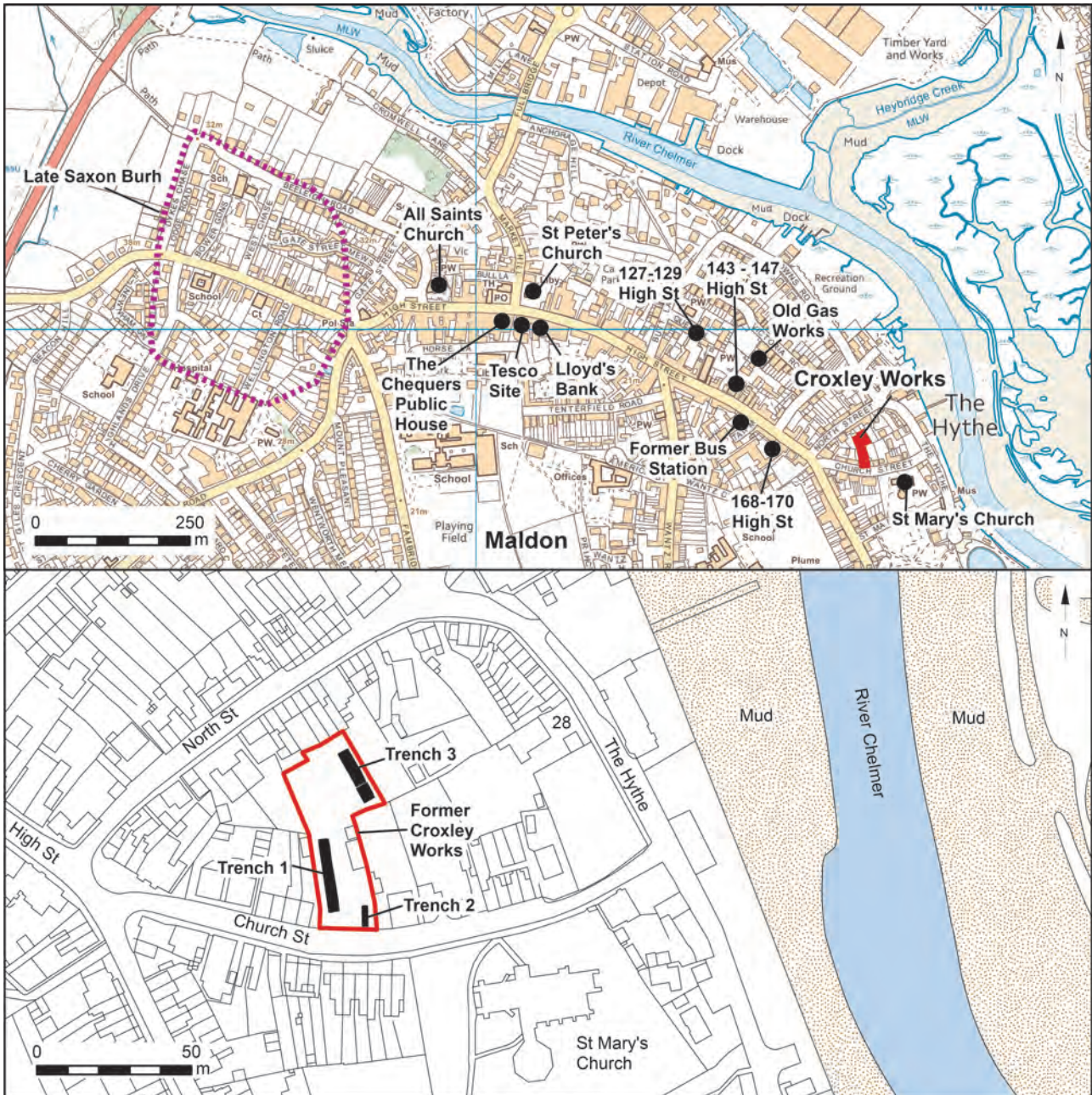


FIGURE 1: Location plan

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yard at the rear. Alterations to the site in the later 20th century included the construction of several new buildings and the provision of a more central entrance way.

**THE SITE**

The site was roughly L-shaped in plan and covered 1,180sq m, being c. 59m in length and varying in width from 18m at the Church Street frontage to 25m in width at the rear (Fig. 1). The three excavated trenches were all located within the footprints of proposed new buildings. Trench 1 was 23.5m long by 3.1m wide, Trench 2 was 6.5m long by 1.5m wide and Trench 3 was 17.5m long by 3.5m wide. The extents of Trench 3 were limited by the presence of substantial concrete foundations of a former building. Overburden removed from above the trenches varied from 0.75m to just over 1m in depth and consisted of modern topsoil and brick rubble overlaying an extensive layer of dark

grey clay silt. The silt varied in depth from 0.4m to 0.7m and probably represented a buried topsoil. Archaeological remains of Saxon and medieval date were sealed beneath this soil, whilst those of post-medieval or more modern date were not. Most of the archaeological features were cut into the natural brown silty clay and are described in period order below.

**Period 1: Late Iron Age/Roman**

A few sherds of Late Iron Age pottery were recovered from across the site. All were residual in later features. Residual fragments of Roman brick and tile were also recovered.

**Period 2: Middle Saxon**

Two phases of Middle Saxon activity were identified on stratigraphic evidence (Fig. 2). Both phases were characterised by the presence of 7th- to 9th-century pottery and fragments

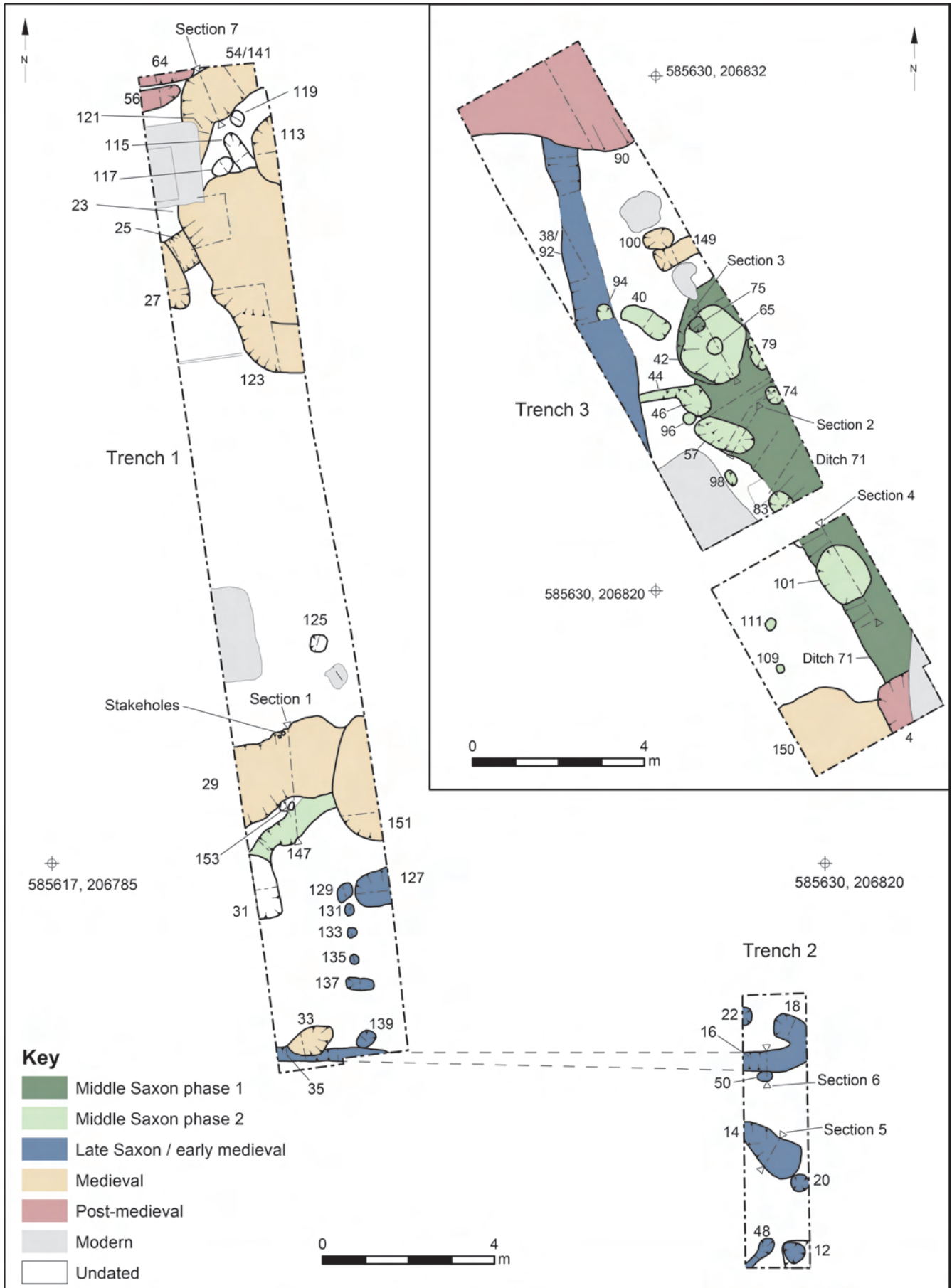


FIGURE 2: Phased plan of excavated trenches

of fired clay, many of the latter displaying wattle/wicker impressions. Other frequent finds included animal bone and oyster shell. Most of the Middle Saxon remains were located in Trench 3. The possible exception was a short length of curving gully [147] excavated in Trench 1. This was 0.6m wide by 0.28m deep, truncated at both ends by later features, and only tentatively dated by a single sherd of pottery (Fig. 3, Section 1).

*Phase 2.1*

The earlier phase of Middle Saxon activity comprised the cutting and subsequent backfilling of large ditch [71], in Trench 3. The ditch was aligned roughly north-west to south-east for most of its 11m+ length but at its northern end appeared to curve around to the north-east—either to a rounded terminal or a corner. It was 1.7m wide by 0.55m deep (Fig. 3, Section 2) and contained two grey/greyish brown clay-silt main fills ([60/107] and [69/108]), with traces of a third, browner deposit infilling the very top. Cut into the base of the ditch was a possible shallow post-hole impression [75] of uncertain relationship.

*Phase 2.2*

The second phase was represented by pits [57], [42] and [101] and post-holes [74], [83], [96] and [98], most of which cut the top of the infilled ditch.

The largest of the pits, irregular-shaped cut [42], was 1.7m long by 0.33m deep and contained two silty fills (Fig. 3, Section 3 and Plate 1). Finds included eighteen complete or semi-complete loomweights from reddish brown upper fill [41] and a large lump of weak lime mortar from black charcoal-rich lower fill

[67/68]. The mortar lump, which was not *in situ*, was over 0.3m long and consisted of two layers, one pink and the other white. In addition, carbonised grain, nutshell, oak and ash charcoal and metalworking slag were all recovered from soil samples taken from this pit. Elongated pit [57], measured 1.2m long by 0.4m deep and contained two fills [58] and [59], of which the lower, [59], may have constituted a clay lining (Fig. 3, Section 2). However, there was no evidence of any *in situ* burning. Finds included a large quantity of animal bone and a fired clay spindle whorl. Pit [101] was 1.4m long by 0.75m deep with steep sides and a flat bottom (Fig. 3, Section 4). It contained four sandy silt fills, [102], [103], [104] and [105]. Finds included fish bone and metalworking slag. Spheroidal hammerscale was noted in a soil sample taken from charcoal-rich fill [104]. Partially-exposed feature [79] at the edge of the trench, possibly a fourth pit, contained further fragments of fired clay with wattle/wicker impressions and is likely to be contemporary.

The post-holes, [74], [83], [96] and [98], were all relatively small and shallow and ranged in length from 0.3m to 0.48m and depth from 0.12m to 0.2m. Post-holes [83], [96], [98] formed a north-north-west to south-south-east alignment and might represent the remains of a fence line along with an undated, but possibly contemporary, post-hole [94], cut by later gully [38/92]. The fence was on a parallel alignment with infilled ditch [71] and might have been a later replacement.

A small group of excavated features ([40], [44], [46], [65], [109] and [111]) contained no dating evidence, although it is likely that at least some were associated with one of the phases of Middle Saxon activity. Shallow east to west aligned slot [44]

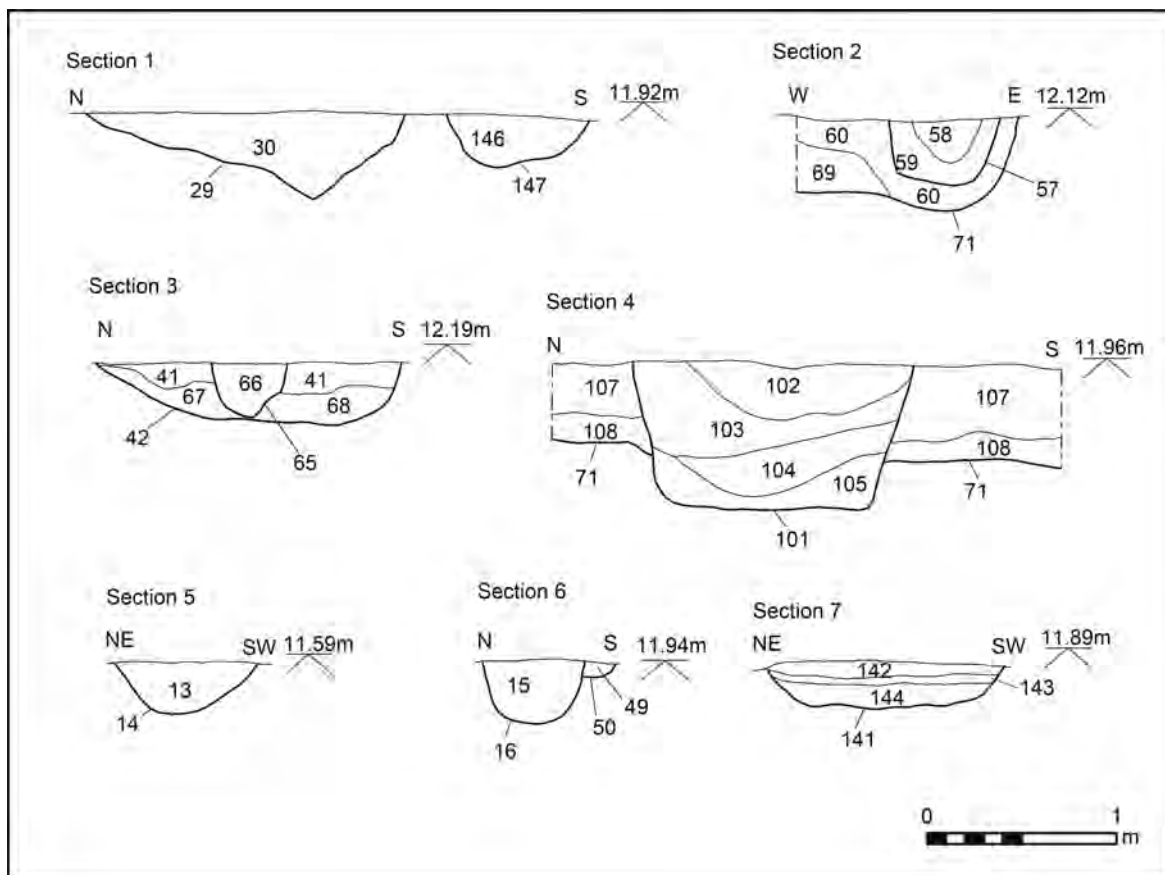


FIGURE 3: Selected sections, 1–7



PLATE 1: Middle Saxon Pit [42]

was truncated by a later (11th-century) gully and therefore could be of Middle Saxon date. The brownish grey silty fill of this slot merged with that of adjacent small pit or post-hole [46] which may also be contemporary. Post-hole [65] cut the top of pit [42] and could potentially represent a third phase of activity, though could just as easily be of considerably later date. Pit [40] looked vaguely similar to pit [57] in plan but was only half the depth and more rounded in profile. Two 0.09m deep post-holes ([109] and [111]) in the south of Trench 3 were not obviously associated with other features.

### Period 3: Late Saxon/Early medieval

Late Saxon/early medieval features were identified in all three trenches. Gully [38/92], located in the north of the site, in Trench 3, was firmly dated to the Late Saxon period. It was over 8m long, 0.85m wide and 0.18m deep, and was broadly aligned north to south. Its grey to brownish grey clay silt fill produced nine sherds of 11th-century pottery and the remains of a composite bone comb, together with a variety of animal, bird and fish bones, and oyster, mussel and cockle shells. In addition, wheat was recovered from an environmental sample taken from this deposit. Gully [38/92] was aligned perpendicular to Church Street and if it extended further south may have formed an eastern boundary to the Late Saxon remains in Trenches 1 and 2 (see below).

Further features of Late Saxon/early medieval date were located in the south of the site. In Trench 1, the single fill of pit [127] contained five sherds of 10th- to 13th-century pottery. A further sherd was recovered from elongated oval-shaped pit [14] (Fig. 3, Section 5) in Trench 2. This had an ash-rich fill [13], containing over 1kg of metalworking slag along with animal bone and fired clay. To its immediate south-east was a shallow sub-circular depression [20], 0.08m deep, which

contained one pottery sherd of possible Late Saxon date, whilst a second shallow depression [22] to the north-west contained one definite sherd of 10th/11th-century pottery. It is possible that both depressions may represent the remnants of truncated post-holes.

A number of undated features of possible contemporary date were located in the same area. To the immediate west and south of pit [127] was a line of six adjacent post-holes, [129], [131], [133], [135], [137] and [139]. All were small and of fairly shallow (0.08m-0.22m) depth. The deepest of the post-holes [137] appeared to contain a linear (east to west) slot in its base, perhaps to support an upright timber plank rather than a post. A gully, [16/35], 0.53m wide by 0.32m deep (Fig. 3, Section 6), perhaps a property sub-division, ran across the south end of the site perpendicular to the line of post-holes and potentially also perpendicular to the southwards continuation of gully [38/92]. Several pieces of metalworking slag were recovered from its mottled grey/brown silty clay fill that were similar to those from nearby Late Saxon/early medieval pit [14]. In Trench 2, pit [18] had an uncertain relationship with gully [16/35], although it appeared to be a separate but probably contemporary feature. To the south, small post-hole [50] may also be contemporary, as may be possible double post-hole [12], 0.36m deep, and a very truncated small gully or slot, [48].

### Period 4: Medieval

Medieval features were present in Trenches 1 and 3. The potentially earliest feature was large pit [150], at the south end of Trench 3. The pit was in excess of 2m wide and over 0.4m deep and contained two sherds of early medieval pottery, the latest of which dated to the 12th century. Two smaller, adjacent features in the northern half of the trench, pit [100]

and possible gully [149], were more broadly dated to the 12th to 14th century. Pit [100] was oval in plan and 0.14m deep. Possible gully [149] was sub-rectangular in plan, 0.16m deep and continued beyond the edge of the trench.

The majority of the medieval features were present in Trench 1. Most were located to the north of an east to west aligned boundary ditch [29] toward the south of the trench and running broadly parallel to Church Street. The ditch was 0.45m deep and had a V-shaped profile (Fig. 3, Section 1), its single fill [30] containing fourteen sherds of 13th- to 14th-century pottery. Two possible stake-hole impressions were noted in plan on the northern edge of the ditch and a possible small post-hole [153] on its south side. To the east, the ditch appeared to be cut by the curving edge pit [151] which contained more broadly dated medieval pottery and is likely to be of slightly later date (14th century?) on stratigraphic grounds.

In the north of the trench was a short length of gully [25], 0.8m wide by 0.24m deep, containing 13th- to 14th-century pottery. The gully was truncated to the west by a small oval pit [27] and to the east by pit [23] that formed part of a group of at least three inter-cutting pits, along with [113] and [123], all broadly dating to the 13th to 14th century. The largest of these, [23] was approximately 3.5m long, in excess of 2m wide and some 0.75m deep and was filled with dark grey silty clay. All three pits contained medieval pottery, medieval roof tile, animal bone and oyster shell. In addition, residual Saxon pottery was recovered from pits [23] and [113].

To the north of the pit group complex was an irregular, elongated feature [54/141], more pit-like than gully, measuring 1.25m wide by 0.26m deep with three distinct fills ([142], [143] and [144]). The lowest fill [144] comprised of dark grey silt, the middle fill [143] a horizontal band of oyster shells and the upper fill [142] comprised of mid grey to mid yellowish brown silty clay (Fig. 3, Section 7). One sherd of 12th- to 14th-century pottery was recovered.

Perhaps the latest medieval feature was small oval pit [33] located close to the southern end of the trench which contained one sherd of probably 14th-century (or slightly later) pottery and was the only positively identified medieval feature south of boundary ditch [29].

### Period 5: Post-medieval

Two post-medieval pits [4] and [90] were identified at either end of Trench 3. Both contained a variety of finds including 17th- to 19th-century pottery, post-medieval brick and tile and fragments of clay pipe. Three clay pipe stems recovered from pit [4] were dated as mid-17th- to early 18th-century, though may be residual as modern pantile was also recovered, and a single clay pipe stem from pit [90] dated to c. 1750–1910. Two small pit-like features, [56] and [64], of post-medieval or later date were located at the northern end of Trench 1. Both were located directly beneath an area of 19th/20th-century disturbance and are perhaps more likely to be of similar date.

### Undated

Five features ([31], [115], [117], [119] and [125]) within Trench 1 were undated features. Three of these, post-holes [117] and [119] and gully [115], were located amidst the area of medieval pitting in the north of Trench 1 and are all likely to be broadly contemporary. Pit [31] truncated possible Middle

Saxon gully [147] and is therefore clearly later. The dating of isolated feature [125] is uncertain. It did contain a high density of pebbles, perhaps acting as a post pad.

### FINDS AND ENVIRONMENTAL REMAINS

Domestic pottery of Late Iron Age, Saxon and medieval date was recovered along with a range of other artefacts including a bone comb, loomweights, a spindle whorl, slag, a large lump of mortar and structural daub with wattle/wicker impressions. The assemblage includes non-local pottery that would have been traded up and down the east coast and an imported item from the Low Countries reflecting Maldon's function as a port. The presence of a variety of mammal bones, sea fish bones, marine mollusc shells and cereal grains suggest that both land-based and marine-based resources were being exploited within settlement activity alongside the river.

#### Prehistoric and Roman Finds by Anna Doherty

A few residual finds of earlier periods were recovered, including an earlier prehistoric flint blade, a flint-tempered pottery sherd of probable later prehistoric date and two grog-tempered fragments belonging to the Late Iron Age/Early Roman period. A number of redeposited Roman brick and tile fragments were found, mainly as residual elements in Middle Saxon contexts, perhaps suggesting reuse of earlier building materials in this phase.

#### Post-Roman pottery by Helen Walker

A total of 132 sherds weighing nearly 3kg were excavated from thirty-three contexts. The pottery, which spans the Middle Saxon to post-medieval periods, has been catalogued according to Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1–16). The fabrics present are quantified in Table 1. For fabric descriptions, rim typologies and the dating of these wares in Essex, see Drury (*et al.* 1993, 78–92) and Cotter (2000). For descriptions of the Middle and Late Saxon wares see Hurst (1976, 299–303, 314–323).

#### *Pottery from the Middle Saxon phases*

All but one sherd belonging to this period is Ipswich-type ware and nearly all finds occur in Trench 3 features located at the back of the site (where it was found in association with Saxon loomweights and a spindle whorl). A single sherd of Ipswich-type ware was found in a gully in Trench 1, close to the street frontage and a number of Ipswich-type ware sherds were also residual in later features.

Ipswich-type ware is the most abundant and significant find of the entire assemblage, comprising 19% of the total by sherd count, but as sherds are large and thick-walled, it comprises 47% of the total by weight. Most sherds found are of the sandy/smooth fabric; no examples of gritty Ipswich-type ware were noted. Colour tends to be grey, with some examples showing brownish patches and interiors. Identifiable vessel forms comprise two upright jar rims, one plain (Fig. 4.1) and one showing a band of diamond rouletting below the neck (Fig. 4.2). The plain rim is too fragmented to measure, but the rouletted jar rim is about 200mm in diameter, which corresponds to large cooking-pot size (West 1963, 247). In addition, there are a number of very thick-walled sherds that may come from large storage jars. One body sherd shows lines of burnishing, which is typical of this ware. Several sherds

Fabric (in approx. chronological order)	Sherd Nos	Wt (g)
Ipswich-type ware	25	1345
Middle Saxon—unidentified	1	16
Thetford-type ware	7	101
St Neots-type ware	8	94
Shell-tempered ware	3	46
Shell-and-sand-tempered ware	5	117
Sand-with-superficial-shell-tempered ware	2	43
Early medieval ware	8	109
Early medieval ware with flint	1	8
Medieval coarse ware	46	434
Hedingham Ware	5	79
London-type ware	1	2
Scarborough Ware phase I	1	15
Sandy orange ware	9	105
Colchester-type ware	2	93
?Kingston-type ware	2	11
Coarse border ware	1	7
Low Countries red ware	1	169
Post-medieval red earthenware	4	71
<b>Total</b>	<b>132</b>	<b>2865</b>

TABLE 1: Post-Roman pottery by fabric, weight and sherd count

are internally abraded probably through use. Also found in a Middle Saxon feature, in association with Ipswich-type ware, was a thickened everted rim fragment in an oxidised non-local fabric, which is hard and micaceous with fine sands. It is red-brown in colour, but with darker surfaces and shows a single horizontal incised line around the neck. The fabric is similar to that of sherds in the author's reference collection from an un-published medieval kiln site at Fore Street, Ipswich. Given the similarity to a fabric produced in Ipswich, albeit medieval, it is possible that this sherd is a variant of Ipswich-type ware and is also Middle Saxon.

#### *Middle Saxon pottery catalogue* (Fig. 4)

- 4.1 Jar: Ipswich-type ware: grey surfaces and thick pale grey core; unabraded; no traces of use. Fill [60], ditch [71]. Period 2.1
- 4.2 Jar: Ipswich-type ware: grey surfaces, brownish margins and grey core; rouletted decoration; streaks of possible residue or natural accretion inside neck; wear to top of rim. Fill [41], pit [42]. Period 2.2

#### *Pottery from the Late Saxon/early medieval phase*

Single sherds of Thetford-type ware were excavated from features [20] and [22] in Trench 2, close to the street frontage. Further to the back of the site, in Trench 3, gully [92] produced



FIGURE 4: Middle Saxon pottery

a mixture of Thetford-type ware and St Neots-type ware. In addition, a few sherds of both wares were residual in later Trench 3 features, with a single residual find in Trench 1. These are Saxo-Norman fabrics, most likely dating to the 10th to 11th centuries, and are much less common in this assemblage than the Ipswich-type ware (5% and 6% of the total by sherd count respectively). Apart from base fragments, and a rilled body sherd in Thetford-type ware, there are no featured sherds.

Early medieval pottery (comprising the shelly fabrics and early medieval ware) is relatively common at this site, accounting for 14% of the total by sherd count, although much is residual in later contexts. However, it is current in pits [14] and [127] (in Trenches 2 and 1 respectively). Spanning the 10th/11th to 13th centuries, some of the early medieval pottery may be contemporary with the Saxo-Norman wares, but the two types do not occur together in the same feature. Diagnostic sherds comprise an early medieval ware beaded cooking-pot rim, perhaps dating to the 12th century, and fragments from possible bowl rims in shelly fabrics, perhaps dating from the 12th to early 13th centuries. There is one variant of early medieval ware, which contains orange flint as well as sand-tempering.

#### *Pottery from the medieval phase*

There are a number of small groups of 13th- to 14th-century pottery, these occur mostly in Trench 1, towards the street frontage, with pottery of this date also in Trench 3. There are no nearly complete vessels or even large fragments, but they are typical medieval groups in that they comprise unglazed kitchen wares, especially cooking-pots, with a smaller number of glazed fine ware sherds from jugs. Fine wares include locally-produced Hedingham Ware, diagnostic sherds of which, comprise a rim decorated with applied red slip pellets from a Scarborough-style early rounded jug, datable to c. 1175/1200–1250 (cf. Cotter 2000, fig. 49.3), and the rim from a stamped strip jug, the most common Hedingham Ware type, dating from the early 13th to early 14th centuries. In addition, there are examples of locally-produced slip-decorated and glazed sandy orange ware jug fragments, including an unstratified example of Colchester-type sandy orange ware. Occurring in medieval pit [33] is an unglazed sandy orange ware jug rim with a bifid handle. This is a later type and is probably 14th century, though a later, 15th- or 16th-century date, cannot be precluded.

Traded medieval fine wares are also in evidence; there are single sherds of London-type ware, traded up the east coast from the late 12th to mid 13th centuries, and Scarborough Ware phase I, traded down the coast from Yorkshire between c. 1200–1225. The Scarborough Ware sherd is part of an arm or false handle as found on bridge-spouted jugs (cf. Farmer 1979, pl. IV). Three sherds of sandy-white ware have been tentatively

identified as Surrey White Ware products (Pearce and Vince 1988). One is decorated with rows of applied pellets, and a second with bands of incised grooves, both under a mottled-green glaze. These types of decoration are characteristic of Kingston-type ware, widely traded during the period c. 1270–1340, but in both cases the fabric is rather untypical. A flat, internally-glazed base sherd has a whitish fabric with streaks of red clay and inclusions of coarse iron-stained sands, and may be an example of coarse border ware, a later type of Surrey White Ware, produced from the mid-14th century to early 16th centuries. However, as it was found in association with 13th- and 14th-century pottery, a 14th-century date is more likely.

The kitchen wares comprise examples of grey-firing medieval coarse ware, vessel forms comprising one in-turned jug rim and several cooking-pot rims, of types H1, datable to the 13th century, and types H3 and E5A, datable to the late 13th and 14th centuries. There is also a sandy orange ware lid-seated jar rim.

#### *Pottery from the post-medieval phase*

Pottery belonging to this phase is represented by four sherds of glazed post-medieval red earthenware (in pits [4] and [6]), including a hooked jar rim fragment dating to the 17th century or later. In addition, part of a Low Countries red ware frying pan or skillet, dating to the late medieval to early post-medieval period, was found unstratified.

#### *Discussion*

Ipswich-type ware, which has a coastal and riverine distribution hence its appearance at Maldon, has been found at other sites in the town, all situated on the High Street. These include the former Chequers pub (Harding forthcoming), Lloyds Bank (unpublished) and 127–9 High Street (Carew *et al.* 2011, 109), but in each case only one or two sherds are present, and that from The Chequers and 127–9 High Street is residual in later contexts. Ipswich-type ware is absent at Maldon Bus Station, a site at the bottom of the High Street and closer to The Hythe (Ennis 2015).

To the author's knowledge, this is the largest group of Ipswich-type ware found in the town to date. Ipswich-type ware is conventionally dated from the mid-7th to mid-9th centuries. Perhaps the best-dated example in Essex is a find from Bradwell-on-Sea, which came from a deposit immediately pre-dating the building of the church of St Peter-on-the-Wall in c. 654 (Rodwell 1976, 236). As is the case at this site, Ipswich-type ware was also found in association with Saxon loomweights at Cox Lane, Ipswich (West 1963, 241–4), but it is probably not significant, other than to indicate that occupation was of a domestic nature.

The pottery would suggest that occupation in this vicinity of Maldon was at its most intense during the Middle Saxon period; there is certainly much less Saxo-Norman pottery and the fact that most of the Saxo-Norman pottery occurs away from the main focus of Middle Saxon activity may indicate settlement spreading out over time. Both St Neots-type ware and Thetford-type ware are relatively common in Maldon and, in spite of the name, Thetford-type ware was first made at Ipswich, evolving out of the Ipswich-type ware industry. St Neots-type ware was made in Cambridgeshire and its trade-route to Maldon is not obvious.

There is much evidence of occupation during the High Middle Ages, with pottery spanning the later 12th to later 14th centuries, but little pottery belongs to later periods. The medieval assemblage is typical of those found elsewhere in the town, with the usual range of local and traded wares, although no overseas imports are present (with the exception of the late medieval/early post-medieval Low Countries red ware vessel).

#### **Bone Comb** by Elke Raemen

A single-sided, composite comb was recovered from fill [91] of gully [92] (Fig. 5). It is manufactured from antler (Gemma Ayton pers. comm.), which was the most commonly used raw material for this type of comb (*e.g.* Coppergate, MacGregor *et al.* 1999, 1926). The decorative motif includes saltires and cross-hatching, a type of decoration which elsewhere was popular during the 10th to early 11th century (MacGregor *et al.* 1999, 1938).

#### 5. RF <7> Antler Comb

Incomplete. Convex back. Tooth plate fragments and part of the side plates, the latter conjoining and including one terminal. End plates missing. A total of six iron rivets survive. Side plates are D-shaped in section, whereas tooth plates are rectangular-sectioned. The decoration on each of the side plates comprises a central field, filled with at least two hatched saltires, each demarcated by incised transverse lines. L132+mm, W32 mm, T11mm. Fill [91], gully [92]. Period 3

#### **Fired Clay by Elke Raemen**

##### *Structural Daub*

Twenty-five contexts contained small quantities of fired clay, totalling 745 fragments weighing just under 4kg. They derive mostly from pits, in particular [42], [57] and [101], dated to Phase 2.2, although Phase 2.1 ditch [71] is also fairly well represented. Very low quantities were recovered from Periods 3 and 4. Fragments are in a reddish orange fabric with moderate fine quartz inclusions, rare to moderate organic temper and rare medium quartz inclusions. Many pieces retain wattle impressions, some with two imprints at right angles. Too little survives however to establish the weave pattern. They would

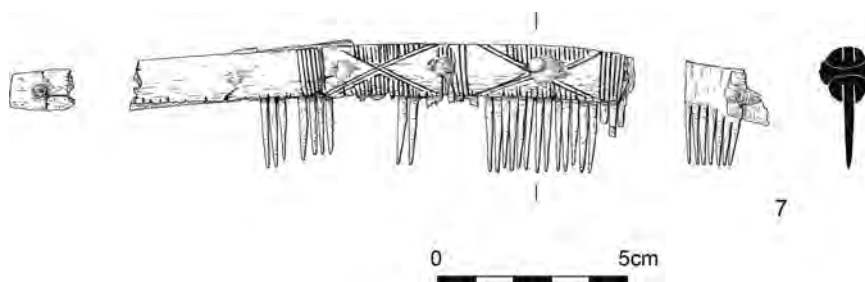


FIGURE 5: Bone comb



have derived from wattle and daub buildings and structures. It is rarely possible to establish what type of structure daub derives from, and certainly the current assemblage is too fragmented to make any such suggestions.

#### *Textile Production*

Evidence of both spinning and weaving was recovered. Loomweights and spindle whorls are ubiquitous finds on Anglo-Saxon sites, the former coinciding with the use of the warp-weighted loom. A substantial portion of daily life would have been taken up by textile production, and spinning and weaving were only parts of a long chain of processes, which was to some extent defined by the farming cycle (Walton-Rogers 2007, 9–10).

#### **Loomweights**

A total of twenty-two whole or part loomweights were recovered (Plate 2). Apart from a small edge fragment found in fill [66] of posthole [65], probably representing a C-shape sectioned intermediate weight, all loom weights were found in fill [41] of pit [42] (Table 2). Eight of these are complete. Pottery from the same context is of mid-7th- to mid-9th-century date.

Saxon loomweights have been categorized following the typology first established by Hurst (1959), based on the size of the central hole in relation to the overall diameter of the weight. Of the three main categories, the earliest, annular type has not been encountered. The majority of weights are of intermediate type. It should be noted however that a large proportion are asymmetrical, sometimes resulting

in a change of section shape, and a number are borderline intermediate/bun-shaped (Fig. 6). Although traditionally dated to the Middle Saxon period, it has been recognized that they considerably overlap with both annular and bun-shaped/biconical forms (e.g. Goffin 2003, 218–220). Weights <17>, <18> and possibly <20> are biconical and contemporaneous with the bun-shaped type, which are largely of Late Saxon date but appear from the 7th century onwards (Goffin 2003, 218–220). All three weights show a slight ridge, similar to one noted on an annular loomweight in London (Goffin 2003, fig. 152, <L482>, 219). Of these three, loomweight <17> is noticeably better formed (Fig. 6.17), although all three are in a slightly finer fabric.

Raw material for the loomweights would have been sourced locally. Two main groups can be established. The first is sparse fine sand-tempered with rare to moderate organic inclusions. The second group contains in addition calcareous temper, ranging from streaks to moderately coarse to very coarse lumps to 11mm. There is some discussion about whether loomweights were fired prior to use, or accidentally (Walton Rogers 2007, 32). The weights from Croxley Works were evenly fired and show no sign of having been used unfired.

The manufacturing method of the weights is not always clear, although loomweight <3> was formed by joining the ends of a clay sausage, whereas the majority are likely to have been formed by piercing discs of clay. A number of weights, e.g. <1> and <4>, have such regular central holes that they are likely to have been made with a stick rather than using



PLATE 2: Middle Saxon Loomweights from pit [42]

fingers (Figs. 6.1 and 6.4). This characteristic was also noted on a group of intermediate and bun-shaped loomweights from Chigborough Farm, Goldhanger (Tyler 1986).

Most weights display some thread wear, varying to virtually none to very deep and wide. The latter suggests that whereas some weights were virtually new when discarded, others had been used over a longer period, and the weights clearly did not belong to the same set. The weight ranges are a further indicator that these loomweights derived from different sets. Generally, loomweights fall between 150g and 550g (Walton-Rogers 2007, 31), although Middle Saxon loomweights are thought to more commonly weigh over 500g (Blackmore 2008, 196). The complete loomweights from Croxley Works can be divided in two groups, one 288–424g, and a second 752–764g. The latter group, represented by three weights (<4>, <5> and <13>) may well have belonged to the same set. Although in this instance representing discard, loomweights do not travel far, and it is likely they would have been in use in the near vicinity.

**Spindle whorl**

An asymmetrical, hemispherical spindle whorl was recovered from pit [57] (fill [58]) (Fig. 6.6). This type is especially prevalent in the eastern counties. The whorl is of Walton-Rogers type A1, with one flat face (Walton-Rogers 2007, 24). Pit fill [58] has been dated to Middle Saxon Phase 2.2.

6.6 RF <6> Ceramic spindle whorl

Complete. Hemispherical whorl in a silty orange clay with two concentric grooves on the base and four concentric groups along the sides, only one of which remains intact. The remainder have probably worn away as the piece is fairly abraded, due to its material rather than reworking or heavy use. Diameter 36mm, height 15mm. Central hole 10.6mm. Wt 25g. Fill [58], pit [57]. Period 2.2

**Lime Mortar** by Elke Raemen

A substantial lump of weak lime mortar, weighing 8.6kg, was recovered from pit [41] (fill [66], RF <8>; Phase 2.2). The mortar was no longer *in situ* but appears to have rested in a circular, flat-based container. It may represent a fragment of mortar residue from the base of a mortar mixer, examples of which have been found at St Peter's Street in Northampton. There, three mortar mixers were noted, each formed of a large bowl 2.2m to 3m in diameter with central post-hole and lined with a wattle and daub framework. The Northampton examples are all of Middle Saxon date (Williams 1979, 118).

The mortar lump displays some layering. The layer nearest the base is pink, presumably due to the mixing in of some clay from the base, and contains common fine quartz, moderate chalk to 3mm, rare orange iron oxides to 2mm and rare very coarse quartz. The layer above this represents the actual white lime mortar and includes moderate chalk pellets to 3mm, rare orange iron oxides to 2mm and moderate medium to coarse quartz. The mortar retains a slightly curving edge, indicating

RF No	Fig	Weight (g)	Height (mm)	Diam (mm)	Perforation diam (mm)	Complete?	Type
1	6.1	288	36	95	27	Y	Flattened, D-shaped section (intermediate)
2		366	37	c.108	24	Y	Asymmetrical, D-shaped section (intermediate)
3	6.3	424	43	c.110	34	Y	Asymmetrical, D-shaped section (intermediate)
4	6.4	752	55	124	26	Y	C-shaped section (intermediate)
5		764	54	128	21	Y	C-shaped section (intermediate)
9		258+	35	98	27	N	Flattened, D-shaped section (intermediate); c.65% complete
10		372	37	113	21	Y	Flattened, asymmetrical, D-shaped section (intermediate); c.90% complete
11		384	41	107	26	Y	Flattened, asymmetrical, C-shaped section (intermediate)
12		312	35	109	33	Y	Flattened, asymmetrical, D-shaped section (intermediate)
13		718+	54	123	35	N	C-shaped section (intermediate); near complete
14		338+	40	100	19	N	Flattened, D-section; c.85% surviving
15	6.15	298+	35	107	19	N	Flattened, asymmetrical, C-shaped section (intermediate); ridge; c. 0% complete
16		382+	49	102	21	N	C-shaped section; c.65% complete
17	6.17	370+	96	52	19	N	Biconical; c.60% complete
18		312+	57	94	17	N	Asymmetrical, D-shaped to biconical section; c.60% complete
19		280+	34	103	25	N	Flattenend, asymmetrical, C-shaped section; c.80% complete
20		230+	49	91	23	N	Asymmetrical, D-shaped to biconical section; ridge; c.75% complete
21		226+	39	88	25	N	Asymmetrical, C-shaped section; c.85% complete

TABLE 2: Catalogue of loomweights from pit [42]

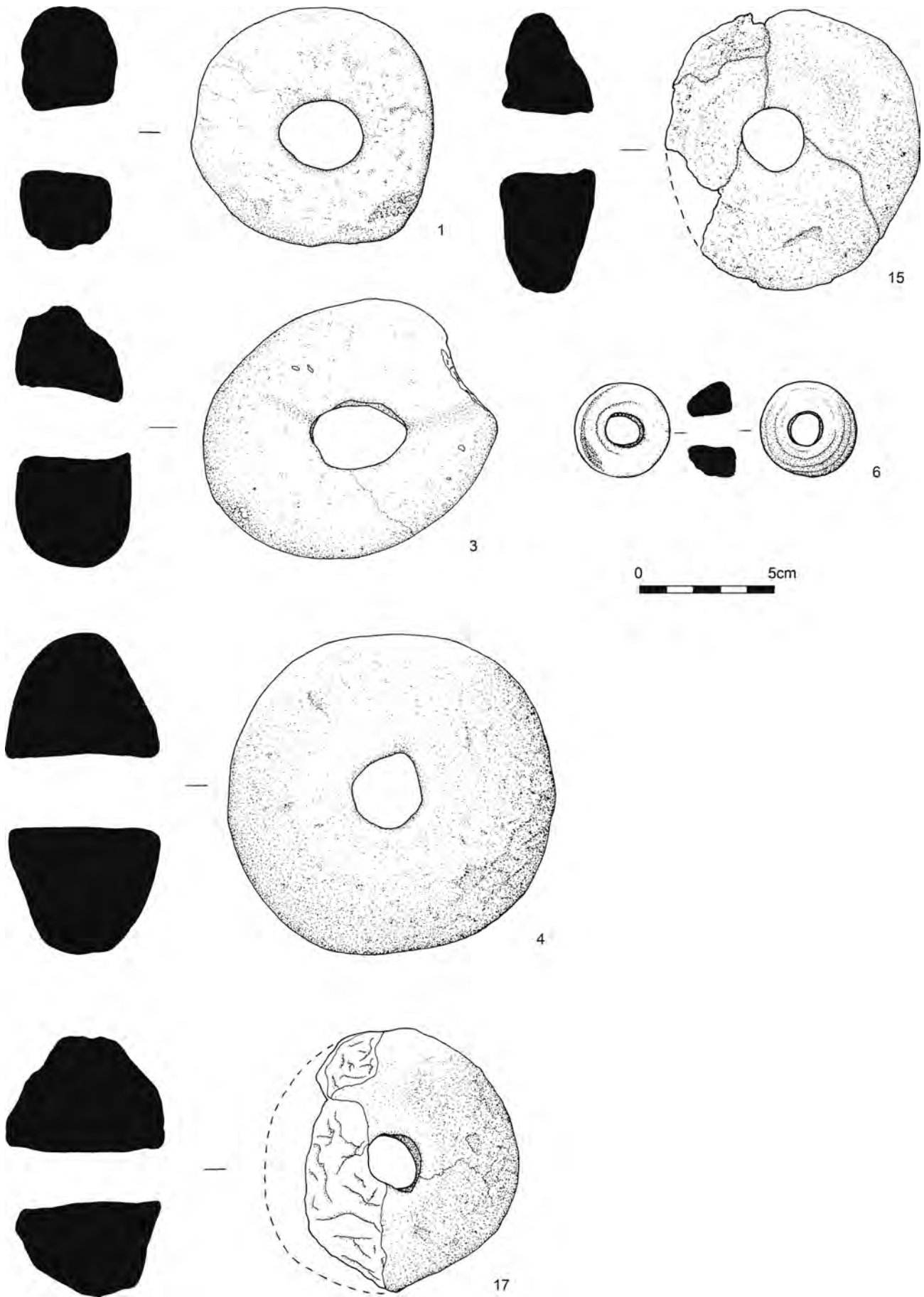


FIGURE 6: Loomweights and spindle whorl

a potential diameter of 0.9m. Too little, however, survives of the circumference to establish the diameter with any certainty.

**Geological Material** by Joyce Compton and Luke Barber  
The excavations recovered thirteen pieces of stone, weighing 1,254g, from seven individually numbered contexts. The vast majority of the assemblage (by count) consists of fragmented and weathered pieces of sepiaria nodules that would have been naturally present in the area. Although they were recovered from deposits from the Middle Saxon period none show any signs of having been deliberately modified, though some show signs of burning. The only non-local stone consists of an 810g fragment from a 67mm thick lava quern with pecked grooved grinding face (residual in post-medieval pit [90], fill [87]). The piece has adhering buff sandy mortar on its broken edges and has clearly been re-used in walling. Although a medieval date is suspected for the quern, such types were in use from the Roman period on.

**Metallurgical Remains** by Joyce Compton and Luke Barber

The excavations recovered 1,962g of slag from nine individually numbered contexts. These totals include both hand-collected pieces and material from the environmental residues.

The earliest slag was recovered from Phase 1 Middle Saxon ditch [71] (fill [85]). This consists of a 98g weathered piece of slightly aerated grey undiagnostic iron slag. Although probably from smithing, the piece has obviously been extensively worn and could be residual. The Phase 2.2 Middle Saxon deposits produced a little more material. Pit [101] (fills [102], [104] and [105]) contained 338g of slag in a fresher condition than that from fill [85]. This pit group contained a 270g fragment of undiagnostic iron slag (fill [105]) as well as small quantities of lightweight aerated fuel ash slag. Although the latter could have been created by any high temperature activity, including a domestic hearth, the presence of fresh lightweight spherical hammerscale suggests the waste derives from smithing. The other pit of this phase (pit [42], fills [41] and [68]) produced 348g of similar lightweight grey ashy fuel ash slag. Both its fills produced further lightweight hammerscale in a fresh condition. As such it would appear that low level iron smithing was occurring during the Middle Saxon period somewhere in the vicinity.

More than half of the total slag by weight was found in a single Period 3 feature: pit [14] in Trench 2. This produced 1,010g of slag, consisting of both relatively large fresh pieces collected by hand and 68g of smithing flakes and spheroidal hammerscale from the bulk soil sample of its fill, [13]. The majority of the larger pieces consist of lightweight vesicular slag with vitrified surfaces, sometimes with adhering sandy clay hearth/furnace lining. However, some denser rusty pieces are also present. Taken as a whole, the assemblage from this pit suggests iron smithing was continuing at the site, but again, only low levels are suggested by the small assemblage size. Several pieces of lightweight and vitrified slag were also collected from the fill of nearby gully [16].

**Animal bone** by Gemma Ayton

A total of 7,510g of animal bone has been recovered from forty-five stratified contexts with a majority of the bones deriving from features dating to Phase 2.1. The bone was scanned for

condition and completeness, and identifications of the animal types and skeletal elements present were carried out using Schmid (1972). Most of the bone is in good condition with little abrasion, but the assemblage is fragmentary.

It seems likely that the assemblage derives from domestic waste as it is dominated by domestic food animal. Sheep/goat and pig occur frequently whilst cattle are present but less common. Bird bones, predominantly domestic fowl, were noted in eleven contexts, whilst three contexts contained domestic/greylag goose specimens. Horse was identified in Late Saxon gully [92], fill [91], and a red deer radius was identified in Middle Saxon ditch fill [108] (ditch [71]). Both meat-bearing and non-meat bearing bones are present and a scattering of burnt bones were retrieved from across the site.

The assemblage contains a small amount of fish bone, the majority of which was retrieved from soil samples though a quantity of cod cranial elements were retrieved from gully fill [91]. Despite the site's proximity to the Blackwater estuary the fish bones provide little evidence of local river fishing. Although eel was present in all seven soil samples (taken from pits [42], [101], [14] and gully [92]) marine taxa, including cod, flatfish and herring were dominant.

**Marine Molluscs** by David Dunkin

The site produced forty-eight contexts containing marine molluscs with a total weight of 7.494 kg. The assemblage was dominated by oyster (*Ostrea edulis*) at c.98–99%. Other species represented, and therefore in very small quantities, are: mussel (*Mytilus edulis*), cockle (*Cerastoderma edule*), carpet shell (*Venerupis decussata*) and scallop (*Aequipecten opercularis*). Thirty-three of the forty-eight contexts are of Middle/Late Saxon date (Periods 2.1/3). The total assemblage comprised just eight contexts containing more than 200g by weight (five of Period 2.1; one of Period 3; two of Periods 4/5).

The shells from the larger assemblages have relatively high levels of distortion and infestation and are variable in size and age, with a large number of juvenile individuals represented. Furthermore, a high proportion have adhering shells. All of this suggests that the shells were harvested from wild colonies. The most probable source of the oyster is the Blackwater estuary which is situated close to the site. The overall numbers of shell, the largest context containing ninety-five left/right valves of oyster (fill [91] in gully [92], Period 3), suggests this food resource was of minor importance at the site.

**Charred plant macrofossils and wood charcoal**

by Lucy Allott and Val Fryer

Bulk soil samples taken from Middle Saxon and Late Saxon/early medieval features were floated for retrieval of environmental remains (Table 3). The flots were assessed under a binocular microscope (Fryer) at magnifications up to x16. Wood charcoal fragments were identified (Allott) using a metallurgical incident light microscope at x50–400 magnification and through comparison with modern reference material. Nomenclature used follows Stace (1997).

All plant macrofossils were preserved through charring, with cereals and weeds notably more abundant in Period 2 Middle Saxon samples than the later deposits. Preservation was generally very good; however, some grains were puffed and distorted possibly as a result of combustion at very high temperatures. All but sample <5> contained globules of

Sample No.	1	3	6	4	5	2	7
Context No.	41	68	67	104	105	13	91
Feature	Pit 42			Pit 101		Pit 14	Gully 92
Phase	2.2			2.2		3	3
<b>Cereals</b>							
<i>Avena</i> sp. (oat grains)	x	x	x				
<i>Hordeum</i> sp. (barley grains)	xxx	x	xx				
<i>H. vulgare</i> L. (six-row barley— asymmetrical lateral grains)	xcf	xcf					
<i>Secale cereale</i> L. (rye grains)	xcf		xcf				
<i>Triticum</i> sp. (wheat grains)	xx	xx	xx			x	x
Cereal indet. (cereal grains)	x	x					
<b>Herbs</b>							
<i>Bromus</i> sp. (brome)			1cf				
Chenopodiaceae indet. (goosefoot)				1			
<b>Wetland plants</b>							
<i>Eleocharis</i> sp. (spike-rush)		1					
<i>Montain fontana</i> L. (blinks)		1					
<b>Tree/shrub macrofossils</b>							
<i>Corylus avellana</i> L. (hazel nutshell)	1						
<b>Other plant macrofossils</b>							
Charcoal <2mm	xxxx	xxxx	xxx	xxxx	xxx	xxx	xx
Charcoal >2mm	xxxx	xxx	xxx	xxx	xxx	xxx	xx
Charcoal >5mm	xxx	xxx	xx	x		xx	x
<i>Quercus</i> sp. (Oak charcoal)	xx	xx					
<i>Fraxinus excelsior</i> (Ash charcoal)	xx						
Charred root/stem				x			
Indet.fruit stone frag.				x			
Indet.seeds	x						
Other materials							
Black porous 'cokey' material	x		x				x
Black tarry material	x			x			x
Burnt/fired clay				x			
Ferrous globules						x	
Hammer scale						x	
Marine mollusc shell							xxxx
Vitrified material	xx	x	xx	x		x	x
Sample volume (litres)	20	20	3	10	10	10	2.5
Volume of flot (litres) retained on 500µm mesh	0.5	0.1	0.1	<0.1	<0.1	0.1	<0.1
% flot sorted	25	100	100	100	100	100	100

Key to Table: x = 1–10 specimens, xx = 10–50 specimens, xxx = 50–100 specimens, xxxx = 100+ specimens, indet = indeterminate

TABLE 3: Environmental remains from samples

vitreous material as well as black porous and tarry material which may derive from super heating organic fuels ('fuel-ash slag') and the combustion of organic remains such as cereal grains.

#### *Middle Saxon*

Cereal grains were abundant in pit [42]. Barley, including some asymmetrical lateral grains of six-row barley, and wheat were common, although oats and rye were also noted. Brome (a common contaminant of cereal crops), spike-rush and

blinks (both plants common within areas of damp grassland) provide limited evidence for wild/weed plants. Woody taxa are represented by oak and ash charcoal (both are eminently suitable fuels) and a hazel nutshell fragment. Pit [101] however, part of the same group of features, contained very few identifiable plant macrofossils.

These assemblages appear to derive largely from small deposits of mixed refuse, including some industrial detritus and possible domestic/hearth waste. The grains may have been accidentally spilled during culinary preparation, and the

lack of chaff possibly indicates that the cereal was imported to the site in a ready-processed state, by occupants engaged in activities other than food production.

## DISCUSSION

Although of relatively small scale, excavation at the former Croxley Works site has nonetheless provided significant information that furthers understanding of the early development of Maldon. Other than very limited interventions around St Mary's Church, this site provided the first opportunity for archaeological work in Church Street and the general area of the Hythe. A subsequent evaluation undertaken at 28 The Hythe proved negative for remains of Saxon or medieval date, probably because of substantial modern disturbance (Holloway *et al.* 2010).

### Late Iron Age/ Roman

The presence of residual Late Iron Age pottery implies rural settlement or agricultural activity was taking place on the higher ground in the vicinity at this time, presumably contemporary with the low-lying settlement at Elms Farm, Heybridge, on the opposite side of the river. The occurrence of residual Roman brick and tile is perhaps more interesting, particularly as there was no accompanying Roman pottery. It is probable that quantities of ceramic building material were brought into the town in the Middle and later Saxon periods for use as building material or hardcore. A similar small quantity of Roman brick and tile was noted at the nearby Former Bus Station site (Ennis 2015) and is present in the fabric of St Mary's Church (Ryan 1996, appendix 2). The most likely source of this material was the Roman town at Elms Farm, c.1.5km upstream from the Hythe, though Roman pottery recovered from test-pitting within St Mary's churchyard (EHER 7948) suggests the possibility of an underlying Roman site in far closer proximity.

### Middle Saxon

The excavation provides the first instance of stratified Middle Saxon remains from within the town of Maldon. These would appear to be part of an area of occupation on the river terraces above what is now the Hythe, perhaps inhabited by fishermen or traders who used the nearby shore to land their catch/goods. The size of this settlement is hard to ascertain from the limited extent of these recorded remains; however, the lack of stratified Middle Saxon evidence from other excavated sites in the eastern half of the High Street suggests that the area of this early occupation may have been focused towards and along the river frontage. Curving ditch [71] may be informative in this respect as it appeared to mark a significant boundary continuing both east and south of the site, perhaps providing a western limit to the initial (Phase 2.1) occupation area.

Later in the Middle Saxon period, ditch [71] was infilled and occupation expanded beyond its bounds though perhaps to no major extent as only one feature of possible Middle Saxon date was identified in Trenches 1 and 2 beyond. In Trench 3, evidence for this expansion consisted of several rubbish pits and post-holes, some of which may have formed part of a short fence-line broadly aligned north-west to south-east.

The recovered finds are fairly typical of the Middle Saxon period, with similarities to those from contemporary sites such as Wicken Bonhunt (Wade 1980) and Ipswich (Wade 1988).

Artefacts of a domestic nature include Ipswich-type ware pottery, a spindle whorl and a collection of loomweights. The pottery included jars used for cooking and storage, whilst the spindle whorl and loomweights indicate textile production. The recovery of slag and hammerscale suggest metalworking in the form of low-level iron smithing was also taking place. If the large lump of lime mortar in pit [42] is unused residue from a mortar mixer, indicative of construction work taking place in the vicinity, the presence of a stone building, presumably of some status, could be construed; perhaps a minster church or royal hall which would not be impossible given that Maldon has been identified as the site of a royal *vill* (Rippon 1996). However, there were no finds of high status or associated with literacy or learning, such as styli, to support this. Indeed, building techniques of a more vernacular and mundane nature are evidenced by fragments of wattle/wicker impressed daub from former timber structures.

The faunal assemblage appears to be largely derived from domestic waste and indicates the mixed nature of the inhabitants diet with both land-based and marine food sources being exploited, the latter not unexpected given Maldon's position at the head of the Blackwater estuary. Land-based food sources predominately consisted of sheep/goat, pig and cattle, supplemented by cereals, mainly in the form of wheat and barley. A lack of chaff possibly indicates that the cereal was brought into the settlement in a ready-processed state, perhaps understandable if this was a predominantly fishing and trading settlement. Marine food sources included eel, cod, flatfish and herring all of which could have been caught in the Blackwater Estuary, perhaps at one of the seven known fishtrap sites that broadly date to this period (Heppell 2011). Wild oysters were also eaten but did not form a significant part of the diet.

Previously, it had generally been assumed that the town developed in the 10th century outside of the east entrance of the burh constructed by King Edward the Elder in AD 916, although it was also known that some form of settlement, perhaps a royal *vill*, was already in existence as the king had camped at Maldon three years earlier whilst a burh was constructed at Witham. The assumption was supported by the findings of excavations at three sites at the west end of the High Street: the Chequers Public House (Harding forthcoming), Tesco (EHER 7725) and Lloyds Bank (EHER 7722), which all produced evidence of Late Saxon occupation, including a timber hall dating to the 10th century at the Tesco site. The Croxley Works site has now provided evidence of occupation in the Middle Saxon period which pre-dates these sites by perhaps one or two hundred years and suggests that settlement within the town may have originated in the Hythe area rather than at the west end of the High Street. However, the exact nature of the Middle Saxon occupation cannot currently be determined and indeed the excavated remains appear to be located on the very western periphery of this activity area. It is presumed that this occupation forms part of a settlement that is the fore-runner to the Late Saxon town, but whether this is a small port occupied by traders or fishermen, part of a royal estate or had a monastic function has yet to be determined.

### Late Saxon/early medieval

Most of the remains belonging to the Late Saxon/early medieval period are poorly dated with the exception of boundary gully [38/92] in Trench 3 which can relatively confidently be dated

to the 11th century. This gully, if it continued southwards, may have formed the eastern boundary to a property running perpendicular to Church Street and containing the potentially contemporary remains in Trenches 1 and 2. These remains are broadly dated to the 10th–13th century on fairly minimal evidence, or are deemed so by association. In this period, the emphasis of activity has clearly shifted to the south of the site, perhaps indicating that the position of Church Street was formalised by this time. Documentary evidence certainly suggests that St Mary's Church was in existence by AD 1056.

The Late Saxon remains included a timber structure evidenced by the line of north to south post-holes, either part of a building or fence-line, with an east to west gully forming a property sub-division to the immediate south. Finds of a domestic nature include a small quantity of pottery and the bone comb. There was no evidence for textile production although the recovery of slag, smithing flakes and hammerscale indicate that, as in the preceding period, low-level iron smithing was taking place. The diet was also broadly similar with faunal remains indicating both land-based and marine food sources were being exploited.

Evidence from the former Bus Station site (Ennis 2015), 168–70 High Street (Andrews and Stenning 1989) and from Croxley Works itself, all suggest that the area around the Hythe was extensively developed by the end of the Late Saxon period. However, given that Late Saxon development along the High Street does not appear to be continuous (Ennis 2015), it is likely that this development was localised around the church and Hythe whilst the greater part of the Late Saxon town developed at the western end of the High Street.

### Medieval/post-medieval

Medieval features were more widely spread across the site. Most were firmly dated to the 13th to 14th century. One pit in Trench 1 may be later, as it was dated as 14th to 16th century, though is perhaps more likely to date to the beginning of this range. The majority of the pits were located north of possible east to west boundary ditch [29] in Trench 1 and are likely to represent rubbish disposal towards the rear of established properties, although no accompanying structures of medieval date were identified. There were no metallurgical finds from the medieval contexts. In general both the artefact and ecofact assemblages were smaller, a result of a less intense sampling strategy, rather than a significant trend. Little can be said on medieval diet other than that the faunal assemblages from the Saxon and medieval periods were similar in terms of animal types present. Maldon's function as a port in the medieval and post-medieval periods is evidenced by the presence of pottery from Yorkshire, London and the Low Countries.

The 13th–/14th-century pits provide further evidence, along with intermediate sites such as 127–129 High Street (Carew *et al.* 2011), 143–147 High Street (EHER 47219) and the former Bus Station (Ennis 2015), that by this time development extended all the way down the High Street from the east entrance of the former burh to the Hythe. A lack of later medieval and early post-medieval features suggests a hiatus in occupational use over much of the site perhaps lasting until the 18th or 19th century. A build-up of topsoil overlying the medieval features suggests that during this time much of the site may have reverted to agricultural or horticultural use. A similar pattern of events was noted at the former Bus Station

site (Ennis 2015) and at 127–129 High Street (Carew *et al.* 2011, 113).

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### BIBLIOGRAPHY

- Andrews, D.D. and Stenning, D.F. 1989, 'Wealden Houses and Urban Topography at the Lower End of Maldon High Street', *Essex Archaeol. Hist.*, 3rd ser., 20, 103–109
- Atkinson, M. and Preston, S.J. 1998, 'The Late Iron Age and Roman settlement at Elms Farm, Heybridge, Essex, excavations 1993–5: an interim report', *Britannia*, 29, 85–110
- Bedwin, O. 1992, 'Early Iron Age settlement at Maldon and the Maldon Burgh: excavations at Beacon Green 1987', *Essex Archaeol. Hist.*, 3rd Ser., 23, 10–24
- Blackmore, L. 2008, 'The Accessioned Finds' in Cowie, R. and Blackmore, L. *Early and Middle Saxon Rural Settlement in the London Region*, MoLAS Monogr. 42, 193–211 (London)
- 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
- Cotter, J. 2000, *The post-Roman pottery from excavations in Colchester 1971–85*, Colch. Archaeol. Rep. 7
- Cunningham, C.M. 1985, 'A typology for post-Roman pottery in Essex', in Cunningham, C.M. and Drury, P.J., *Post-medieval sites and their pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeol. Trust Rep. 5, Counc. Brit. Archaeol. Res. Rep. 54, 1–16
- Drury, P.J., Cunningham, C.M., Kilmurry, K and Walker, J.S.F. 1993, 'The later Saxon, medieval and post-medieval pottery', in Rodwell, W.J. and Rodwell, K.A., *Rivenhall: Investigations of a Villa, Church and Village, 1950–1977*, Chelmsford Archaeol. Trust Rep. 4.2., Counc. Brit. Archaeol. Res. Rep. 80, 78–95
- Ennis, T. 2015, 'Late Saxon and Medieval Occupation at the Former Bus Station, 148–152 High Street, Maldon: Excavations 1999', *Essex Archaeol. Hist.*, 4th Ser., 6, 289–311
- Farmer, P.G. 1979, *An Introduction to Scarborough Ware and a Re-assessment of Knight jugs* (Sussex, Farmer and Farmer)
- Goffin R. 2003, 'The Loom Weights' in Malcolm, G., Bowsher, D. and Cowie, R., *Middle Saxon London. Excavations at the Royal Opera House 1989–99*, MoLAS Monogr. 15, 216–22 (London)
- Harding, C. forthcoming, 'Early medieval buildings and the Chequers public house, 60 High Street, Maldon: excavations, 1987', *Essex Archaeol. Hist.*, 4th Ser.
- Haslam, J. 2015, 'The two burhs of Maldon, Essex, and their antecedents', *Essex Archaeol. Hist.*, 4th Ser., 6, 312–328
- Heppell, E.M. 2011, 'Saxon fishtraps in the Blackwater Estuary, Essex: monitoring survey at Collins Creek, Pewet Island and The Nass 2003–2007', *Essex Archaeol. Hist.*, 4th Ser., 2, 76–97
- Holloway, B., Adams, G. and Brooks, H. 2010, *An archaeological evaluation at 28 The Hythe, Maldon, Essex*, unpubl. Colch. Archaeol. Trust report 533
- Hurst, J.G. 1959, 'Middle-Saxon Pottery', in Dunning, D.G., Hurst, J.G., Myres, J.N.L. and Tischler F. 'Anglo Saxon Pottery: a Symposium', *Medieval Archaeol.*, 3, 13–31
- Hurst, J.G. 1976, 'The pottery', in Wilson, D.M. (ed.) *The Archaeology of Anglo-Saxon England*, 283–348 (London, Methuen)
- MacGregor, A., Mainman, A.J. and Rogers, N.S.H. 1999, *Craft, Industry and Everyday Life: Bone, Antler, Ivory and Horn from Anglo-*

- Scandinavian and Medieval York* (The Archaeology of York: The Small Finds 17/12)
- Medlycott, M. 1999, *Maldon: Historic Towns Assessment Report*, (Essex County Council Archaeology Section Internal Report)
- Pearce, J.E. and Vince, A.G. 1988, *A dated type-series of London medieval pottery part 4: Surrey whitewares*, Trans. London Middlesex Archaeol. Soc. special paper no.10
- Rippon, S. 1996, 'Essex c.700–1066' in Bedwin, O. (ed.), *The Archaeology of Essex, Proceedings of the Writtle Conference*, 117–128 (Chelmsford)
- Rodwell, R. 1976, 'Some unrecorded archaeological discoveries in Essex, 1946–75', *Essex Archaeol. Hist.*, 3rd Ser., 8, 234–48
- Ryan, P. 1996, *Brick in Essex: from the Roman conquest to the Reformation* (Chelmsford, Pat Ryan)
- Schmid, E. 1972, *Atlas of Animal Bones: For Prehistorians, Archaeologist and Quaternary Geologists* (Amsterdam)
- Stace, C. 1997, *New Flora of the British Isles* (Second edition, Cambridge Univ. Press)
- Swanton, M. (Trans. and ed.) 2000, *The Anglo-Saxon Chronicles* (London, Phoenix Press)
- Tyler, S. 1986, Goldhanger, Note on Loomweights from Site 1 Chigborough Farm, in Priddy D. (ed.) 'Work of the Essex County Council Archaeology Section 1985', *Essex Archaeol. Hist.*, 3rd Ser., 17, 147–8
- Walton-Rogers, P. 2007, *Cloth and Clothing in Early Anglo-Saxon England, AD 450–700*, Counc. Brit. Archaeol. Res. Rep. 145 (York)
- Wade, K. 1980, 'A settlement site at Wicken Bonhunt', in Buckley, D.G., *Archaeology in Essex to AD 1500*, Counc. Brit. Archaeol. Res. Rep. 34, 96–102 (London)
- Wade, K. 1988, '13 Ipswich', in Hodges, R. and Hobbley, B. (eds), *The rebirth of towns in the west AD 700–1050*, Counc. Brit. Archaeol. Res. Rep.68, 93–100 (London)
- West, S.E. 1963, 'Excavations at Cox Lane (1958) and at the town defences, Shire Hall Yard, Ipswich (1959)', *Proc. Suffolk Institute Archaeol.*, 29, 233–303
- Williams, J.H. 1979, *St Peter's Street, Northampton: Excavations 1973–1976* (Northampton)





# Medieval riverside development at Chelmsford: excavations at the Meadows Multi-storey Car Park, 1991, and other sites on Baddow Road

**Patrick Allen**

With contributions by Joyce Compton, Julie Curl, Val Fryer, Nick Lavender, Hilary Major, Peter Murphy, Helen Walker and Paul Williamson. Illustrations by Iain Bell, Andrew Lewsey and Nick Nethercoat

*Excavation of a group of sites along Baddow Road, Chelmsford, on the south bank of the River Can, has provided evidence for the development of a suburb of the medieval town from the 13th to 16th centuries. This spans the period from the foundation of Chelmsford as a market town in 1199 to the first overview of the town as shown on John Walker's map of 1591. The report describes a sequence of 13th-century flood defences and reclamation along the south bank of the River Can immediately downstream of its bridge, leading to the development from the mid-13th century of Baddow Road and related timber buildings. In the 14th century Baddow Road was extended to the south-east on its present line as a result of reclamation of a silted channel of the Can. Two medieval buildings on Baddow Road are interpreted as a bakehouse and a maltster's, and pits on the edge of the built-up area may represent a dyer's establishment. It is argued that landing places on the Can provided transshipment points for shallow-draught river craft, and that Baddow Road was a focus for transporting agricultural produce into medieval Chelmsford. The development of Baddow Road and its waterfront in the 13th and 14th centuries reflects the rapid growth of Chelmsford at this time, followed by a slowing in development in the late medieval period. An outstanding find is a 12th-century carved bone sword pommel accidentally lost in the vicinity of the Can bridge.*

## INTRODUCTION

### The study area

This report describes the results of a group of excavations along Baddow Road, Chelmsford, which runs along the south bank of the River Can (Fig. 1; TL 710 064). These sites represent a distinct suburb of the medieval town and provide a detailed record of the reclamation of the south bank of the Can and the development of Baddow Road. Roman activity in this area has already been published (Wickenden 1992) and the current report describes medieval and early post-medieval development from c.1200 up to 1591, when the first map of Chelmsford was produced by John Walker. Later post-medieval development is archaeologically less significant and is summarised. The main results described are based on the excavations at the Meadows Multi-storey Car Park, Baddow Road, 1991 (site CF14) and 16 Baddow Road, 1978 (site AS). Two other investigations, at the Salvation Army, 70 Baddow Road, 2008 (site CF56) and the Odeon Roundabout, Parkway, 1970–1 (site K) are described summarily. Finds and environmental reports are based mainly on assemblages from the Meadows Car Park and 16 Baddow Road, with material from the other sites reported on only where significant. Details of each site are given in an introductory section to the site description, including references to supporting archive reports. The archives and finds for all the sites are held by Chelmsford Museum under the site codes cited above.

### Topography and geology

Chelmsford was established on the Roman road from London to Colchester at the crossing of the rivers Can and Chelmer, immediately upstream of their confluence. It is situated in a shallow basin in which the Can and its tributary, the Wid, join the Chelmer, which then flows eastwards into the Blackwater estuary. In the Chelmsford area these rivers emerge from the boulder clay plateau which formed over north and

central Essex in the Anglian glacial period, and follow the line of a 30m-deep drift-filled channel cut into London Clay, a tunnel valley formed by melt water at the edge of the ice sheet (Bristow 1985, 35–6). Boreholes at the Meadows Car Park (report in archive) and at a second car park between the river and 37–47 Baddow Road (Allen and Heppell 2006) record the drift-filled channel as sealed by alluvial gravels of the present rivers, up to 3m thick. Beyond the limits of the floodplain the gravels form a terrace, capped by a layer of brickearth 1–2m thick (Bristow 1985, 62–5). The rivers follow a meandering course within a wide floodplain with extensive water meadows.

### Historical background

A detailed view of early post-medieval Chelmsford is provided by John Walker's map of 1591 (Essex Record Office (ERO) D/DM P1,2; Edwards and Newton 1985), a 'perspective' map which has been redrawn to provide a plan of the town at that date (Fig. 2), with a detail of the original showing the Baddow Road area (Plate 1).

Chelmsford's early history has been described in detail by Hilda Grieve (1988, 1–15). The Roman town was situated in the Moulsham area to the south of the crossing of the Can but was abandoned, and when the medieval market town was founded in 1199 it occupied a new site to the north of the Can, on rising ground between the Can and the Chelmer, now the modern High Street (Fig. 2). Chelmsford and Moulsham were two separate manors, held by the Bishop of London and Westminster Abbey respectively. Although the two settlements remained in separate ownership throughout the medieval period, after 1199 legally they formed the 'vill' of Chelmsford under a single jurisdiction (Grieve 1988, 5–6).

The original Roman bridges clearly became derelict and fell out of use. In the Late Saxon period the Roman road was still used on either side of Chelmsford and the Chelmer was fordable at the original Roman crossing point, but travellers

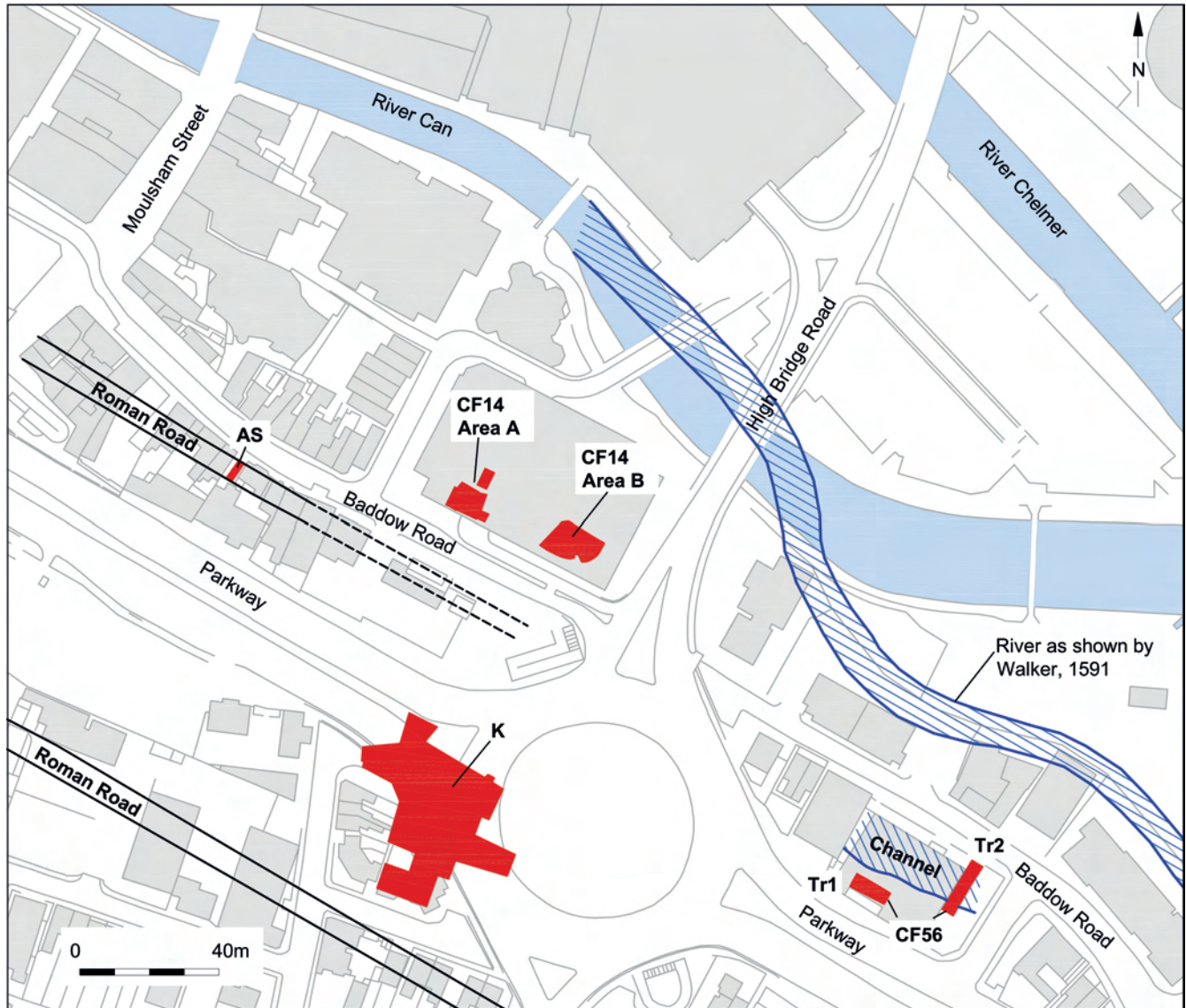


FIGURE 1: Location plan

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had to divert to the west via Writtle 3.5km (2 miles) upstream to cross the Can (Grieve 1988, 3–4). In 1086 the royal manor at Writtle was the major settlement in central Essex, worth over £100, while Moulsham and Chelmsford were small rural manors, worth only £12 and £8 respectively (Grieve 1988, 2–3). The River Can, fed by its tributary, the Wid, directly upstream of Chelmsford, was referred to in the medieval period as ‘The Great River’ and was a major obstacle due to flooding. The rebuilding of the bridge over the Can is attributed to Maurice, Bishop of London in 1100–7, and he may also have been responsible for rebuilding the bridges over the Chelmer, although there is no definite record of these until 1238 (Grieve 1988, 3–5). The bridges were presumably timber, but the Can bridge was rebuilt as an impressive three-arched stone structure in 1372 (Grieve 1988, 33–4). The rebuilding of the bridges and the reopening of the Roman road through Chelmsford was a critical factor in the founding of the medieval town in 1199 and its eventual replacement of Writtle as a market centre.

Walker’s map of 1591 (Plate 1 and Fig. 2) shows Baddow Road on its modern alignment, leading east-south-east from the main London-Colchester road along the south bank of the River Can. As well as providing a through-route via Great

Baddow to Maldon and south east Essex, Baddow Road formed an important local link with Moulsham Mill. In 1591 houses lined the road on its south side for a short distance from the junction with the London-Colchester Road, with an orchard on its north side, between the road and the River Can. The buildings at the limits of the settlement were either barns or cottages in smallholdings.

### The Roman background

The Roman temple precinct was situated on the south bank of the River Can beneath the modern Odeon Roundabout on Parkway (Fig. 1, site K; Wickenden 1992). There is evidence of sub-Roman occupation of the temple, but by the early medieval period it had been demolished and its foundations extensively robbed (Wickenden 1992, 39–42). However, a minor Roman road aligned immediately to the south of Baddow Road (Fig. 1, site AS) was probably still visible in the early medieval period, and despite flood disturbance may have remained in use as a rough track (Wickenden 1992, 50–3). The relationship of the Roman road with subsequent medieval development is discussed below (see 16 Baddow Road (AS)).



PLATE 1: Detail of John Walker’s map of Chelmsford, 1591, showing Baddow Road

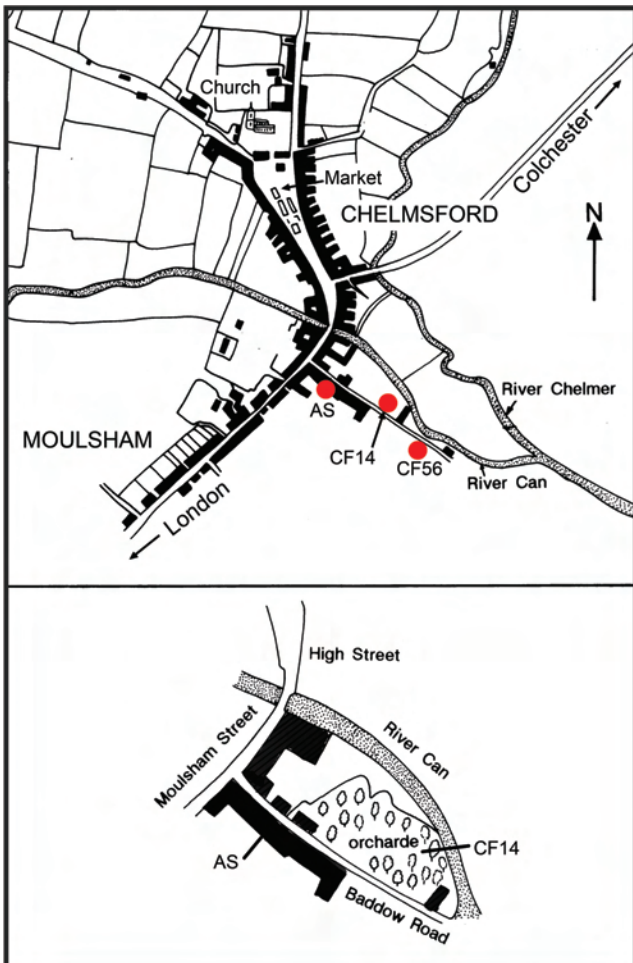


FIGURE 2: Chelmsford and Moulsham as mapped by John Walker in 1591 (redrawn)

The Roman road was only local, probably serving a wharf or landing stage on a bend of the River Can (Wickenden 1992, 132–3 and fig. 1), and its projected continuation further east has now been discounted (Allen and Pocock 2008). Roman riverside development must have been limited, as there is no evidence of Roman riverside reclamation or timber waterfront structures at the Meadows Car Park site (Fig. 1, CF14), and the only Roman features there were gravel quarries dug at the edge of the river floodplain (Allen and Lavender 2015, period VII, 3rd–4th century).

### Phasing and site sequences

The sites have been phased following a system developed for Chelmsford in previous reports published by the Chelmsford Archaeological Trust. Major period divisions (*e.g.* period X, 13th to 14th century) apply to all sites across the town. Sub-phases within town periods (*e.g.* period X.1, X.2 etc) apply only to individual sites, so that period X.2 on one site may not be exactly contemporary with period X.2 on another. The town periods covered by this report are listed below.

Period IX	c.1000–1200
Period X	c.1200–1400
Period XI	c.1400–1590
Period XII	c.1590–1700
Period XIII	c.1700–1800

The individual site sequences are summarised, including their relationship with the River Can and its floodplain, and previous Roman activity on the riverbank (Table 1).

<b>MEADOWS CAR PARK (CF14)</b>	<b>16 BADDOW ROAD (AS)</b>	<b>SALVATION ARMY (CF56)</b>	<b>ODEON ROUND-ABOUT (K)</b>
<b>River</b> Floodplain, always wet	<b>River</b> Edge of floodplain	<b>River</b> River channel	<b>River</b> Edge of floodplain
<b>Roman</b> Gravel quarries	<b>Roman</b> Minor road	<b>Roman</b> Riverbank dumping	<b>Roman</b> Temple precinct
<b>Post-Roman</b> Floodplain silts	<b>Post-Roman</b> Periodical flooding	<b>Post-Roman</b> River channel silting	<b>Post-Roman</b> Periodical flooding
<b>X.1 Early/mid-13th C</b> Gravel hard and flood drain	<b>X.1 Early/mid-13th C</b> Clay bank and levelling		<b>IX–X Late 12th 14th C.</b> Gravel quarry, boundary gully/ditches and water-filled pits. Dyer's establishment?
<b>X.2 Mid/late 13th C</b> Reclamation and trackway	<b>X.2 Mid-13th 14th C</b> Earliest surfaces of Baddow Road and Building 1		
<b>X.3 Late 13th/early 14th C</b> Building 1. Bakehouse?			
<b>X.4 14th C</b> Building 2		<b>X 14th C</b> River channel silted up, planked box-revetment and reclamation	
<b>X.5–XI.1 Late 14th mid-16th C</b> Pits and roadside ditch.	<b>X.3–XI.1 Later 14th 15th C</b> Building 2 and corn drier	<b>XI 15th 16th C</b> Reclamation above river channel	<b>XI 15th 16th C</b> Flooding, cultivated soil, boundary ditch
<b>XI.2 Later 16th C +</b> Orchard soil	<b>XI.2 16th C</b> Building 2 and yard		
<b>After 1591</b> Orchard, gravel quarry	<b>XI.3 Later 16th C +</b> Building 3 and yard	<b>After 1591</b> No evidence	<b>After 1591</b> No evidence
	<b>After 1591</b> Later building phases		

TABLE 1: Site sequences, phasing and dating

**MEADOWS MULTI-STOREY CAR PARK, BADDOW ROAD (CF14)**

Patrick Allen and Nick Lavender

**Introduction**

A sequence of medieval riverside reclamation and timber buildings was recorded between the south bank of the River Can and Baddow Road, formerly the site of the Odeon Cinema but now occupied by the Meadows Multi-storey Car Park (Fig. 1; TL 7106 0641). The site was excavated in advance of redevelopment between February and April 1991 by the Essex County Council Archaeology Section under the direction of Patrick Allen and Nick Lavender. Desk-based assessment and trial trenching had established that medieval deposits survived on the north side of Baddow Road but that the south bank of the River Can had been extensively disturbed by construction works for the 1960–2 flood relief scheme (Essex CC 1989; 1990). A small area of controlled excavation (area A), measuring 12 × 8m with a 5m-long extension to its north, was supplemented by salvage excavation and watching-brief recording elsewhere. A second area in the east of the site (area B) was disturbed by an 18th-century gravel quarry so was investigated by machine-cut trenches, with only a small area of surviving medieval deposits excavated by hand. The following is based on an archive report prepared in 1994 and recently revised (Allen and Lavender 2015), held in the Essex Historic Environment Record.

**The south bank of the River Can**

The Can runs to the north of the excavated areas and towards the eastern limit of the site forms a pronounced bend to the south (Fig. 1). Walker's map of 1591 shows the Can following a similar course a little to the south of the modern river. The river has been canalised as a result of medieval reclamation and the 1960–2 flood relief scheme, but the original south bank ran a short distance to the north of Baddow Road and included a wide area beyond the main river channel that was under water.

Alluvial gravels beyond the limit of the river floodplain were exposed in area A at 21.7m OD and their surface, disturbed by the overlying floodplain deposit, was recorded in section in area B at 21.6m OD (Fig. 6, S.1, 127). The gravels were overlain by a floodplain deposit of blue-grey silt-clay (124, 182), 0.2m thick, mixed with sand and pebbles at its edge, and stained brown at its surface by wood fragments and other floating plant debris. Analysis of plant remains sampled from the flood deposit confirms that the river bank was a damp grassland habitat subject to flooding (see Plant Macrofossils report). The edge of the floodplain deposit was recorded in the north of both areas A and B, extending to within 13m and 10m of Baddow Road respectively. These limits reflect the southerly bend of the river at this point, and an area between 30m and 50m to the south of the river channel would have been permanently covered with floodwater.

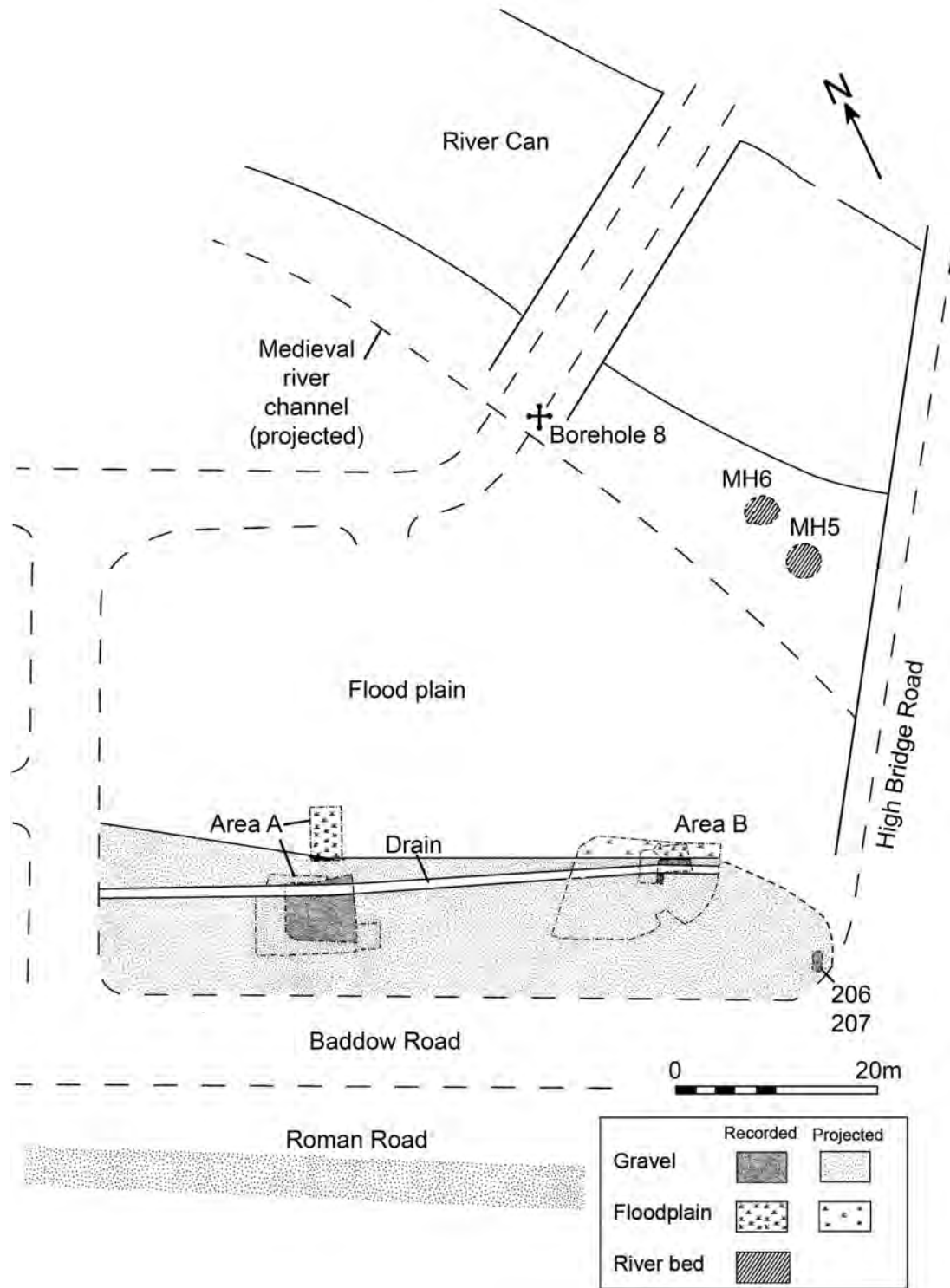


FIGURE 3: Meadows Car Park (CF14), period X.1

The southern edge of the original river channel can be traced from borehole and watching-brief records, immediately to the south of the course shown on Walker’s map of 1591 (Figs 2, 3). Borehole 8 recorded grey sand with pockets of fine gravel and slightly peaty clay down to 20.8m OD, 0.8m below the level of the river bank beyond the edge of the floodplain. This represents erosion of the edge of the river channel where it cut deeper than the floodplain. Further east, blue-tinged grey silt-clay (201) was recorded in manholes 5 and 6 to a depth of 20.6m OD, over 1m below the river bank beyond the

floodplain, and this must represent natural silting within the river channel.

**Period X.1: Riverbank reclamation and flood drain (early/mid-13th century)**

A rammed gravel surface containing frequent river-worn cobbles (9, 123, 207) was laid over the alluvial gravels and Roman gravel quarries, extending for at least 55m along the southern edge of the river floodplain (Fig. 3). It was up to 0.2m thick and followed the gentle slope down to the edge of the

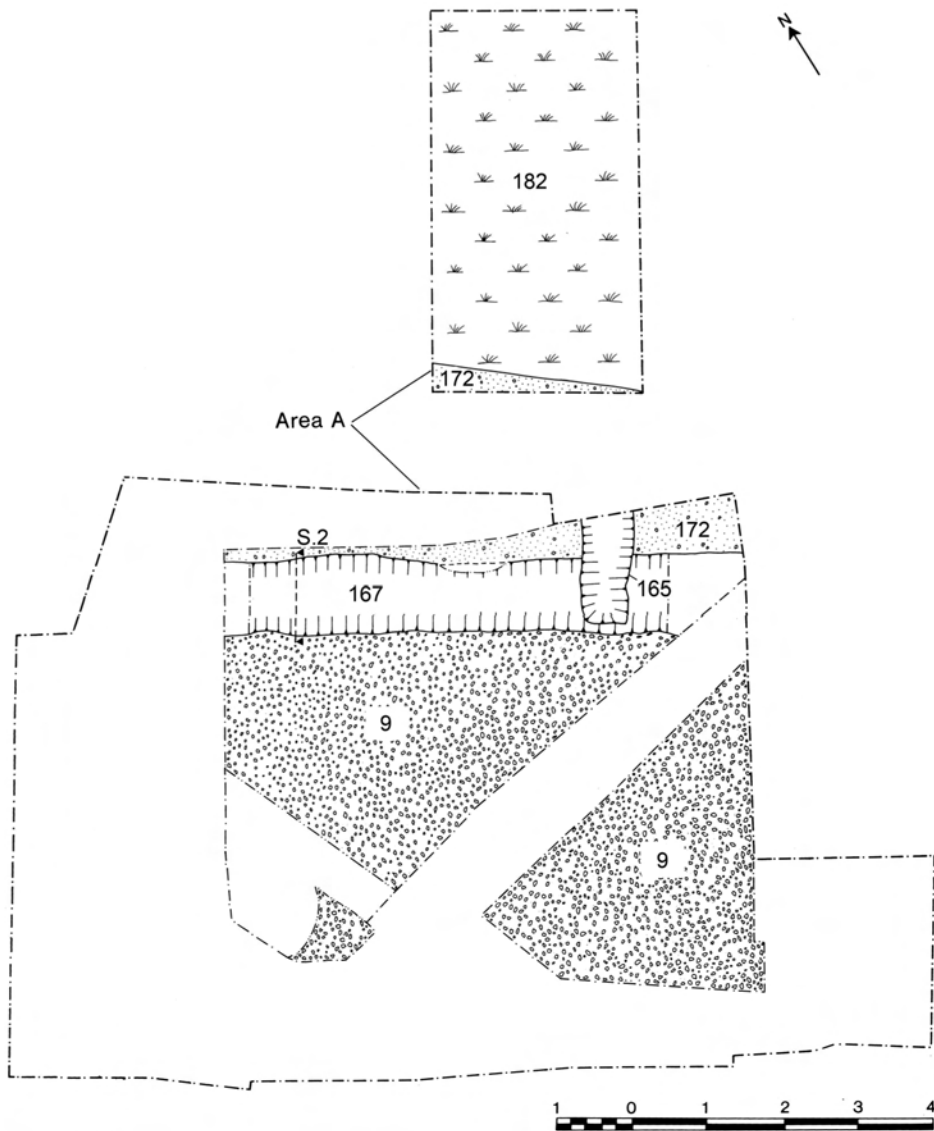


FIGURE 4: Meadows Car Park (CF14), area A, period X.1

floodplain, from 22.0m to 21.8m OD, consolidating the existing river bank. In area A the gravel was laid precisely up the edge of the floodplain (Fig. 4), but in area B to the east (Fig. 5) it overlapped the floodplain deposit by 2m (Fig. 6, S.1, 123). In area B the edge of the gravel became iron-panned through being washed by floodwater (Fig. 6, S.1, 122, 121), but the absence of a silt-clay flood deposit above the wider expanse of gravel in area A suggests that it was never permanently flooded.

The northern edge of the gravel surface was reinforced by laying further gravel which became mixed with flood silts and was iron-panned through repeated inundations (120, 172). Silty gravel was also recorded above the main gravel surface in a watching-brief section in the south east of the site (Fig. 3, 206), suggesting that this area was also washed by flood deposits and therefore represents the eastern edge of the gravel. A drain aligned east to west (119, 167), 1m wide and 0.3m deep, was cut through the gravel surface in both areas A and B. It was filled with grey-brown sandy silt-clay flood deposits (Fig. 6, S.1, 118; S.2, 171, 168, 163). The drain would have operated as a flood break, as there is a sharp contrast between the clean gravel surface to the south and the flood deposits to the north. After it had largely silted the drain was cut by a series

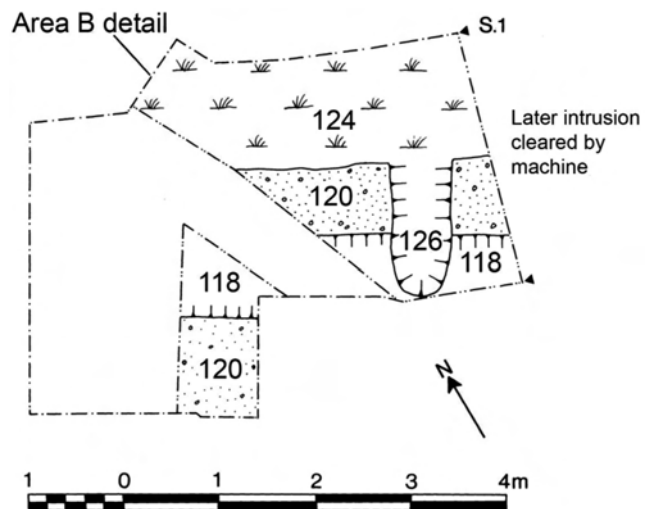


FIGURE 5: Meadows Car Park (CF14), area B, period X.1

of shallow channels aligned north to south (126, 165) to carry floodwater back towards the river. The northern edge of the gravel was overlapped by a final clay-silt flood deposit 0.2m

thick (Fig. 6, S.1, 117), and channels 126 and 165 became filled with brown-grey organic sandy silt-clay (125, 166).

*Discussion*

The gravel surface and flood drain represent a major reclamation of the south bank of the Can immediately downstream of the bridge. This development not only controlled river flooding but would also have served as a hard on which to beach boats. Analysis of plant remains from the fill of the period X.1 drain again confirms that the riverbank was a wet grassland habitat, although the drain appears to have become clogged with rushes and sedge (see Plant Macrofossils report). A firm disuse date for period X.1 is provided by pottery dated to after c.1200 in flood deposit 117 and by pottery from the succeeding period X.2 which cannot be dated any earlier than the mid-13th century. The initial laying of the gravel hard is not closely datable and could have occurred in the later 12th century, although a date at the beginning of the 13th century is more likely, soon after the founding of Chelmsford as a market town in 1199. This is discussed further in the conclusions section at the end of the report.

**Period X.2: Riverbank reclamation and gravel track (mid-late 13th century)**

A layer of gravelly clay-silt (116, 158) 0.2–0.4m thick overlay the period X.1 gravel surface and flood deposits in both areas A and B, extending into the river floodplain itself (Figs 6, 7). It raised the ground level to 22.3m OD, marginally above the uppermost river deposits, which were recorded at 22.1–22.2m OD in borehole 8 and manhole 6 at the edge of the main river channel (Fig. 3). In area A, a 2m-wide track extended to the north towards the river (Fig. 7), although its full northern extent could not be recorded because of modern disturbance. It consisted of brown silty sandy gravel (98, 162, 179) on a

bedding of gravelly clay (156) in a trench (157) cut into the reclamation levelling (Fig. 6, S.3). A drain (91) 1m wide and 0.2m deep was cut along the west side of the track and was filled with sandy silt (150, 92). No features were visible at the top of the reclamation levelling in area B.

*Discussion*

A second major reclamation of the south bank of the Can raised the ground level marginally above that of the river and extended out into the river floodplain, most likely as far as the southern edge of the main river channel. A gravel track extended towards the river from Baddow Road, which was first laid out at this date (see 16 Baddow Road, period X.2), implying the existence of a wharf or landing stage. Unfortunately modern disturbance of the riverbank prevented investigation of any possible riverside structures. The reclamation levelling and track of period X.2 are dated by pottery to the mid-late 13th century.

**Period X.3: Building 1 and fire (late 13th to early 14th century)**

A layer of sandy and gravelly clay-silt (6, 81, 115) 0.3m thick overlay the period X.2 levelling in both areas A and B (Figs 6, 7, 8), raising the ground level to 22.7m OD, 0.5m above the river. In area A this levelling formed a platform for the construction of a timber-framed building with gravel and brickearth foundations (Building 1). The floor of the building was formed of patchy yellow brickearth (5), with a thick band of brickearth along the north edge of the area interpreted as a foundation for the north wall of the building. The levelling was cut by two foundation trenches for timber base-plates (65, 155), forming the east wall of the building and a short partition at right angles to it. Both foundation trenches contained a bedding layer of gravel (66, 154), and along the

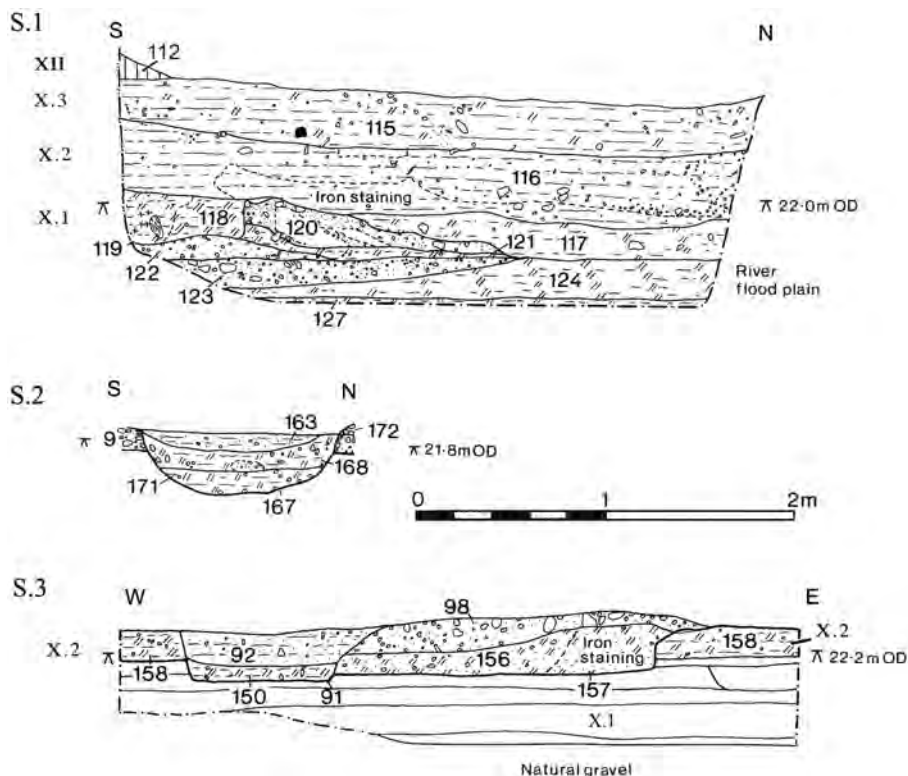


FIGURE 6: Meadows Car Park (CF14), sections 1–3

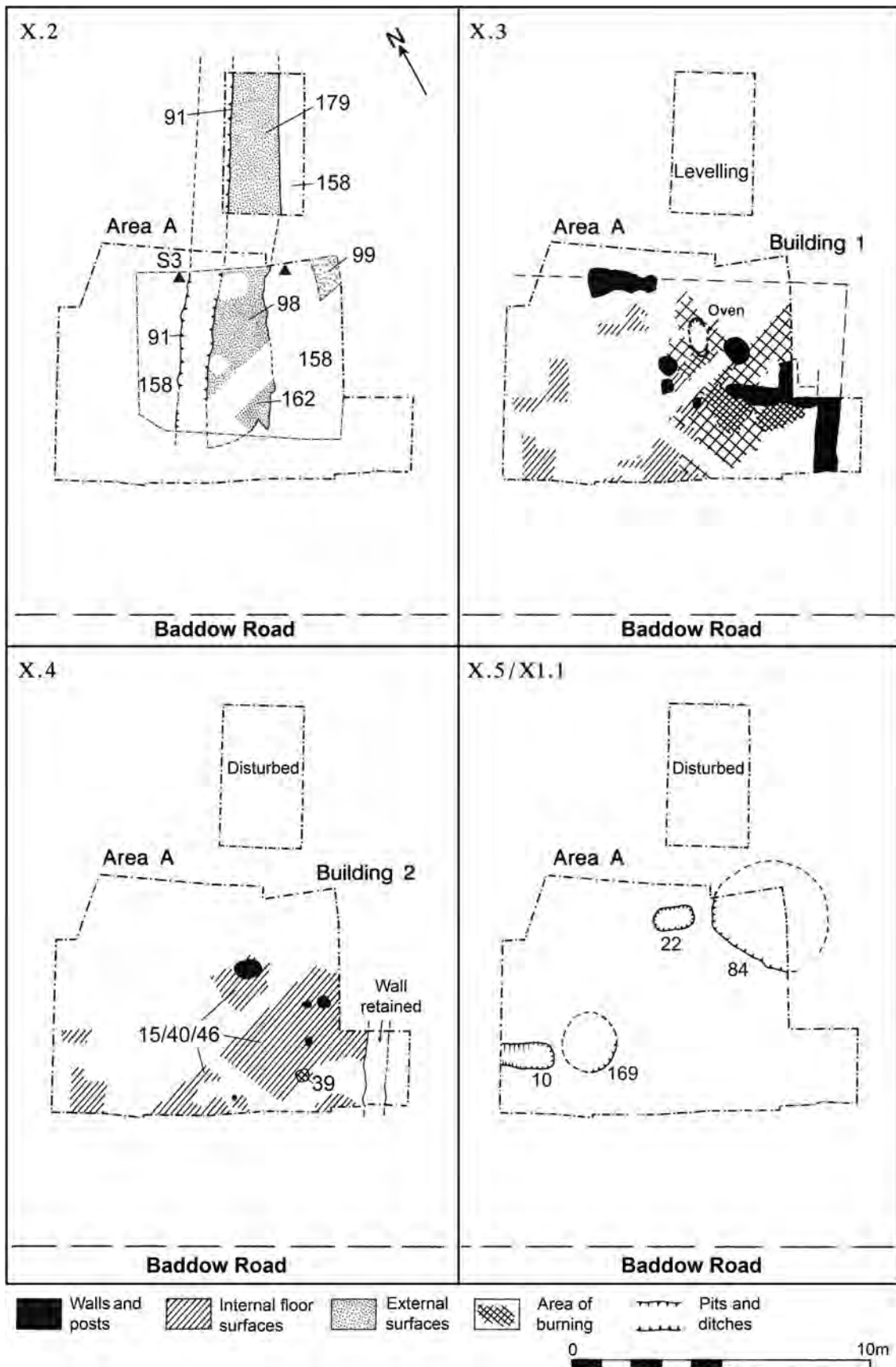


FIGURE 7: Meadows Car Park (CF14), area A, periods X.2, X.3, X.4 and X.5/X1.1

east wall this was capped by a thin layer of brickearth (153) with traces of a charred timber base-plate (151) above it (Fig. 9, S.5). The base-plate for the partition is represented by its robbed outline (65).

In the north of the building was a shallow sunken oven (80) and stoke-pit (76) (Fig. 8). Oven 80 had a scorched brickearth lining (79) and became filled with ash, charcoal and charred twigs (78) (Fig. 9, S4). The brickearth lining was



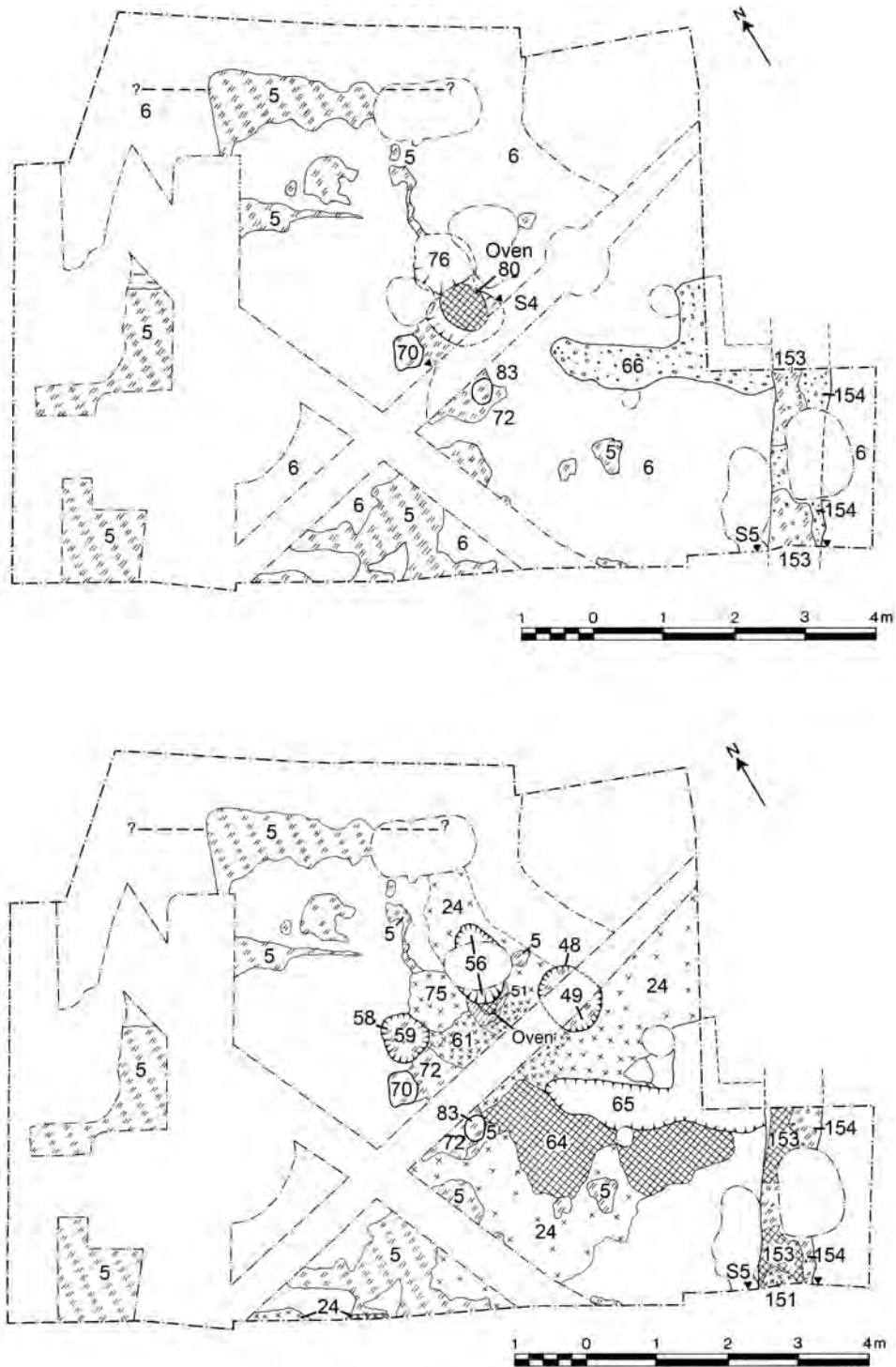


FIGURE 8: Meadows Car Park (CF14), area A, period X.3, construction and destruction

replaced (62), with an area of brickearth levelling (72) and two post-pads (70, 83) recorded to its south and west. Lining 62 was also scorched and both the oven and stokehole finally became filled with charcoal (61, 75). Oven 80 was replaced by a new oven immediately to the north east which survived as a scorched sandy clay-silt base (51), although most of it was removed (56) during clearance of the building. The new oven was flanked by a pair of large circular post-holes (48, 58), in which the posts would originally have rested on sunken brickearth pads (49, 59). The post-pads adjacent to the ovens are interpreted as supports for a smoke hood and a vent in the

roof of Building 1. The earlier post-pads (70, 83) related to oven 80 were aligned on partition 65/66 and it would appear that the smoke hood was integrated with the partition in a single structure. The later post-pads (49, 59) related to oven 51 represent a more substantial modification of this arrangement.

Building 1 was destroyed by fire. The floor surface was heavily scorched (24, 94, 97), with the densest scorching in and around partition 65 (64). Traces of a charred baseplate (151) were recorded on the line of the east wall, whose brickearth footing (153) was also heavily scorched (Fig. 9, S.5).

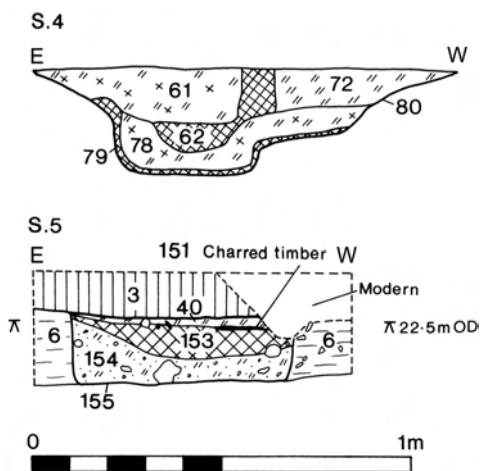


FIGURE 9: Meadows Car Park (CF14), area A, period X.3, sections 4–5

### Discussion

A third phase of reclamation of the south bank of the Can raised the ground level further above the river, and in area A a timber-framed building was constructed on the north side of Baddow Road (Building 1). The layout of the east and north walls of Building 1 is known, while the south wall fronting onto Baddow Road would have been located immediately to the south of the excavated area. Building 1 was aligned parallel with Baddow Road, measuring over 10m long by around 6m wide. A sequence of ovens in the north east corner of the building suggest that it was a bakehouse, as small amounts of charred cereal grain were recovered from the fills of oven 80 and the adjacent floor surface (see Plant Macrofossils report). An arrangement of post-pads suggests that the oven was provided with a smoke-hood and a vent in the roof, probably integrated with the partition extending from the east wall. Despite these precautions the building was destroyed by fire, with intense burning around the partition adjacent to the oven. The building's destruction debris, incorporated in the levelling for period X.4 (see below), included many fragments of baked clay wall finishing coated with whitewash (see Baked Clay report). Building 1 probably also had a tile roof (see Tile report). The reclamation levelling and Building 1 above it are dated by pottery to the late 13th to early 14th century. A notable find, residual in the period X.3 levelling, is a 12th-century carved bone sword pommel, reported on below.

### Period X.4: Building 2 (14th century)

In area A, Building 1 of period X.3 was cleared and its destruction debris was levelled to form a make-up for its successor, Building 2 (Fig. 7). The charred timber base-plates of the period X.3 building were removed and a layer of collapsed clay walling material in mixed silt-clay and charcoal (15) was spread over the eastern half of the area. A dirty yellow brickearth make-up (40, 46), in places mixed with charcoal (17, 18), was laid around the levelled debris, forming the floor of the new building. The make-up did not extend beyond the former east wall (Fig. 9, S.5, 40) and the wall line would have been reused in period X.4, but no evidence of any other wall lines survived. The only internal features were a small hearth or oven base (39) and a few post-holes and post-pads.

### Discussion

After the period X.3 building on Baddow Road had been destroyed by fire it was replaced in period X.4 (Building 2), reusing some of the debris of the earlier building as levelling material. Building 2 is much less well preserved than its predecessor but most likely represents a direct replacement. It appears to have been timber-framed, with its base-plates carried entirely above ground level. Period X.4 is dated by pottery to the 14th century.

### Period X.5/XI.1: Pits and roadside ditch (later 14th to mid-16th century)

Building 2 of period X.4 was not replaced and the site became open ground before the end of the 14th century. Three pits (22, 84, 169) and a shallow road-side ditch (10) all cut deposits of period X.4 (Fig. 7). Pits 84 and 169 contained 14th-century pottery which is considered to be contemporary rubbish. Pit 22 and ditch 10 are certainly later, containing pottery dated to the late 15th to mid-16th century.

### Development after 1591

The subsequent post-medieval development of the site is summarised here and full details are contained in the archive report. In both areas A and B the late medieval features were sealed by a thick layer of sandy loam with almost no inclusions (period XI.2), representing the orchard shown as covering the site area on Walker's map of 1591 (Plate 1 and Fig. 2). Pottery dating suggests that the orchard soil first formed in the mid-16th century and continued to form through the 17th century. Between the late 17th and early 19th century a large gravel quarry was dug in area B (period XIII).

### 16 BADDOW ROAD (AS)

#### Introduction

A sequence of medieval road surfaces and timber buildings was recorded at 16 Baddow Road, 60m to the west of the Meadows Car Park site (Fig. 1; TL 7100 0642). The site was excavated in advance of redevelopment in May–June 1978 by the Essex County Council Archaeology Section under the direction of B.R.G. Turner. A small trench measuring 6.4m × 2m was excavated at right angles to Baddow Road, and a machine-cut trench extending for a further 14m to the south was recorded in section, with limited excavation of a test pit at its south end. The Roman levels beneath the medieval sequence have already been published (Wickenden 1992). The following is based on an archive report by B.R.G. Turner (1981).

#### The south bank of the River Can

At the southern limit of the machine-trench, river gravels were capped by a layer of brickearth 0.4m thick, forming the natural ground surface at 22.7m OD, representing dry land at the edge of the original river floodplain. The brickearth was not present in the main trench at the Baddow Road frontage, probably as a result of erosion, and the surface of the river gravels was exposed at 22.3m OD, marginally above the level of the river floodplain as recorded at the Meadows Car Park site.

### Period X.1: Reclamation (early/mid-13th century)

The latest road surface of the Roman predecessor of Baddow Road was 0.3m higher than the adjacent Roman stratigraphy

and was directly overlain by medieval deposits (Figs 10, 11). This suggests that the road gravels survived intact while the surrounding deposits were eroded by flood scouring. The earliest medieval deposit was a blue-grey clay-silt bank (90), 0.4m high, in the extreme north of the trench (Fig. 11), which ran along the Baddow Road frontage. A series of homogenous dark grey silt-loam deposits (81, 86, 74), 0.4m thick, lay up against the bank and extended to the south, raising the ground level to 23.1m OD. They are interpreted as flood silts mixed with dumped levelling material.

*Discussion*

The site was affected by river flooding up to the early medieval period. The pre-existing Roman road was exposed by flood scouring, and was possibly used as a rough track at this time (Wickenden 1992, 53). The clayey bank 90 is interpreted as a flood barrier, enabling the area to its south to be levelled and

reclaimed. The period X.1 deposits are dated to the first half of the 13th century.

**Period X.2: Road surfaces and Building 1 (mid-13th to 14th century)**

In the extreme north of the trench, at the Baddow Road frontage, three successive gravel surfaces (84, 76, 73) formed the southern edge of the medieval forerunner of Baddow Road (Figs 10, 11). The earliest road, 84, was laid over a clay and silt levelling layer (85, 87) above bank 90 of period X.1, and was covered with washed sand (83) and a thin dark grey silt occupation deposit (82). A similar deposit (75) was recorded above road 76. To the south the site was levelled with a further layer of dark grey silt-loam (72), 0.2m thick, raising the ground level to 23.4m OD, 0.2m higher than the road. The front of a timber building (Building 1) was formed by a shallow wall trench along the road edge (77), ending in a pair

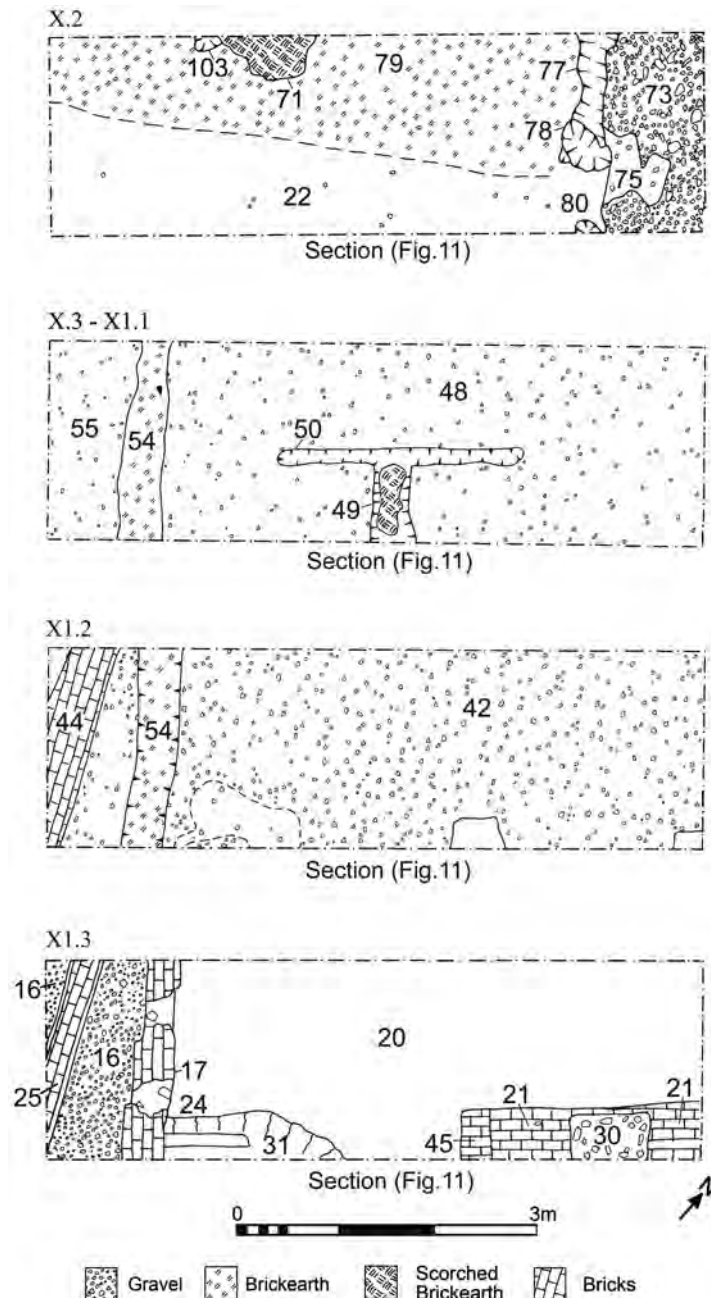


FIGURE 10: 16 Baddow Road (AS), periods X.2, X.3/XI.1, XI.2 and XI.3

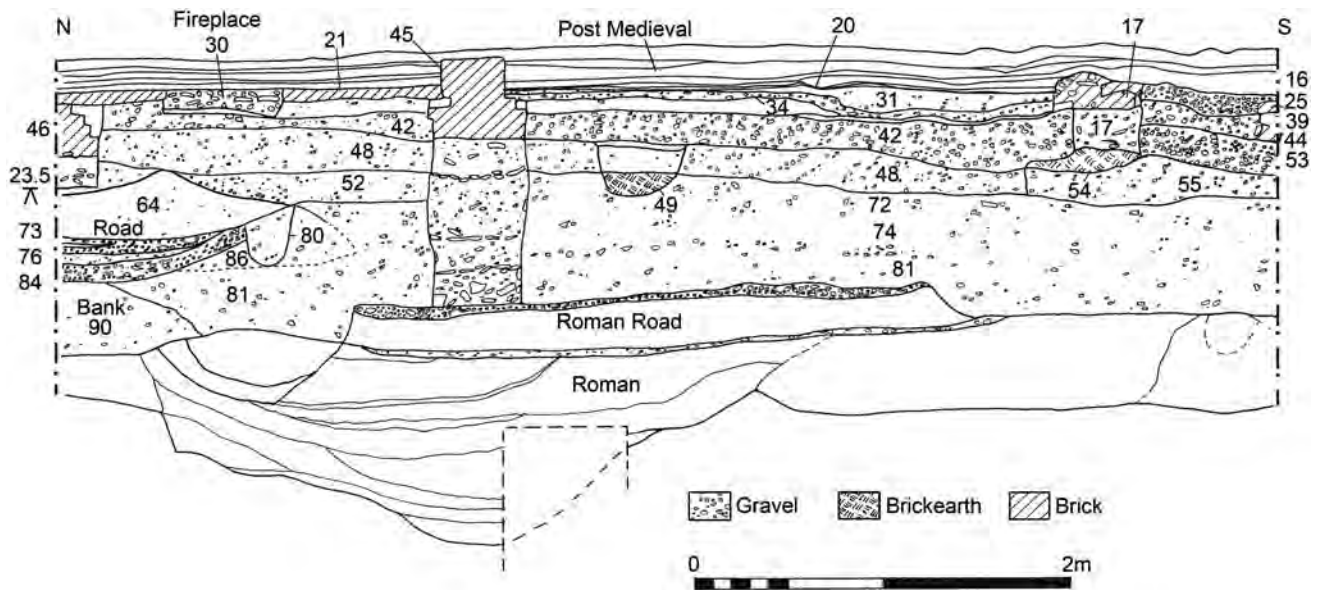


FIGURE 11: 16 Baddow Road (AS), east section

of large shallow post-holes (78, 80) which formed a doorway. Levelling 72 was capped by a thin patchy layer of brickearth (79) constituting an internal floor surface, with a scorched clay hearth (71). Floor 79 was traced for a further 0.5m to the south of the excavated area during watching brief recording, suggesting that Building 1 extended for 6m back from the road edge.

#### Discussion

In period X.2 the earliest surfaces of Baddow Road were laid down and a timber building was constructed at its southern edge (Building 1). The road was built on the line of the period X.1 bank interpreted as a flood barrier, and both the road and Building 1 were built up at least 1m above the level of the river as recorded at the Meadows Car Park. The period X.2 road and building are dated to the mid-13th to 14th century.

#### Period X.3/XI.1: Building 2 (later 14th to 15th century)

In the extreme north of the trench a bank of light grey-brown silt (64) was built up above the latest period X.2 road surface, encroaching upon the road edge by 1m (Figs 10, 11). This was presumably a foundation for a replacement road surface beyond the northern limit of excavation, beneath modern Baddow Road. To the south, Building 1 of period X.2 was overlain by successive levelling layers of dark grey clayey silt (52, 48), up to 0.4m thick, forming a new surface at 23.6m OD. The Baddow Road frontage was disturbed by later foundations, but a shallow clay foundation (54) 5.5m back from the frontage represents the rear wall of a building (Building 2). The shallowness of the foundation suggests that it was a sleeper wall for a timber-framed superstructure. A layer of silty sandy gravel (55) formed an external surface to the south of the wall. Within Building 2 was a T-shaped up-draught kiln whose main flue (49) was lined with heavily scorched brickearth. A shallow narrow channel at right angles (50), also lined with brickearth, represents sideways extensions of the flue to allow heat to circulate over a wider area. The flues were all filled with charcoal. In a test pit 14m to the rear

of the main trench a layer of dark grey silt-loam at least 1.5m thick (70, not illustrated) overlay the natural brickearth. It represents a gradual build-up of soil throughout the medieval period in a yard area to the rear of the buildings on the Baddow Road frontage. A pit (89) cut from within this soil build-up contained late medieval pottery.

#### Discussion

In period X.3–XI.1 the road would have lain entirely beneath modern Baddow Road. A new timber building was constructed (Building 2), of similar size to Building 1 of period X.2, but encroaching on the original road surface. The road and building continued to be raised above the river level as recorded at the Meadows Car Park. Kiln 49/50 within Building 2 is interpreted as the base of a malting floor, and an industrial use is considered unlikely due to the absence of slag or other waste. Pottery in levelling 52 suggests that the phase began in the later 14th century, but a small amount of the early type of post-medieval red earthenware in disuse deposits suggests an end date of the late 15th century.

#### Period XI.2: Building 2 refurbished (early/mid-16th century)

A levelling of loamy clayey gravel (42), up to 0.2m thick, formed a new surface at 23.7m OD (Figs 10, 11). In the south it ended at wall line 54, which is represented in section as a vertical-sided robber trench above the original clay footing, filled with foundational packing for the period X.3 brick wall 17 (see below). Levelling 42 represents a new floor surface within Building 2 of period XI.1, abutting the existing rear wall of the building, and the regular profile of the robber trench suggests the removal of a timber base-plate. Successive layers of grey-orange gravel (53) and brown loamy gravel (39) formed an external surface to the south of the building, cut by a brick drain (44) filled with brick rubble (43).

#### Discussion

Building 2 of period XI.1 remained in use in period XI.2, with a new floor surface, but the robbing of the base-plate for its

rear wall implies the dismantling of the building at the end of the phase. The pottery from the period XI.2 deposits suggests a disuse date of the mid-late 16th century, as do the bricks used in drain 44.

**Development after 1591**

The later post-medieval development of the site is summarised here and full details are contained in the archive report. Building 2 of period XI.2 was rebuilt (Figs 10, 11, period XI.3/XII), with its construction phase closely dated by pottery to the later 16th century. The new building (Building 3) had brick footings (17) which would have supported a timber-framed superstructure, and included a large brick fireplace (21, 30, 45, 46), built on deep foundations of gravel and levelled tile, one of which rested on the former Roman road (Fig. 11, 45). The gravel yard to its rear was resurfaced (16) and provided with a new brick drain (25). Walker’s map of 1591 shows this building as one of a row of houses on the south side of Baddow Road, all having tile roofs and chimney stacks. In the late 17th or early 18th century the building was extended to the rear into the yard area (period XIII). Three further building phases were recorded, extending into the 20th century.

**SALVATION ARMY, 70 BADDOW ROAD (CF56)**

**Introduction**

A former channel of the River Can and reclamation deposits above it were recorded in a machine-cut trench measuring 16m x 2m at the Salvation Army Citadel site on the south side of Baddow Road, 120m south east of the Meadows Car Park site (Fig. 1, trench 2; TL 7119 0631). The trenching was carried out in advance of redevelopment in April 2008 by the Essex County Council Field Archaeology Unit, and re-examined a site where the top of the river channel had previously been recorded in 1971 but had not been fully understood (Wickenden 1992, 49–50). The following is based on a detailed site report (Allen and Pocock 2008) held in the Essex Historic Environment Record and on the Archaeology Data Service website <<https://doi.org/10.5284/1004238>>.

**A former channel of the River Can**

Walker’s map of 1591 shows the Can forming a bend well to the south of its present course (Figs 1, 2; Plate 1), but the 2008 trenching recorded the south bank of the river even further to the south; 17m south of Baddow Road and 45m south of the river as mapped by Walker. Trench 1 on the riverbank recorded the alluvial gravels as capped by a thin layer of natural brickearth, which had been partially eroded and was sealed by a thick layer of silty clay alluvium. This contained a large quantity of Roman finds, but a few sherds of pottery dating to the mid-13th to 14th century indicate that flooding continued into the medieval period. In Trench 2, a section across the river channel (Fig. 12) recorded its gently sloping southern edge (27) as shelving at a depth of 1.4m. The deepest part of the channel was at the Baddow Road frontage, reflected in the steep tip lines of its fills. Although its bottom was not recorded, the channel was at least 1.8m deep and filled with waterlogged river deposits, whose top was at 21.4m OD, a little lower than the river flood level at the Meadows Car Park. The river silts were mainly clean and sterile, consisting of blue-grey fine silty clay in the deepest part of the channel (31), extending over its shelving southern edge (23, 24) and becoming mixed with gravel through erosion of the riverbank (32, 33). They were stained brown at the top, containing specks of wood (30), and in the deepest part of the channel were overlain by a thin layer of peat (29) and further blue-grey silty clay (28), to the level of the flood silts at its southern edge.

*Discussion*

The shelving profile of the south bank of the Can at this point is very similar to that recorded at the Meadows Car Park site, with an area of shallow flood deposits to the south of the main channel, and evidence of periodical flooding over a wider area. Analysis of plant remains from the river channel (see Plant Macrofossils report) shows that it had become stagnant and peat layer 29 at its top was largely formed of matted reed stems. River deposits recorded in boreholes to the north, behind 37–47 Baddow Road on the opposite side of the road,

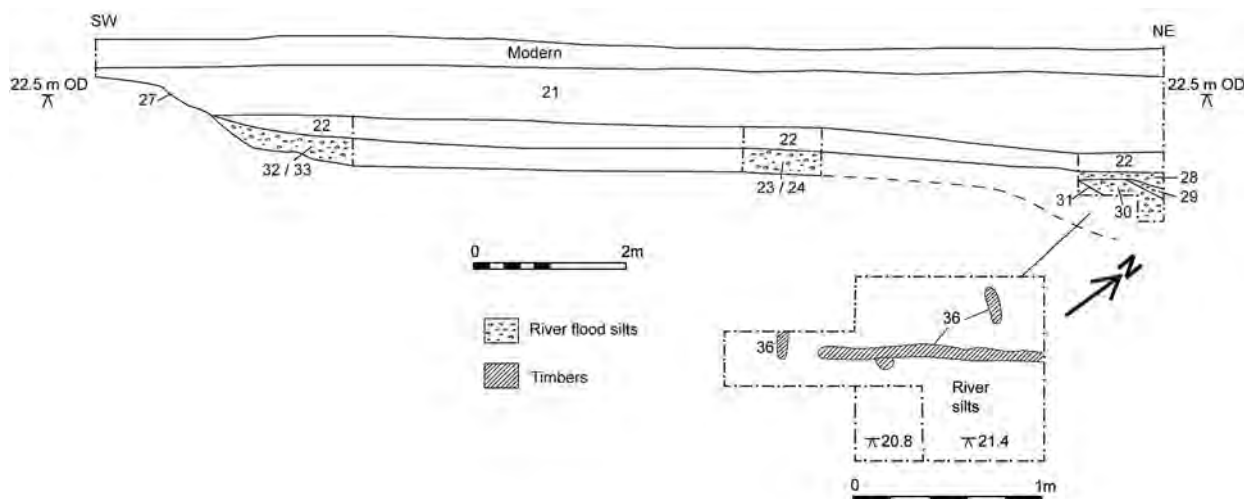


FIGURE 12: Salvation Army, 70 Baddow Road (CF56), section across the southern edge of the river channel, and plan inset of the period X timber box-revetment

near the modern river bank (Fig. 1), are interpreted as 'quiet water', with sandy deposits indicating episodes of flooding (Allen and Heppell 2006, 6.1). The silting of the southern loop of the river and the diversion of the main channel to the north was undoubtedly a result of the 13th-century riverbank reclamation recorded at the Meadows Car Park. This partially canalised the river immediately downstream of the bridging point, diverting its course so that the outside of the river bend silted and was cut off, becoming a backwater.

#### **Period X: Reclamation of the river channel (14th century)**

The river channel (Fig. 12) was levelled over with a layer up to 0.5m thick of dark grey-brown gravel mixed with clay-silt (22), stained green by decayed organic material, including the disturbed remains of a horse (see Animal bone report). In the deepest part of the channel the levelling overlay the semi-decayed timbers of a plank-and-post structure (36) in the top of the river silts (Fig. 12, plan inset), which is interpreted as a crude box-revetment inserted to stabilise the soft ground before laying down levelling 22. Both the disturbed top of the river silts and the levelling above them are dated by pottery to the 14th century.

#### **Period XI: Reclamation of the river channel (15th to 16th century)**

The river channel was finally filled to the top by a layer of dark grey-black silt 0.7m thick (Fig. 12, 21), which raised the ground level to 22.8m OD, 0.2m above the level from which the channel originally cut. This second stage of filling the channel raised the ground level further above that of the river, and occurred after an interval, as it contained pottery dated to the late 15th to 16th century. The surface of the levelling was truncated by modern construction deposits.

#### *Discussion*

The reclamation of the silted river channel, whose initial phase (period X) is dated to the 14th century, would have enabled Baddow Road to have been laid out on its modern line, as shown on Walker's map of 1591 (Plate 1).

### **ODEON ROUNDABOUT, PARKWAY (K)**

#### **Introduction**

Medieval ditches and pits cutting the remains of the Roman temple were recorded at the Odeon Roundabout, Parkway, formerly 1–8 Rochford Road, 70m to the south of the Meadows Car Park site (Fig. 1; TL 710 063). The site was excavated in advance of redevelopment in April–July 1970 and February–April 1971 by the Chelmsford Excavation Committee (later the Chelmsford Archaeological Trust) under the direction of P.J. Drury. The excavation area measured a maximum of 44m × 50m. The levels related to the Roman temple have already been published (Wickenden 1992). The following is based on an unpublished report by A. Harris and R.M.J. Isserlin (1994) held in the Chelmsford and Essex Museum. The medieval features were often recorded quite summarily.

#### **Periods IX and X: Boundary gullies/ditches and pits (late 12th to 14th century)**

The medieval features cut the remains of the Roman temple without any intervening surfaces or soil build-up. This may

have been a result of demolition and robbing, but it is likely that the uppermost Roman deposits had been eroded by flood scouring, as recorded at 16 Baddow Road (see above). Three sherds of medieval pottery in robber trench fills suggest that the temple's foundations were still being robbed as late as the 13th century, although given the relatively high incidence of intrusive material on the site these sherds could well be intrusive (Wickenden 1992, 42). The earliest medieval features were a large irregular quarry pit (755) and a smaller pit (653), both of which cut down into the natural gravels (Fig. 13). They contained London-type ware and appear to be earlier than the other medieval features, dating to the late 12th to mid-13th century.

A boundary of several phases ran north to south down the centre of the site. The earliest element was a shallow gully (601), probably related to a feature to its east that has not survived, such as a bank or a hedge. A ditch (264), up to 0.75m deep and with an irregular profile from several recuts, ran parallel to the southern end of gully 601. The most recent recut (199) ran along its eastern edge, extending the line of the gully. All these features are dated by pottery to the 13th century, with ditches 264 and 199 probably continuing into the 14th century. The infilling of a large boundary ditch (133) aligned east to west along the southern limit of the site is dated to the 16th century or later, but the layout of the boundary features suggests that this may have been a recut of an earlier medieval ditch.

Several pits were also recorded, one of which cut boundary ditch 199, but all the others were to the west of the boundary. A deep rectangular pit in the extreme west (692) is dated by pottery to the first half of the 13th century. Three other deep pits (371, 767, 679) were 2–3m in diameter and cut into or down to the natural gravels, below the water table. They had steep sides which were undercut towards the bottom, suggesting that they had held water. There is no evidence of any timber linings, although shallow slots suggest that the top of pit 371 was revetted by planks. The pits were filled with silty gravelly loam containing slag and scrap pieces of copper alloy and iron, pottery and other domestic debris. This material is considered to be residual rubbish from the surrounding area rather than representing the usage of the pits. These later pits are dated by pottery to the mid-13th to 14th century.

#### **Period XI: Flooding and cultivated soil (15th to 16th century)**

The site was covered by a thick layer of pebbly silty loam (period XI). This in part represents continued flooding and the site may have been boggy, although the loam content of the soil suggests that it was finally cultivated. Apart from boundary ditch 133 referred to above, later post-medieval features consisted of a well and a scatter of post-holes (periods XII–XII).

#### *Discussion*

The area of the former Roman temple appears to have been affected by flooding and it remained a marginal area in the medieval period. The water-filled medieval pits have been interpreted as a dyer's establishment (Drury 1972, 25); they cannot have been tanning pits due to the absence of cess, essential to the tanning process, in the pit fills. The interpretation of a dyer's establishment is likely but remains unproven. Walker's map of 1591 shows the site as part of a

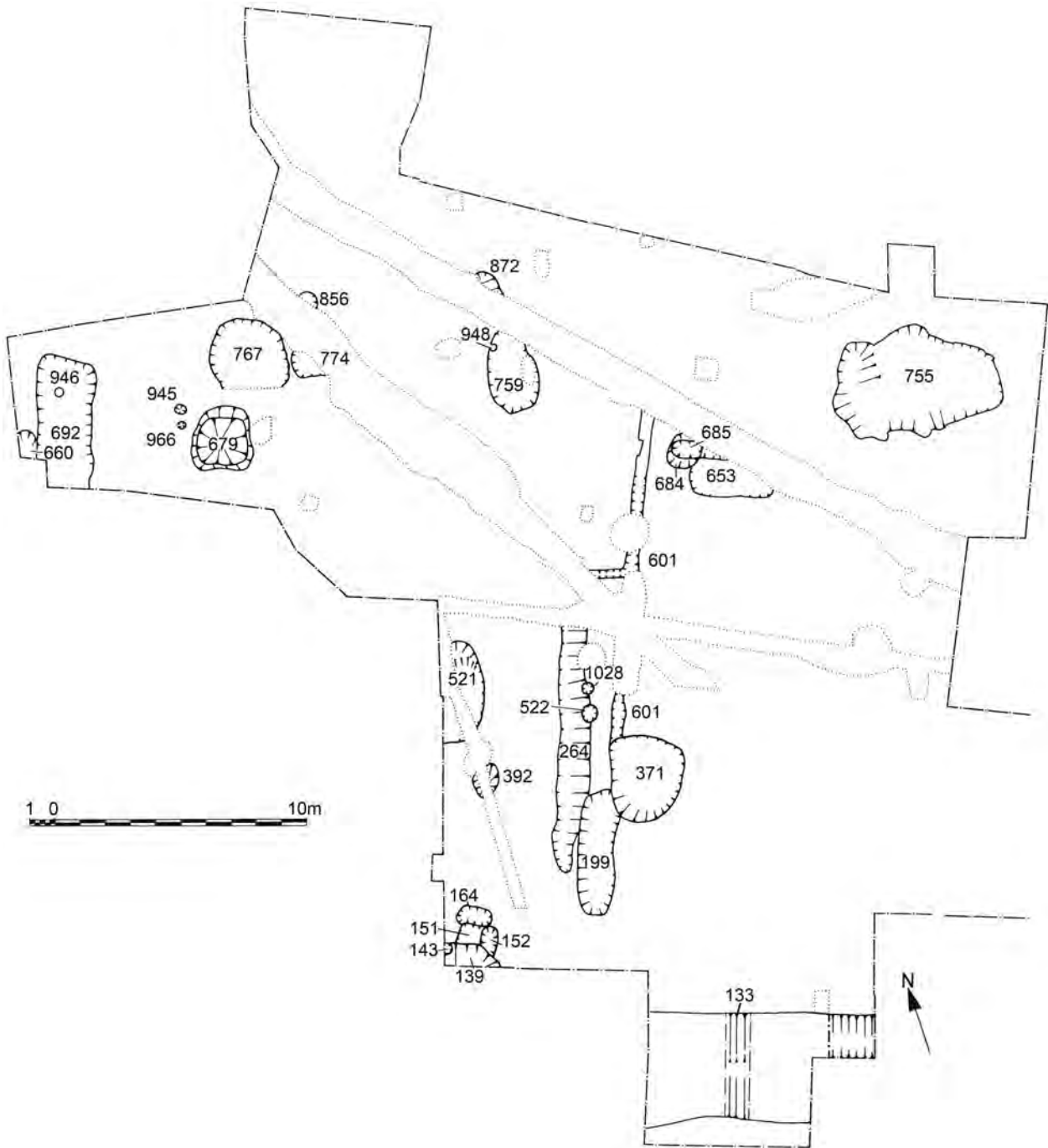


FIGURE 13: Odeon Roundabout, Parkway (K), periods IX-X

smallholding on the south side of Baddow Road, and the 13th/14th century boundaries seen in period X represent the earliest evidence of this plot.

**FINDS**

**Individual objects** by Hilary Major

Apart from pottery and building materials, finds assemblages at both the Meadows Car Park and 16 Baddow Road are generally small, fragmented and poorly preserved. The following summaries are based on finds catalogues prepared by Hilary Major and held in archive. Most of the individual objects recovered are of post-medieval date and there are very few medieval artefacts. An outstanding exception is a 12th-

century carved bone sword pommel, which is described in a separate report below.

*Meadows Car Park*  
**Medieval**

Half a silver penny, most likely a short-cross form dating to the early 13th century, was recovered from Building 2 of period X.4, dated to the 14th century (SF1, 31, cleaning of floor 40). The only copper-alloy object of note is a dressmaker's pin with a coiled head, unfortunately damaged, but dating to the late medieval or early post-medieval period (SF7, residual in modern overburden). Iron objects are also rare, but include a knife fragment in a pit of period XI.1 dated to the late 15th to mid-16th century (SF19, fill 54, pit 22), and iron nails with

square shafts and either round or oval heads in late medieval contexts. Fragments of lava quern were found in contexts of periods X.2 and X.4.

**Post-medieval**

The largest number of artefacts came from gravel quarry 113 (period XIII) in area B, dated to the 18th century, which contained halfpennies of George II and George III, a typical group of post-medieval dress fittings and accessories, an iron horseshoe, and bottle and window glass.

*16 Baddow Road*

**Medieval**

No metalwork was recovered other than a few iron nails. A few pieces of metalworking slag were recovered but are residual in levelling deposits and are not related to kiln 49/50 of period X.3/XI.1. Fragments of lava quern lower stones were recovered from period X.1 levelling 81, dated to the early/mid-13th century, and also reused as hardcore in period X.2 road surfaces 76 and 73, dated to the late 13th to 14th century.

**Post-medieval**

Again, no metalwork was recovered other than iron nails and a possible knife blade fragment. A few clay tobacco pipe fragments were recovered from surfaces dated to the 17th and 18th century, but these include only two bowls and none was diagnostic.

**A 12th-century carved bone sword pommel** by Paul Williamson

The most important object found in the excavation of the Meadows Car Park site was a bone relief showing two confronted birds within foliate decoration (Fig. 14; Plate 2). Its maximum measurements are 470mm (height) × 50mm (width) × 12mm (depth). It was recovered from surface cleaning of the levelling for Building 1 of period X.3 (53 = levelling 6) after excavation of the overlying clay floor (5), and is likely to have arrived at the site as residual rubbish in a late 13th-century episode of riverside reclamation, on which the building was constructed.

The two birds, shown with hawk-like beaks, turn to face one another with their heads almost touching. The necks of both birds have been defined with beaded strips, as has the tail of the bird on the left. They perch among curving foliate tendrils, one of which terminates in a spiral at the left. The object is of a curved shape above but the lower edge is flat, with a plain border; the back is uncarved, revealing the concave profile of the bone, and in section the front of the object swells out. Four nail holes have been drilled through it, two at the bottom and two near the top, and part of an iron nail remains at the top left. The surface is now much rubbed at the highest points at the centre of the relief and a small section has sheared off around the nail-hole at the bottom right.

The distinctive and unusual shape of the object, coupled with the concavity of the back and the presence of four nail-holes, allows a confident reconstruction of its original

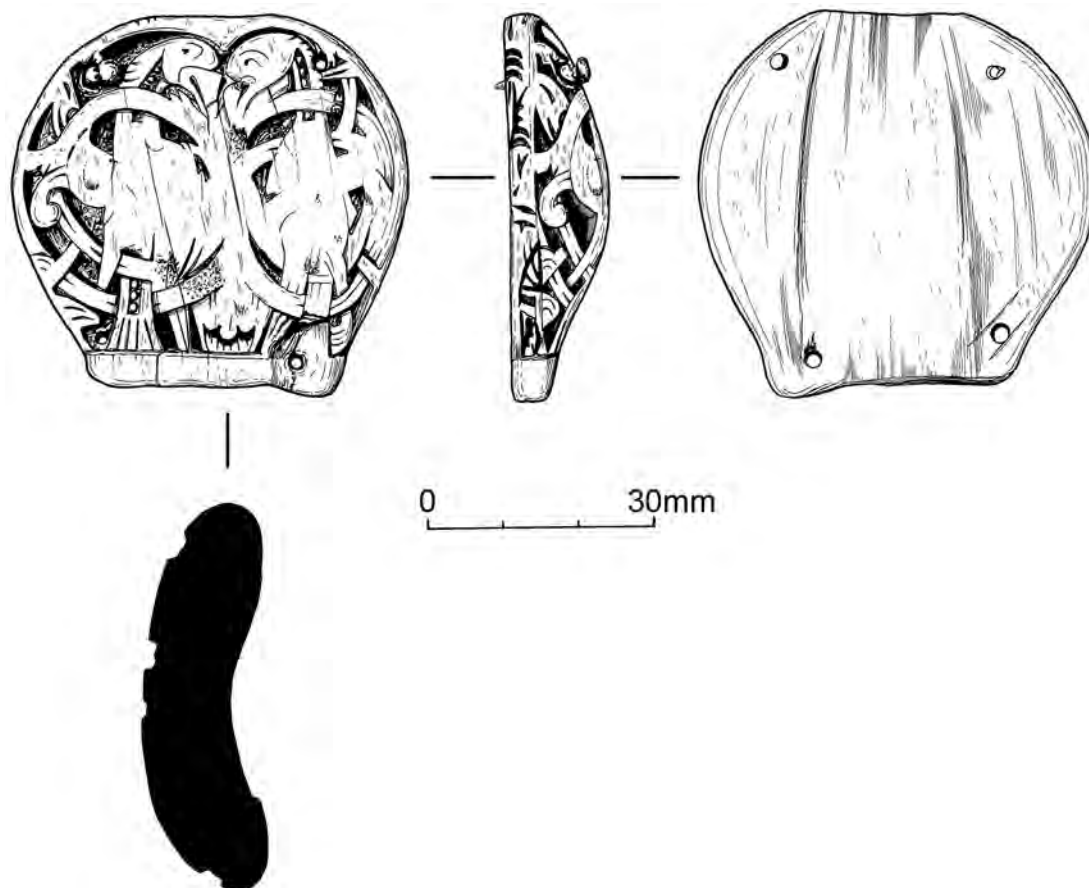


FIGURE 14: Meadows Car Park (CF14), 12th-century carved bone sword pommel



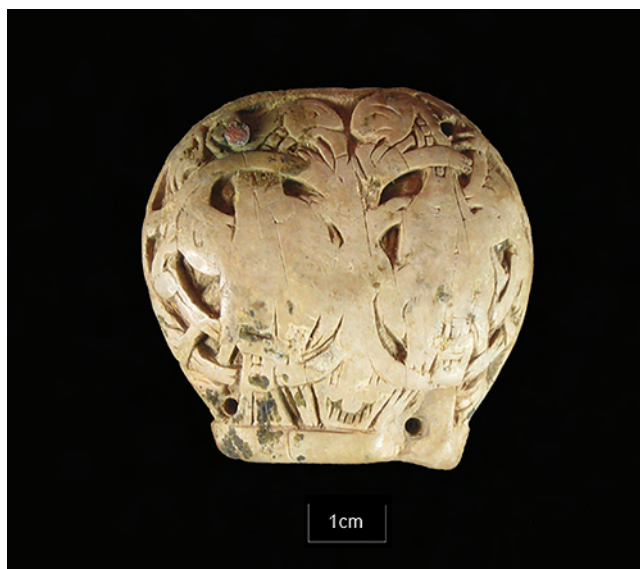


PLATE 2: Meadows Car Park (CF14), 12th-century carved bone sword pommel

function. This was as one side of a sword pommel, terminating the hilt: the concave shape of the back, taking advantage of the natural channel of the bone but probably further hollowed out, would have accommodated a short cylindrical extension of the grip. Ivory and bone sword pommels do not now survive in good numbers, and only a tiny sample may be compared with the present example (see MacGregor 1985, 165–7, fig. 87). The most well-known piece, albeit of slightly different shape and design, is a walrus-ivory pommel (the guard is also present) on the hilt of a sword in the National Museum in Copenhagen, of 12th-century date (Goldschmidt 1923, cat. no. 142, pl. XLIX; MacGregor 1985, fig. 87g). In a more costly material but closer in design is the gold pommel, probably of the 11th century, on the so-called ‘Sword of Charlemagne’ from Saint-Denis, now in the Musée du Louvre in Paris, where there are also confronted birds among foliate shoots (Musée du Louvre 1991, cat. no. 33).

The decorative vocabulary and style of the carving point to an English origin, probably in the second quarter of the 12th century. The distinctive foliate shoots and beaded bands recall the same features on capitals and stone sculpture from Norwich and Reading of c. 1130 (Hayward Gallery 1984, cat. nos 126–7), and similar birds, possibly eagles or hawks, may be found on stone and ivory sculptures of this date (Hayward Gallery 1984, cat. nos 127n, 201). Likewise, the abundant use of beaded strips and figures entwined in foliate shoots are seen on English walrus-ivory tau-crosses and other small-scale sculptures in the first half of the 12th century (Williamson 2010, cat. nos 93–5); and the general layout of the design calls to mind mid-12th-century initials in English illuminated manuscripts (e.g. Kauffmann 1975, figs 150–1; Alexander 1978, fig. XI).

The wear on the pommel indicates that it belonged to a sword that had been well used over a long period, the surface being rubbed so severely that all detail has been lost on the highest points. This was presumably caused by the pommel chafing repeatedly against the belt or waist of the owner. One can only speculate on the circumstances of the loss, but the sword to which it belonged might have been damaged, possibly

in combat, with this part of the pommel becoming detached and lost at or near the bridge over the River Can.

### Medieval and later pottery by Helen Walker

A moderate amount of medieval and early post-medieval pottery was recovered from the excavations at the Meadows Car Park site (CF14) and 16 Baddow Road (AS), weighing 11.9kg and 4.2kg respectively. The earliest pottery groups on both sites probably date to the first half of the 13th century (CF14, period X.1; AS, period X.1). The bulk of the pottery is dated to the mid-13th to 14th century, derived from riverside reclamation and buildings on both sides of Baddow Road (CF14, periods X.2–X.5 and AS, period X.2–X.3). The dominant fine wares are Hedingham and Mill Green products, with a few sherds of Kingston-type ware. Medieval coarse ware, dating from the late 12th to 14th century, forms around half of the overall assemblage, with smaller amounts of Hedingham and Mill Green coarse wares and sandy orange ware. Later groups dated to the 15th to 16th century include late sandy orange ware forms, early post-medieval red earthenware (now renamed Tudor red ware) and Rhenish stonewares (CF14, period XI.1; AS, periods XI.1–XI.2). Medieval pottery from the Salvation Army site, 70 Baddow Road (CF56) and the Odeon Roundabout site, Parkway (K) is summarised, as is post-medieval pottery dating from the later 16th to 18th century.

### Method

This report has mainly been edited from an archive report for the Meadows Car Park (Walker 1994) but also makes use of detailed pottery records for 16 Baddow Road held in archive. The pottery was recorded using Cunningham’s typology (Cunningham 1985a), and the report uses her fabric numbers and the rim form typology developed by Drury *et al.* (1993, 81–4). The pottery on each site is summarised by fabric sherd counts per phase and then described in phase order with a catalogue of illustrated vessels. As the archive report was prepared in 1994, the pottery analysis has been updated with references to more recent reports, in particular a study of the Hedingham industry (Walker 2012).

### Fabrics

The fabrics have all been described in previous reports and references to them are listed in Table 2.

Variations to fabrics are not quantified in Table 2 as they represent relatively small amounts of pottery. Shell-tempered ware (fabric 12A) has several variations: shell-with sand-tempered (12B), sand-with superficial-shell-tempered (12C), and sand-tempered with flint and shell inclusions (12Cf). Early medieval ware (fabric 13) has a flinty variation (13f) and a variation that is transitional between early medieval and medieval coarse ware (13t). A sandy orange ware variant (fabric 21+) is hard-fired with fine quartz and coarser sand inclusions, generally grey but with a yellow-buff ‘skin’. Hedingham ware has a sand-tempered variant (fabric 22B). Many of these fabric variations feature in vessels that are described in detail and illustrated.

### Meadows Car Park

A total of 901 sherds of medieval and early post-medieval pottery, weighing 11.9kg, was recovered, with an average sherd weight of 13.2g (Table 3). A further 422 sherds of pottery,

<b>Fabric</b>	<b>CF14</b>	<b>AS</b>	<b>Date range</b>	<b>Forms</b>	<b>References</b>
12: Shell-tempered ware (with variants 12A/B/C/Cf)	16%	1%	12th 13th C	Cooking-pots, chimney pot	Drury <i>et al.</i> 1993; Vince & Jenner 1991
13: Early medieval ware (with variants 13f/13t)	3%	1.5%	12th 13th C	Cooking-pots	Drury <i>et al.</i> 1993; Vince & Jenner 1991
20: Medieval coarse ware	54%	41%	L12th 14th C	Cooking-pots, bowls, jugs	Drury <i>et al.</i> 1993; Vince & Jenner 1991
20C: Mill Green coarse ware	3%	7%	M13th 14th C	Cooking-pots	Pearce <i>at al.</i> 1982; Meddens & Redknap 1992
20D: Hedingham coarse ware	none	7%	M12th 13th C	Cooking-pots	Walker 2012
21: Sandy orange ware (with variant 21+)	8%	15.5%	13th M16th C	Jugs	Cunningham 1985a; Cotter 2000
22: Hedingham fine ware (with variant 22B)	3%	1.5%	M12th 13th C	Jugs	Walker 2012
23D: Kingston-type ware	0.5%	< 0.5%	L13th M14th C	Jugs	Pearce & Vince 1988
34: Unclassified buff ware	0.5%	0%	Late medieval	Jug	This report, fig. 16.23
35: Mill Green Ware	4%	5.5%	M13th M14th C	Jugs	Pearce <i>at al.</i> 1982; Meddens & Redknap 1992
36: London-type ware	< 0.5%	0%	L13th 14th C	Jug, late form	Pearce <i>at al.</i> 1985
40: Post-medieval red earthenware (early type)	6%	14%	15th 16th C	Cisterns, jars, bowls, cups	Cunningham 1985a
41: Tudor green ware	none	0.5%	L15th E16th C	None	Cunningham 1985a
45C: Raeren stoneware	none	1%	L15th/16th C	Jugs	Cunningham 1985a Hurst <i>et al.</i> 1986
45D: Frechen stoneware	none	3.5%	M16th C +	Jugs	Cunningham 1985a Hurst <i>et al.</i> 1986

TABLE 2: Medieval and early post-medieval pottery fabrics, with the percentage of the assemblage by weight, date range, forms and references to published descriptions

<b>Fabrics (codes)</b>	<b>X.1</b>	<b>X.2</b>	<b>X.3</b>	<b>X.4</b>	<b>X.5</b>	<b>XI.1</b>	<b>Totals</b>
Shell-tempered ware (12A/B/C/Cf)	8	9	32	28	8	7	92
Early medieval ware (13/13f/13t)	4	8	14	6	5	1	38
Medieval coarse ware (20)	21	28	133	153	112	38	485
Mill Green coarse ware (20C)			8	11	12	7	38
Sandy orange ware (21/21+)			20	31	13	25	89
Hedingham fine ware (22/22B)		4	32	9	5	8	58
Kingston-type ware (23D)			1	1		2	4
Miscellaneous buff ware (34)					2	3	5
Mill Green Ware (35)		2	10	14	18		44
London-type ware (36)					1		1
Post-medieval red earthenware (40)						42	42
Intrusive post-medieval sherds				4	1		5
Sherd totals	33	51	250	257	177	133	901
Total weight (g)	883	868	3,224	3,082	2,328	1,511	11,896

TABLE 3: Meadows Car Park, medieval and early post-medieval pottery fabrics quantified by sherd count per phase, with the total weight of pottery per phase

weighing 5.3kg, were recovered from post-medieval contexts and modern overburden but consisted of highly mixed groups with large amounts of residual medieval material, and they are not analysed in detail.

### Period X.1

A small amount of pottery was recovered from period X.1, thirty-three sherds weighing 883g. Single sherds of early medieval ware (fabric 13) were found in gravel surface 9 and its resurfacing 172, but most of the pottery came from flood deposit 117 at the end of the phase, which included part of a shell-tempered ware cylindrical vessel, probably a chimney pot, and a medieval coarse ware vessel (Fig. 15, nos 1–2).

1. Chimney pot: shell-tempered ware (fabric 12A), dull orange fabric with darker surfaces, tempered with abundant coarsely crushed shell. Flood deposit 117.
2. Bottom half of a jug or cooking-pot: medieval coarse ware (fabric 20), pale grey but with distinctive buff surfaces, tempered with sand and unidentified soft white sub-rounded inclusions that did not react to acid, coil-built. Flood deposit 117.

The latest datable pottery is the medieval coarse ware vessel. Although medieval coarse ware can be dated as late as the 14th century, as this example is coil-built and low-fired it is more likely to date to the late 12th to 13th century. Possible parallels for the chimney pot from the Boreham Interchange site are dated to the early/mid-13th century (Walker 1999, 35–7 and fig. 3.7), although vessel no.1 is plain and lacks the thumbled decoration of the Boreham pots.

### Period X.2

Again, only a small amount of pottery was recovered from period X.2, fifty-one sherds weighing 868g. The pottery mainly comprises medieval coarse ware (fabric 20) and early medieval fabrics (12A/B/C and 13/13f), but Hedingham and Mill Green fine wares (fabrics 22 and 35) appear for the first time in occupation layer 99 and drain 91 (fill 92). A sandier variant of Hedingham Ware (fabric 22B) includes sherds which are green-glazed and decorated with incised vertical lines. These also have an internal limescale deposit so were probably part of a vessel used as a water container. The Mill Green fine ware is undecorated but has a green glaze. Hedingham Ware has an extreme date range of the mid-12th to mid-14th century but is commonest in the 13th century, while Mill Green Ware has the later date range of the mid-13th to mid-14th century. This suggests that period X.2 should be dated to the mid/late 13th century. Also of interest are three cooking-pot rims (Fig. 15, nos 3–5). Although vessel no. 3 is in an early medieval fabric, cooking-pots 3 and 4 have developed rims and are 13th-century types.

3. Small cooking-pot rim (H1): sand-with superficial-shell-tempered ware (fabric 12C), grey core, red-brown surfaces. Occupation layer 99.
4. Cooking-pot (H1 rim): medieval coarse ware (fabric 20), hard fabric, grey with buff-brown surfaces, sparse shell as well as sand tempering, thumbled applied strip. Occupation layer 99.
5. Cooking-pot rim (H2): early medieval ware (fabric 13), grey core, buff-brown surfaces, sooting under rim. Fill 92, drain 91.

### Period X.3

A much larger amount of pottery was recovered from period X.3, 250 sherds weighing 3.2kg, mostly from the initial

levelling but also from floor surfaces inside Building 1. Hedingham and Mill Green fine wares are again present in the levelling and, for the first time, a distinctive form of sandy orange ware (fabric 21+), all represented by jug forms (Fig. 15, nos 6–8). Although residual period XI.1, a sherd of sandy orange ware (fabric 21) is contemporary with the other sandy orange ware of period X.3, as it was decorated with a vertical applied roulette strip in the manner of London-type ware, found on London-type north French jugs of the mid-13th century (Pearce *et al.* 1985, 19, pl. 9–11).

6. Jug rim (B2A): Hedingham fine ware (fabric 22), buff-orange fabric with pale grey core; applied strips in a clay lighter than that used in the pot body, patches of red slip-painting, partial pale green glaze. Levelling 81.
7. Jug bottom half: sandy orange ware variant (fabric 21+), grey with orange-buff surfaces, traces of red and white slip-painting, with splashes of pitted green glaze, no throwing lines. Levelling 6.
8. Jug sherd: sandy orange ware variant (fabric 21+), grey with reddish margins and external surface, internal throwing lines, white slip coating showing slight vertical striations, possibly brush marks, combed decoration through slip-coating, mottled green glaze. Levelling 6.

Also present in the levelling is a large amount of medieval coarse ware, as well as smaller amounts of early medieval shelly and sandy wares and, for the first time, Mill Green coarse ware (fabric 20C). The only forms are cooking-pots (Fig. 15, nos 9–12). Cooking-pot no. 11 is the most significant for dating as it has a blocked, neckless rim, a type found at the Danbury tile factory site, where it is dated to the late 13th to early 14th century (Drury and Pratt 1975).

9. Cooking-pot (B2 rim): sand-tempered ware with flint and shell inclusions (fabric 12Cf), pale grey with slightly darker surfaces, vesicles where shell has leached out, coil-built with distinct internal horizontal striations, patches of sooting. Levelling 6 (rim) and residual in floor 46, period X.4 (bottom half of pot).
10. Cooking-pot rim (H2): medieval coarse ware (fabric 20), borderline early medieval ware (fabric 13), grey but with buff-brown surfaces, external blackening. Levelling 6.
11. Cooking-pot rim (H3): medieval coarse ware (fabric 20), hard fabric, grey core, red margins and darker grey surfaces. Levelling 6.
12. Cooking-pot rim (H1): Mill Green coarse ware (fabric 20C), grey core, orange margins and creamy buff surfaces, lacks sand tempering so is a fine ware fabric in a coarse ware form. Levelling 6.

Hedingham and Mill Green fine wares are again present in floor surfaces in Building 1, and medieval coarse ware is still very common (Fig. 15, nos 13–15; Fig 16, nos 16–17). From this part of the sequence onwards early medieval shelly and sandy wares become quite rare and are increasingly residual, and shell-tempered ware bowl no. 16 is the last significant example of this fabric.

13. Jug rim (B2): Hedingham fine ware (fabric 22), creamy orange fabric with applied strips and pellets in a finer buff-coloured fabric, made green with the addition of copper, plain lead glaze. This decoration is reminiscent of north French-style decoration, as produced in London-type ware during the early to mid-13th century (Pearce *et al.* 1985, pl. 6), in that the decoration appears to consist of vertical lines of applied slip stripes and pellets. It may therefore be residual in this context. Floor 5.
14. Jug, top half of body: Hedingham fine ware (fabric 22), probably from a rounded or baluster jug, creamy orange fabric, incised decoration, overlain by a band of horizontal incised lines around the shoulder, all-over external mottled green glaze, wear marks around girth, internal surface is pock-marked in places, wheel-thrown, this jug is much plainer than No. 13 and may be later, perhaps belonging to the 14th century when jugs had less ornament. Floor 5.

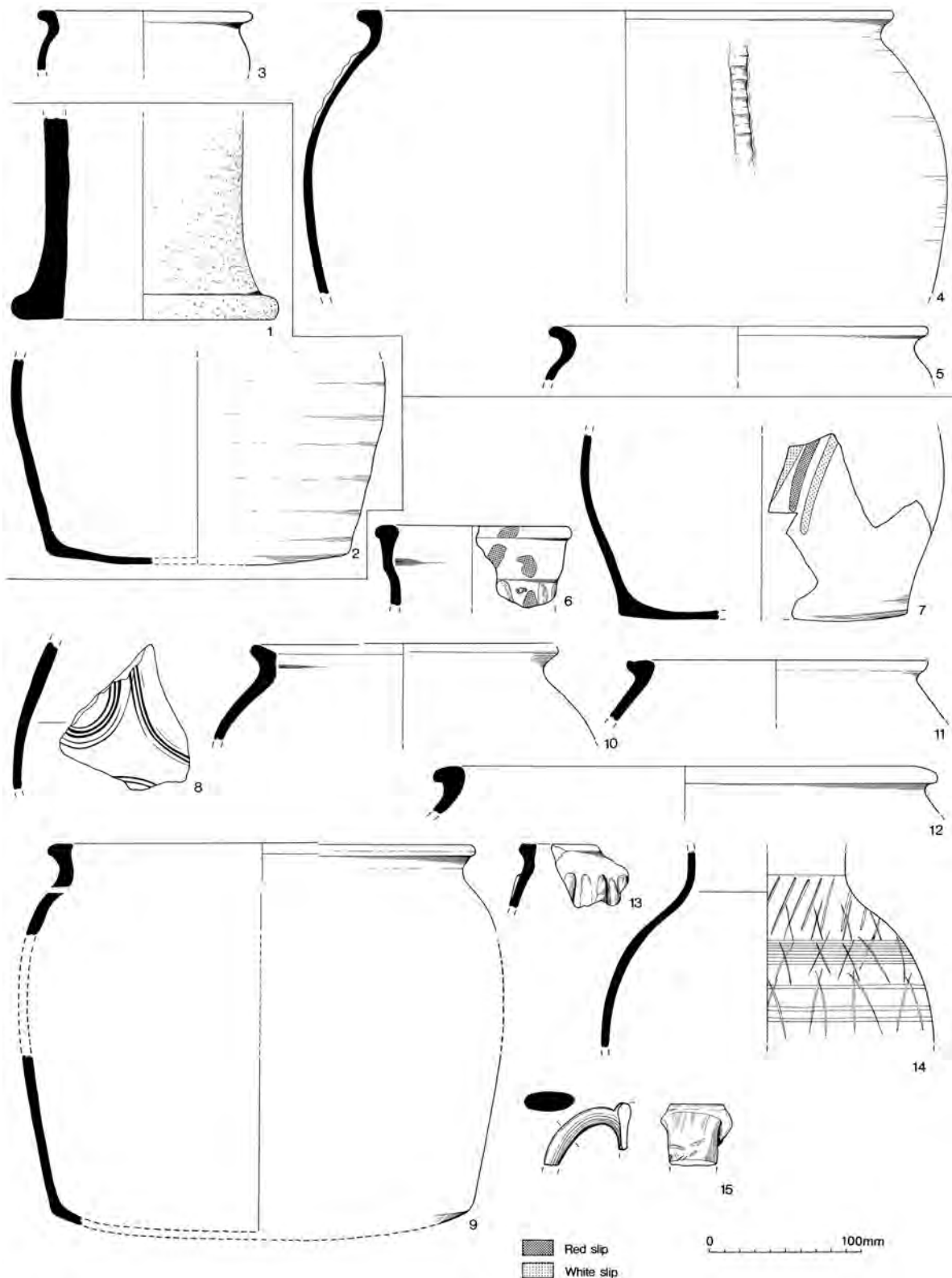


FIGURE 15: Meadows Car Park (CF14), medieval pottery nos 1–15

- 15. Jug rim (G1) and handle: Mill Green Ware (fabric 35), brick-red core, grey margins and buff surfaces, hard, unglazed, untypical in that there are no prick marks on the underside of the handle or the inside of the neck where the handle is attached, which are characteristic of Mill Green Ware. Floor 5.
- 16. Bowl (E5A rim): shell-tempered ware (fabric 12A), tempered with moderate coarsely crushed shell, including the shell of a tiny gastropod as well as bivalve shell, red-brown with darker external surfaces, hand-

made. Finds 27 = top of fill 61, oven 80, and residual in overlying orchard soil 3, period XI.2.

- 17. Cooking-pot rim (D2): medieval coarse ware (fabric 20), curved or cavetto type, dark purplish grey fabric. Scorched floor 64.

Appearing for the first time is a small rim sherd of Kingston-type ware (fabric 23D) from cleaning 25 above floor 5 (not illustrated). Kingston-type ware first appears in London

in the mid-13th century but may not have arrived in Chelmsford until later; it continued in production until the late 14th century. The rim sherd is thickened and slightly bevelled with a mottled green glaze and a diameter of around 140mm. As the precise jug form cannot be identified it is only broadly datable to the late 13th to 14th century. Medieval coarse ware forms comprise a fragment of a jug with a strap handle and inturned rim (H2) and a range of cooking-pot rim forms (H1, H2), including the blocked neckless type (H3) represented by No. 11, dated to the late 13th to early 14th century. Period X.3 is therefore dated by the Kingston-type ware, Mill Green Ware and late type of Hedingham Ware to the late 13th to 14th century, and on the evidence of cooking-pot No. 11 the phase may have ended in the early 14th century.

**Period X.4**

Another relatively large amount of pottery, 257 sherds weighing nearly 3.1kg, was recovered from period X.4, mainly from levelled fire destruction debris from the underlying Building 1 of period X.3 but also from the floor surfaces of its successor, Building 2. As would be expected the pottery is similar to that of period X.3 and much of it is likely to be residual. Period X.4 followed straight on from period X.3 and is dated to the 14th century.

Hedingham and Mill Green fine wares are again present, with a single sherd of Kingston-type ware. Of interest are sherds from a sandy orange ware vessel (fabric 21) which has a dull red fabric not unlike that of medieval Harlow Ware, with a cream slip-coating under a decomposed pitted green glaze. One sherd shows combed decoration and may be a Mill Green copy. A rim in a similar sandy orange ware fabric was found

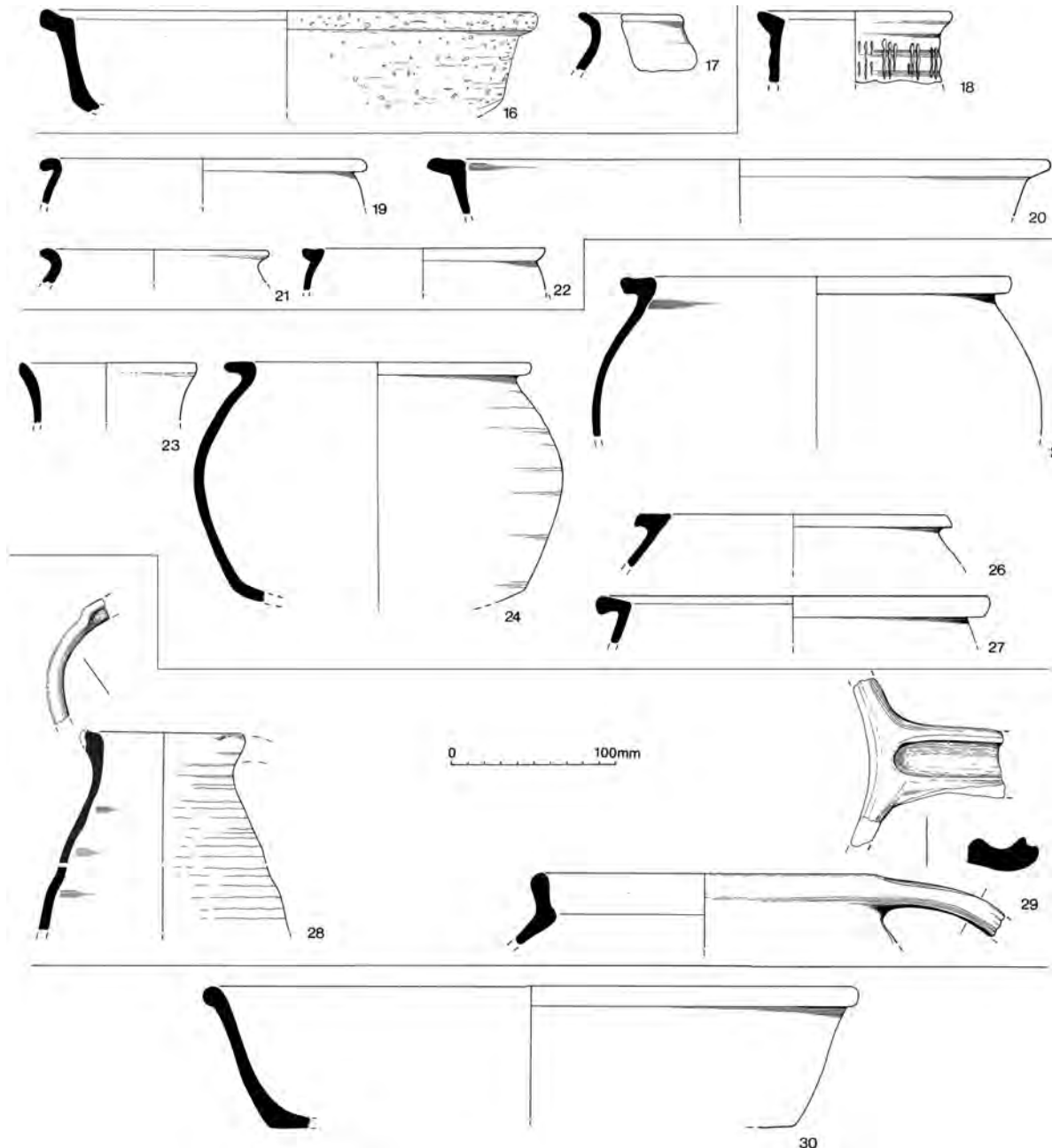


FIGURE 16: Meadows Car Park (CF14), medieval pottery nos 16–30

in a modern intrusion cutting period X.4 deposits (Fig. 16, no. 18). Large amounts of medieval coarse ware are again present, including a range of cooking-pot rim forms (mainly H1 and H3, and a single D2) (Fig. 16, nos 20–22), with smaller amounts of Mill Green coarse ware, including an unusual cooking-pot rim form (Fig. 16, no. 19).

18. Jug rim (B2): sandy orange ware (fabric 21), dull red fabric tempered with moderate fine, grey, red and colourless sands, all-over slip-coating with slip also on inside of neck, combed decoration beneath a decomposed green glaze. Residual in modern intrusion 33, cutting period X.4 deposits.
19. Cooking-pot rim (E6): Mill Green coarse ware (fabric 20C), grey core, orange margins and slightly darker surfaces, sooting around rim. Finds 26 = top of levelled debris 15.
20. Large bowl rim (E5A): early medieval ware/medieval coarse ware transitional (fabric 13t), external sooting. Finds 31 = floor 17.
21. Small cooking-pot rim (D2): medieval coarse ware (fabric 20), brown-grey core and dark grey surfaces. Finds 31 = floor 17.
22. Small cooking-pot rim (H3): medieval coarse ware (fabric 20), pale grey sooting on rim and shoulder. Finds 32 = floor 18.

### Period X.5

A moderate amount of pottery, 177 sherds weighing 2.3kg, was recovered from two pits cutting deposits of period X.4, and is datable to the 14th century. The pottery consists mainly of medieval coarse ware, and pit 169 in particular contained large sherds, suggesting the material is not residual. Several vessels of intrinsic interest are described (Fig. 16, nos 23–27).

- Not ill. Probable jug rim with internal bevel: London-type ware (fabric 36), unglazed with all-over white slip-coating, very fragmentary but possibly from a tulip-shaped baluster (*cf.* Pearce *et al.* 1985, fig. 37), datable to the late 13th–14th century, contemporary with the Mill Green and Kingston-type jugs. Fill 74, pit 84.
23. Jug rim (B4A): unclassified buff ware (fabric 34), uniform buff fabric, sparse flint tempering, unglazed. Fill 86, pit 84.
  24. Small cooking-pot (H1 rim): medieval coarse ware (fabric 20), dark grey surfaces, red-brown cores, spalled in places, wheel-thrown. Fill 170, pit 169.
  25. Cooking-pot (E5A rim): medieval coarse ware (fabric 20), similar to No. 24. Fill 170, pit 169.
  26. Cooking-pot rim (H3): medieval coarse ware (fabric 20), hard fabric, pale grey with dark grey external surfaces. Fill 170, pit 169.
  27. Cooking-pot rim (E1): medieval coarse ware (fabric 20), light grey with dark grey surfaces. Fill 170, pit 169.

### Period XI.1

A moderate amount of pottery, 133 sherds weighing 1.5kg, was recovered from a road-side ditch and a pit, and is broadly datable to the 15th to 16th century. Late medieval sandy orange ware and the early type of post-medieval red earthenware predominate in both features, although ditch 10 also contained much residual material. Late medieval sandy orange forms consist of unglazed jugs, one of which is illustrated (Fig. 16, no. 28) and one with an everted rim (B2A), as well as a probable cistern with a thickened rim (B3).

28. Jug (B1 rim): sandy orange ware (fabric 21), uniform orange fabric, pulled spout, incised horizontal line decoration, bib of plain lead glaze below spout, 15th century. A comparable example has been excavated from a building phase dated to between 1425 and 1521 at King John's Hunting Lodge, Writtle (Ecclestone and Reidy 1993, 226). Fill 54, pit 22.

The post-medieval red earthenware (fabric 40) is of the early smooth, slip-painted type dated to the 15th to 16th century.

Forms include a cistern or large jar (Fig. 16, no. 29), and a handle with a central thumb-made groove along its length, probably from a large jug or cistern (Cunningham 1985a, fig. 6.36). Also in this fabric is a faceted sherd with a partial honey-coloured glaze, possibly a fluted base from a type E3B pedestal cup (Cunningham 1985a, fig. 9.59), which was common in the 15th century.

29. Rim (E2) and handle: post-medieval red earthenware (fabric 40), abraded, occasional splashes of glaze, uniform orange with darker reddish surfaces, possibly from a cistern, but unlike those recorded by Cunningham at nearby Moulsham Street the handle originates from the rim and not the neck, and the rim is lid-seated, so it may in fact be from a handled jar. Fill 23, pit 22.

### Post-medieval pottery

A moderate amount of post-medieval pottery, 175 sherds weighing 3kg, was recovered (see archive report), although mixed with much residual medieval material. An orchard soil (period XI.2/XII) produced post-medieval earthenware, mainly of the early type seen in period XI.1 but including a later type with a black glaze dated to the late 16th to 17th century. A gravel quarry in area B (period XIII) contained a typical range of pottery dating from the late 17th to early 19th century. A bowl dated to the later 16th century (Fig. 16, no. 30) is illustrated, even though it is residual, as it is an unusual variant of the published form.

30. Bowl: post-medieval red earthenware (fabric 40), a wider, shallower version of a type B3B bowl (Cunningham 1985a, fig. 3.14), smooth fabric, plain internal lead glaze, a type that first appears, and was commonest, in the period c.1560–90 at Moulsham Street, Chelmsford (Cunningham 1985b, 68, table 5). Residual in fill 105, pit 113, period XIII.

### 16 Baddow Road

A total of 296 sherds of medieval and early post-medieval pottery, weighing 4.2kg, was recovered, with an average sherd weight of 14.2g (Table 4). A further 183 sherds of post-medieval pottery, weighing 2.8kg, were also recovered but is summarised. A detailed record of all the pottery is held in archive.

### Period X.1

A small amount of pottery, twelve sherds weighing 233g, was recovered from period X.1 levelling deposits. A few sherds of Hedingham fine ware (fabric 22) are present. A sandy orange ware handle (Fig. 17, no. 1) from bank 90, the earliest deposit in the sequence, confirms that period X.1 cannot be dated any earlier than the 13th century. Coarse wares consisted of medieval coarse ware (fabric 20) and a few sherds of early medieval ware, including the rim of a possible tripod pitcher (Fig. 17, no. 2). Period X.1 is dated to the early/mid-13th century by the Hedingham ware and sandy orange ware, and by the absence of Mill Green Ware.

1. Handle with incised wavy line along it, sandy orange ware variant (fabric 21+). Bank 90.
2. Possible tripod pitcher rim (D13/A2A) with handle, early medieval flinty ware (fabric 13f). Levelling 81.

### Period X.2

Fabrics (codes)	X.1	X.2	X.3/XI.1	XI.2	Totals
Shell-tempered ware (12A/B/C/Cf)	1		2		3
Early medieval ware (13/13f/13t)	1				1
Medieval coarse ware (20)	4	53	68	1	126
Mill Green coarse ware (20C)		11	8		19
Hedingham coarse ware (20D)		27	2		29
Sandy orange ware (21/21+)	2	11	23		36
Hedingham fine ware (22/22B)	4				4
Kingston-type ware (23D)			1		1
Mill Green Ware (35)		7	15		22
Post-medieval red earthenware (40)			15	32	47
Tudor Green ware (41)			1	2	3
Raeren stoneware (45C)				2	2
Frechen stoneware (45D)				3	3
<b>Sherd totals</b>	<b>12</b>	<b>108</b>	<b>135</b>	<b>40</b>	<b>296</b>
<b>Total weight (g)</b>	<b>233</b>	<b>1,849</b>	<b>1,590</b>	<b>581</b>	<b>4,253</b>

TABLE 4: 16 Baddow Road, medieval and early post-medieval pottery fabrics quantified by sherd count per phase, with the total weight of pottery per phase

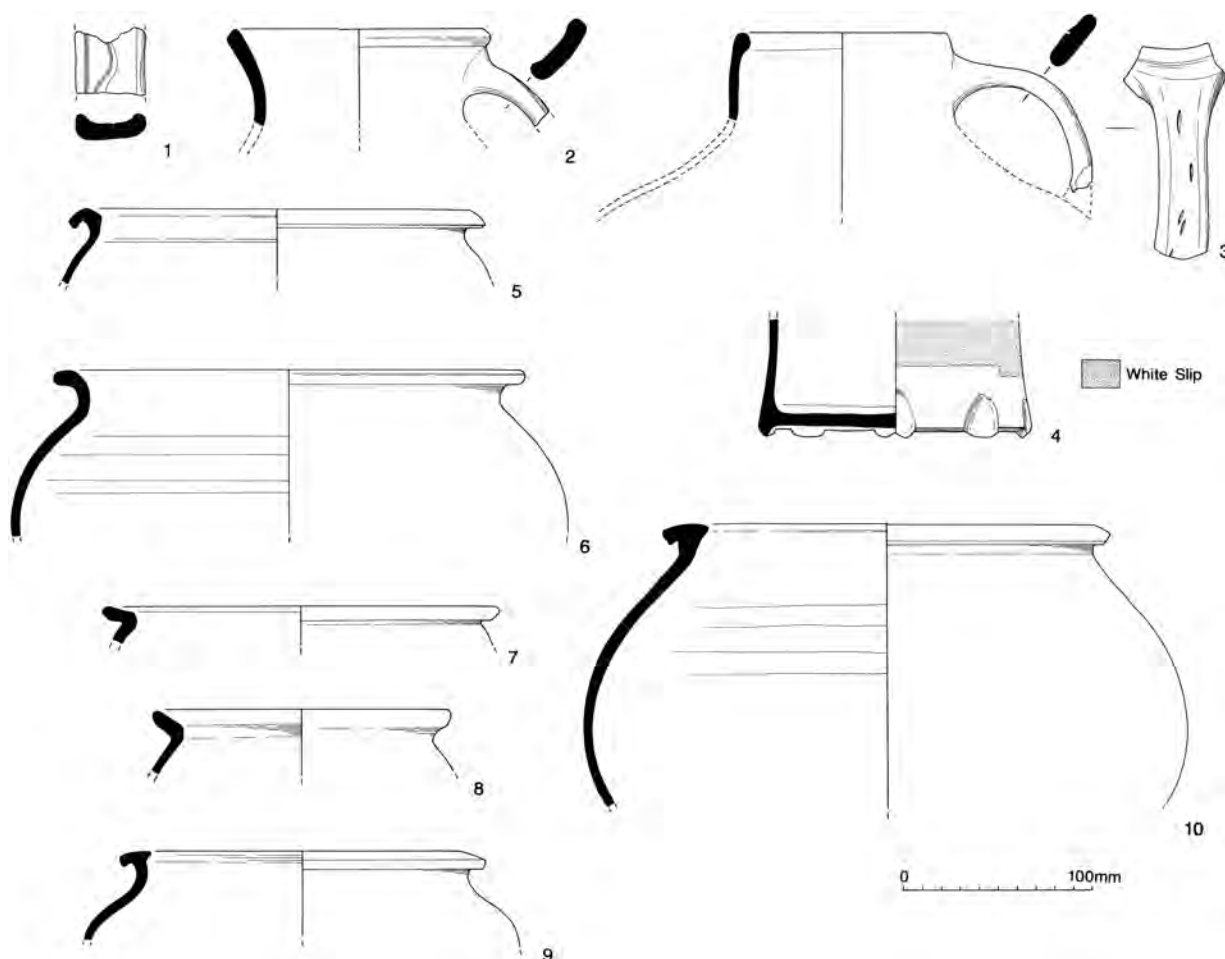


FIGURE 17: 16 Baddow Road (AS), medieval pottery, nos 1–10

Rather more pottery, 108 sherds weighing 1.8kg, was recovered from period X.2, mainly from the earliest road surfaces of the medieval forerunner of Baddow Road but also from the levelling for Building 1 alongside it. Mill Green fine ware (fabric 35), dating to the mid-13th to mid-14th century,

appears for the first time, although in small amounts, along with a single sherd of Kingston-type ware (fabric 23D), dating to the late 13th to 14th century. The only recognisable form is a Mill Green fine ware jug handle with a line of stabbing down its centre (*cf.* Pearce *et al.* 1982, fig. 5.9). The earliest road

surface 84 is dated by Mill Green fine ware to the mid-13th century or later, while the slightly later Kingston-type ware came from the second road surface 76.

Coarse wares predominate, consisting of a large amount of medieval coarse ware and smaller amounts of Mill Green and Hedingham coarse wares (fabrics 20C and 20D). Early medieval shelly and sandy wares are completely absent. Forms include a medieval coarse ware jug rim with a stabbed handle (Fig. 17, no. 3), a sandy orange ware jug with a thumbled base and slip decoration (Fig. 17, no. 4) and cooking-pots in Mill Green and Hedingham coarse wares (Fig. 17, nos 5–9). Several of the cooking-pots show similarities to those of periods X.3–X.5 at the Meadows Car Park, including medieval coarse ware pots with flanged E5A rims (*cf.* CF14, no. 25). Period X.2 is dated to the mid-13th to 14th century on the basis both of the fine and coarse wares present.

3. Jug rim (B1) with stabbed handle, medieval coarse ware (fabric 20). Road gravel 76.
4. Jug, thumbled base, sandy orange ware (fabric 21) with band of white slip. Road gravels 73 and 76 (joining sherds).
5. Cooking-pot rim (D2), Mill Green coarse ware (fabric 20C). Road gravel 76.
6. Cooking-pot rim (D2), Mill Green coarse ware (fabric 20C) with external sooting up to shoulder and below neck. Road gravel 84.
7. Cooking-pot rim (E5A), Mill Green coarse ware (fabric 20C). Residual in soil 70, period X/XI.
8. Cooking-pot rim (E1), Hedingham coarse ware (fabric 20D) with external sooting under rim. Road gravel 73.
9. Cooking-pot rim (E6), Hedingham coarse ware (fabric 20D) with external sooting around neck, Road gravel 73.

#### Period X.3/XI.1

A moderate amount of pottery, 134 sherds weighing 1.6kg, was recovered from period X.3/XI.1, mostly from levelling 52 at the beginning of the phase. Mill Green Ware is the only fine ware, although with no recognisable forms. The majority of the pottery in levelling 52 is medieval coarse ware and sandy orange ware, with very small amounts of Mill Green and Hedingham coarse wares. A sandy orange ware jug neck is probably a copy of a Mill Green form. Otherwise the only forms are medieval coarse ware cooking-pots which, in addition to the illustrated example (Fig. 17, no. 10), include rim forms E1, E5A and H3, all of which are present in contexts of the late 13th to 14th century at the Meadows Car Park (periods X.3–X.5). The pottery in levelling 52 is similar to that from period X.2 and could have been deposited in the 14th century rather than being residual. A small amount of early post-medieval red earthenware (fabric 40) in the latest deposits of period X.3/XI.1 suggest a disuse date in the late 15th century.

10. Cooking-pot (E6 rim): medieval coarse ware (fabric 20), red-brown laminated fabric. Levelling 52.

#### Period XI.2

A small amount of pottery, 40 sherds weighing 581g, was recovered from period XI.2, consisting entirely of early post-medieval fabrics, with only a single residual medieval sherd. Most of the pottery was the early type of post-medieval red earthenware, including a 15th-/16th-century cup and a cistern, with a few sherds of Tudor green ware (fabric 41). Sherds of Raeren and Frechen stoneware jugs imported from the Rhineland (fabrics 45C and 45D) suggest that the phase continued at least into the mid-16th century.

#### Post-medieval pottery

A total of 183 sherds of post-medieval pottery, weighing 2.8kg, was recovered from the sequence of later building phases. The later version of post-medieval earthenware (fabric 40) predominates, with small amounts of Frechen and Westerwald stonewares from the Rhineland (fabrics 45D and 45F), southern white ware (fabric 42) and English tin-glazed ware (fabric 46A), having an overall date range of the late 16th to 18th century. The construction of Building 3 (period XI.3/XII) is dated to the later 16th century by rim fragments of a post-medieval red earthenware C15-type cistern with painted slip decoration around the shoulder (*cf.* Cunningham 1985a, figs 6.37 and 7.38), which were most common in the period c.1560–90 (Cunningham 1985b, 68–70). Flanged plates or dishes (Cunningham 1985a, form A2) indicate that this phase continued through the 17th century. The later reconstruction of the building (period XIII) is dated by English tin-glazed ware to the later 17th to 18th century.

#### *Salvation Army, 70 Baddow Road*

A small amount of medieval pottery, consisting of forty-seven sherds weighing 0.5kg, was recovered, almost all from the top of a channel of the River Can and levelling above it in the 14th century (Walker 2008). The disturbed silts at the top of the channel (28, 30) are dated by fragments of a small rounded or bi-conical Kingston ware jug (fabric 23D) to c.1310–60 (Pearce and Vince 1988, fig. 41). Pottery from the overlying levelling of period X (22) includes jug fragments with in-turned rims in medieval coarse ware (fabric 20) and medieval Harlow Ware (fabric 21D; Davey and Walker 2009) dated on this site to the 14th century, together with Mill Green fine and coarse wares (fabrics 35 and 20C). This small assemblage is comparable with the pottery of periods X.3–X.5 at the Meadows Car Park and period X.2–X.3 at 16 Baddow Road, and indicates that the river channel silted up and was levelled over in the 14th century.

#### *Odeon Roundabout, Parkway*

A larger amount of medieval pottery was recovered from boundary ditches and pits of periods IX–X, although there are few groups of any size. Since the assemblage is similar to those from the other sites the pottery has not been analysed in detail, and this summary is based on pottery spot-dating notes by C.M. Cunningham. The pottery is mainly dated to the late 12th to 14th century and includes the same range of fabrics as seen on the other sites: Hedingham and Mill Green fine wares (fabrics 22 and 35), shell-tempered ware (fabric 12), medieval coarse ware (fabric 20) and sandy orange ware (fabric 21). The earliest features contained a small amount of London-type ware (fabric 36), dated in London mainly to the mid-12th to 13th century (Pearce *et al.* 1985) but probably not current in Chelmsford until the late 12th century. London-type ware is almost completely absent from the other sites and its presence at the Odeon Roundabout suggests a slightly earlier start date for the medieval activity there, in the late 12th century. As with the other sites, the presence of Mill Green Ware dates the later features to the mid-13th to 14th century. There is no well-stratified late medieval pottery, as the period XI soil layer sealing the medieval features contained a mixture of medieval wares and post-medieval red earthenware (fabric 40) dated to the 16th century.



### *Discussion*

Although the pottery assemblages are relatively small, they are significant in that they are the first from medieval Chelmsford to be published in detail. Most of the pottery has a date range of the late 12th to 14th century, with smaller amounts of pottery of the 15th and 16th centuries. In the 13th century fine wares are dominated by Hedingham Ware, but in the later 13th and 14th centuries it was progressively replaced by the locally produced Mill Green Ware, together with small amounts of Kingston-type ware. Early medieval shelly and sandy coarse wares are present only in the earlier phases at the Meadows Car Park site and are almost completely absent at 16 Baddow Road. Coarse wares are dominated by medieval coarse ware, which forms almost half of the overall assemblage, with smaller amounts of Hedingham and Mill Green coarse wares and sandy orange ware. London-type ware was found mainly at the Odeon Roundabout site, where activity may have started a little earlier than at the other sites. A fragment of a medieval Harlow Ware jug in a 14th-century context at the Salvation Army site represents the easternmost point of distribution of this ware. Forms consist mainly of cooking-pots, although there are some coarse ware jug forms as well as the more usual fine ware jugs. An unusual form is a chimney pot at the Meadows Car Park (Fig. 15.1). Other 13th-century examples have been found on the outskirts of Chelmsford on a farmstead at the Boreham Interchange site, where they were probably used in relatively simple timber buildings (Walker 1999, 37).

The earliest groups at both the Meadows Car Park and 16 Baddow Road are most likely dated to the first half of the 13th century, soon after the foundation of Chelmsford as a market town in 1199. In particular, the pottery assemblages lack the quantity of early medieval fabrics seen at nearby Maldon (Walker 2015) and Chipping Ongar (Walker 2011). Chipping Ongar, established as a market town in the mid-12th century, provides an interesting comparison. The range of pottery in the earliest phase at Chipping Ongar is generally not found on the sites analysed here, reflecting Chelmsford's slightly later foundation date, in 1199. The late medieval and early post-medieval pottery is mostly unremarkable, although some unusual vessel forms are described.

### **Brick** by Patrick Allen

#### *16 Baddow Road*

Complete bricks were sampled from three features: drain 43/44 (period XI.2) and wall 17 and drain 25 (period XI.3), all dated by pottery to within the 16th century. They are Tudor place bricks, orange-red, with irregular arrises and rough bases, measuring 225–240mm × 110–115mm × 50mm (9in × 4½in × 2in) (Ryan 1996, 95). One brick in wall 17 was abnormally large, having a breadth and depth of 140mm × 60mm (5½in × 2½in), but otherwise these bricks are typical.

### **Tile** by Patrick Allen

Moderate amounts of medieval/early post-medieval tile were recovered from contexts dating from the late 13th to 16th century: sixty-four fragments weighing 2.3kg from the Meadows Car Park and eighty-five fragments weighing 6.9kg from 16 Baddow Road. This material has been recorded in full (details in archive), but the tile from contexts dating to the 17th to 19th centuries has only been scanned (it is almost all peg-tile with occasional pantiles). The tile is flat, sometimes

with a slight curve, and although it is too fragmented to assess overall size, it is of normal thickness, 12–16mm. It is mainly in a hard dark red fabric, often with a reduced core, although some fragments are sandier and orange-red in colour. It is roof tile, with several examples of a peg hole at the corner for a nail to attach the tile to a roof batten, while a few show evidence of a white mortar skim applied to fix overlapping tiles. The assemblages confirm that roof tile was common in medieval Chelmsford.

#### *16 Baddow Road*

Two fragments of tile, one with a peg-hole, were recovered from road surface 75/76 of period X.2, dated by pottery to the late 13th to mid-14th century. Roof tile became much more frequent in periods X.3/XI.1 and XI.2, dated to the later 14th to 16th century, with examples both of peg holes and mortar skim. It is likely that all the buildings recorded at 16 Baddow Road would have had a tile roof.

#### *Meadows Car Park*

A small amount of tile was recovered from the fire destruction debris of Building 1 of period X.3 (levelled off at the beginning of period X.4), dated by pottery to the 14th century. Examples with peg holes and mortar skim are found in the fills of ditch 10 and pit 22 of period XI.1, dated to the 15th to mid-16th century. By this period the site had become open ground and the tile from periods X.5 and XI.1 would have been residual, derived from earlier buildings on the site or nearby. Again, it is likely that the buildings recorded at the Meadows Car Park would have had a tile roof.

#### *Roman tile*

Quite a large amount of residual Roman tile was recovered from medieval contexts, 9.6kg from the Meadows Car Park and 8.4kg from 16 Baddow Road. It was reused as hard-core in major construction phases at both sites during the 13th century, especially the period X.1 gravel surface at the Meadows Car Park and the period X.2 road surfaces at 16 Baddow Road. It would have been readily available from the demolition rubble of the nearby Roman temple (Wickenden 1992, 39–42).

### **Baked clay walling** by Hilary Major

#### *Meadows Car Park*

A large deposit of baked clay walling material, consisting of 514 fragments weighing 9.2kg, was recovered from context 15 of period X.4, dated to the 14th century. This material was mixed with fire destruction debris from the underlying Building 1 of period X.3, incorporated in the make-up for its replacement, Building 2 of period X.4. A further thirty-six fragments, weighing 451g, are residual examples of this material and are not analysed below. Three fabrics are present.

Fabric A consists of a well-mixed clay, light brown in colour, with moderate sand. The surface varies in colour from buff to off-white. Virtually all the fragments have one flat surface, and the white surfaces may represent a wash or other surface preparation. Occasionally the surface had burnt clay adhering to it as a result of the destruction by fire. The largest piece measures around 70mm × 60mm and the thickest was 36mm thick. No marks were identified on the backs of the fragments. Fabric A is quantified by surface treatment in Table 5.

Surface treatment	No. pieces	Weight (g)
White surface	216	4404
Buff surface	256	3319
No surface	19	164
<b>Total</b>	<b>491</b>	<b>7,887</b>

TABLE 5: Meadows Car Park, quantification of baked clay wall fabric A by surface treatment

Fabric B is a less sandy fabric, similar in colour to fabric A, but slightly mottled as it is not so well mixed. It has sparse to moderate small, chalk fragments and sparse small pebbles. All the fragments have one flat surface. The largest piece measures around 40mm × 40mm and 20mm thick. There are no impressions on the back. Total twenty-two pieces, weight 318g.

Fabric C. A light brown fabric with fairly heavy vegetable tempering and occasional sand. There were no original surfaces. One fragment only, weight 29g.

None of the baked clay fragments had wattle impressions and the flat faces of the pieces in fabrics A and B suggest that they originally formed wall finishes. Fabric A has few inclusions and probably derives from a fairly pure clay or brickearth, but fabric B has fine chalk and pebble inclusions. Both fabrics, however, are much more even than the daub used as the main material in wall construction, which traditionally is less well mixed and is tempered with straw and other material. In this respect the vegetable-tempered fragment of fabric C is typical of main wall construction. The smooth surfaces of fabrics A and B indicate that this material was used as a finishing on the outer face of a wall already constructed of daub and was most likely whitewashed. There are no signs of daub on the back of the wall-facing fragments, although these may have flaked off cleanly when the building was destroyed by fire.

## ENVIRONMENTAL EVIDENCE

**Animal bone** by Julie Curl with Joyce Compton  
*Meadows Car Park*

The animal bone was assessed following a modified version of guidelines issued by English Heritage (Davis 1992), but the assemblage is too small and fragmented to warrant full analysis. A detailed report and data spreadsheet are available in the archive.

### Assemblage composition

A total of 182 pieces of animal bone, weighing 2.3kg, was recovered from medieval contexts of periods X and XI dating from the 13th to mid-16th century. Most of the bone came from late medieval pit fills, which yielded nearly 55% of the remains, although bone was also recovered from drains/ditches and levelling layers. Very little came from floor surfaces within buildings. The assemblage is generally in good condition, although most elements have been fragmented from butchering and wear, with only a few complete elements present. A slightly gnawed sheep/goat metatarsal from 14th-century pit 169 (period X.5) suggests either scavenging activity or food waste given to dogs.

### Species range and modifications

Eight species can be identified, with other remains (often heavily fragmented and with no diagnostic zones) only identifiable as 'mammal', 'bird' or 'fish' (von den Driesch 1976; Hillson 1992). Most of the identifiable remains are from the main domestic food mammals and birds, although there are occasional identifications of equid, hare and cod. Quantification of the assemblage by species, number of identified species by period (NISP) and phase are presented in Table 6.

Species	Phase and Species NISP						Total
	X.1	X.2	X.3	X.4	X.5	XI.1	
Bird			1			1	2
Bird—Fowl					2		2
Bird—Goose			1		2		3
Cattle	1	1	4	2	6	2	16
Equid	1			1			2
Fish					18		18
Fish—Cod					10		10
Mammal	2	3	12	26	20	24	87
Pig/boar		5	1	4	2	4	16
Sheep/goat		2	3	5	9	6	25
Hare				1			1
<b>Total by Phase</b>	<b>4</b>	<b>11</b>	<b>22</b>	<b>39</b>	<b>69</b>	<b>37</b>	<b>182</b>

TABLE 6: Meadows Car Park, quantification of the faunal assemblage by phase, species and NISP

The bulk of the cattle had reached an adult age, with just two juvenile bones identified. The cattle elements consisted of a range of parts of the body, with a slightly higher number of lower limb, foot and head bones, suggesting more primary waste and poor cuts of meat, and fewer good quality meat-bearing bones. The butchering of the cattle included meat preparation and removal, along with evidence of skinning and dismemberment.

Sheep/goat was recorded in larger numbers than the cattle, and a greater age range was seen, with adult, sub-adult and juvenile remains. Period X.5 pit 169 (fill 170), dated to the later 14th century, yielded sections of skulls from two individual sheep, one with no horns, and one piece of skull with the base of a robust horncore attached. This had been chopped and cut at the base, suggesting removal of the horn for working.

The pig/boar bone is most likely from domestic pigs as there is no obvious evidence of boar remains. All of the porcine remains are from juveniles, which is typical from most sites and of an animal that is largely raised for meat. The range of head and limb elements suggests that the whole animals were processed and consumed at the site, which was common in the medieval period when many people kept their own pig for meat.

An equid metacarpal was found in drain 167 (fill 163) of period X.1, dated to the early/mid-13th century; metrical data from this bone indicates a pony of approximately 13½ hands

high. A single bone, a tibia, from a hare was recovered from floor surface 46 of Building 2 of period X.4; this bone had been chopped, attesting to the hare's use for meat, and the bone also has the appearance of being boiled.

Bird bone was also recovered, with fowl and goose identified. Birds often do not exhibit a great deal of butchering, particularly smaller birds and when they are cooked reasonably whole. In this assemblage, the larger goose bones, from the period X.3 levelling (81), and period X.5 pits 84 (fill 86) and 169 (fill 170), show some butchering, with chop marks on wing and leg bones, where the bird would have been trimmed for cooking, and from division before or after cooking.

Fish bone was found in pit 169 (fill 170) of period X.5, dated to the later 14th century, and although some was fragmentary and unidentifiable several vertebrae are identified as cod.

#### *Salvation Army, 70 Baddow Road* by Joyce Compton

A small assemblage of animal bone, seventy pieces weighing 3.65kg, was recovered from infilling of the former river channel in periods X and XI, dated to the 14th to 16th century. The bone was recorded following Schmid (1972). The bone is fragmentary but generally in good surface condition. Most of the identifiable bone is sheep/goat. Its fragmentary nature may have biased assignment to taxon, but there are few bones identified broadly as large mammal and the apparent preponderance of mutton bones may be genuine. Bird, fish and frog bones were present in the soil sample residues.

A group of horse bones was found in period X levelling 22, dated to the 14th century, comprising eight pieces weighing 2.5kg. Cranium, tibia, femur and scapula were certainly identified, and the large mammal bones in this layer are also likely to be horse. The cranium and tibia are complete, but the scapula and the femur are fragmented. The bones are likely to have derived from a single animal, a mature adult male, probably dying of natural causes, and deposited during infilling of the river channel for convenience of disposal.

#### *Discussion*

The bone assemblage from the Meadows Car Park site consists of primary and secondary butchering and food waste from the main domestic food mammals and birds, as well as fish, and the assemblage from the Salvation Army site is broadly similar. The assemblages from both sites are dominated by sheep/goat, which is to be expected in the medieval period, where there were increasing demands to produce wool for the wool trade. The range of ages, including sub-adult and juveniles suggest a mixed use, perhaps with the animals being used for milk and supplying younger meats, as well as supplying fleeces and other by-products. The Salvation Army site produced the remains of an adult male horse, deposited within a levelling layer along with other dumped rubbish. This, and the remains of a pony at the Meadows Car Park, is a reminder of the extensive use of horses in medieval Chelmsford.

#### **Plant macrofossils** by Val Fryer and Peter Murphy

##### *Meadows Car Park*

Material from six bulk soil samples was analysed. Two samples came from the floodplain of the River Can (sample 4) and the period X.1 flood drain, dated to the early/mid-13th century (sample 5), while four came from fire-scorched floor surface

24 and the fills of oven 80 in Building 1 of period X.3, dated to the late 13th to early 14th century (samples 1–3 and 6).

#### **Method**

Plant remains were extracted from samples 1–3 and 6 by manual water flotation, collecting the flots in a 500-micron mesh sieve. The dried flots were sorted under a binocular microscope at low power. Samples 4 and 5 had already been processed by wet sieving and flotation on site, but the damp residues were reprocessed using the above technique, and additional very organic flots were recovered. These were sorted wet under a binocular microscope at low power. Quantitative analysis of this material was not undertaken as insufficient information was provided about the on-site processing. The plant remains from the flood deposits are tabulated below (following Stace 1997), and full details of the other plant remains identified are listed in archive.

#### **Wild flora from river flood deposits**

Both sample 4 (river floodplain) and sample 5 (flood drain 167, period X.1, early/mid-13th century) contained large quantities of waterlogged seeds and fruits (Table 7).

The assemblage indicates a damp grassland habitat subject to flooding. Although sample 4 was from a pre-settlement context, a certain amount of disturbance of the surface of the flood deposit can be inferred from the presence of, for instance, *Atriplex* sp. (orache), *Tripleurospermum maritimum* (scentless mayweed) and *Anthemis cotula* (stinking mayweed) which are all common segetal species on heavy clay soils. Sample 5 from drain 167 contained a greater diversity of wetland and segetal species with, in addition, rare remains of hedgerow and scrub species in the form of blackberry and elderberry. No evidence was found that the drain had carried sewerage (bran fragments were not present) and the plant assemblage is consistent with its interpretation as a drainage ditch dug to control river flooding.

#### **Crop and other plant remains from Building 1, period X.3**

A small number of cereal grains were recovered from sample 1 (scorched floor 24) and samples 2–3 and 6 (oven 80, fills 61, 78, 96) in Building 1 of period X.3. Most were in very poor condition, having become very puffed and distorted during carbonisation, making identification to species almost impossible. A few grains of each of the following have been tentatively identified: *Triticum* sp. (wheat), *Hordeum* sp. (barley), *Secale cereale* (rye) and *Avena* sp. (oats), although it was not possible to ascertain whether the oats were a cultivated or wild variety. A single cotyledon of a large Leguminosae, *Pisum* sp. or *Vicia* sp., was probably from a pea or a bean.

Carbonised seeds of wild flora species were recovered from all of samples 1–3 and 6, but at very low densities. Many were impossible to identify because of distortion during carbonisation, but those identified were all common segetal species. Sample 3 from oven 80 (fill 78) produced a large number of twig fragments as well as fragments of burnt bark and buds, representing the remains of kindling.

#### *Salvation Army, 70 Baddow Road*

Three samples were analysed, all from the uppermost silt deposits 28, 29 and 30 (CF56 samples 1, 3 and 4) in the former channel of the River Can.

Species	Common name	Sample 4 124 (floodplain)	Sample 5 171 (drain 167)
<i>Caltha palustris</i>	Marsh marigold	+	
<i>Ranunculus a/r/b</i>	Buttercup	+++	+++
<i>Ranunculus sceleratus</i> (L.)	Celery-leaved crowfoot		+
<i>Rorippa islandica</i> (Oeder) Borbas	Marsh yellow-cress		+++
<i>Caryophyllaceae</i> undet.	Carnation family		+
<i>Stellaria</i> sp.	Stitchwort		+
<i>Chenopodium ficifolium</i> Sm.	Fig-leaved goosefoot	+	+
<i>Chenopodiaceae</i> undet.	Goosefoot family		+
<i>Atriplex</i> sp.	Orache	++	+++
<i>Myriophyllum</i> sp.	Water milfoil		+
<i>Polygonum persicaria/lapathifolium</i>	Persicaria		+
<i>Polygonum hydropiper</i> L.	Water pepper		++
<i>Polygonaceae</i> undet.	Knotweed family		+
<i>Fallopia convulvulus</i> (L.) A. Love	Black bindweed		+
<i>Rumex</i> sp.	Dock	+++	+++
<i>Urtica dioica</i> sp.	Stinging nettle	+	+
<i>Mentha</i> sp.	Mint	+	+
<i>Lycopus europaeus</i> L.	Gipsy-wort	+	
<i>Plantago</i> sp.	Plantain		+
<i>Anthemis cotula</i> L.	Stinking mayweed	+	+
<i>Tripleurospermum maritimum</i> (L.) Koch	Scentless mayweed	+	
<i>Alisma</i> sp.	Water plantain	+++	+
<i>Juncus</i> sp.	Rush		+++
<i>Lemna</i> sp.	Duckweed	+++	+
<i>Eleocharis</i> sp.	Spike-rush		+
<i>Carex</i> sp.	Sedge		+++
<i>Alopecurus geniculatus</i> L.	Marsh foxtail		+
<i>Cirsium</i> sp.	Thistle	+	
<i>Sonchus asper</i> (L.) Hill	Sow thistle	++	+
<i>Rubus</i> sp.	Blackberry family	+	+
<i>Sambucus nigra</i> sp.	Elderberry		+
<i>Gramineae</i> undet.	Grasses	+	++
<i>Inderminate seeds</i>		++	++
Sample volume (litres)		3.0 (sub-sample)	3.0 (sub-sample)

Key: + present; ++ common; +++ abundant

TABLE 7: Meadows Car Park, samples 4 and 5, quantification by species

### Method

The samples were processed by wet-sieving with flotation using a 0.5mm mesh and collecting the flotation fraction (flot) on a 0.5mm sieve. Since sample 3 (context 29) comprised mainly plant material, only 50% of the sample was processed. The flots mainly comprise root material, although samples 3 and 4 both produced wood fragments and seeds. The dried flots were scanned under a binocular microscope at magnifications up to x16, and the plant macrofossils noted are listed in archive. Nomenclature follows Stace (1997).

### Wild flora from river flood deposits

The assemblages were almost entirely composed of de-watered root/stem fragments, seeds of dry-land herbs and wetland plants and tree/shrub macrofossils. Preservation was moderately good.

Seeds of dry-land herbs were especially abundant within the assemblage from sample 4 (river silt 30) but also occurred within the other samples. Ruderal and colonising species were common, including *Conium maculatum* (hemlock),

*Lamium* sp. (dead-nettle), *Lapsana communis* (nipplewort), *Solanum nigrum* (black nightshade) and *Urtica dioica* (stinging nettles). Seeds of grassland herbs were also recorded, including *Ranunculus* sp. (buttercup) and *Stellaria media* (chickweed), along with a limited range of common segetal weeds, *Anthemis cotula* (stinking mayweed) and *Atriplex* sp. (orache). Wetland/aquatic plant macrofossils also occurred in all the assemblages, including seeds/fruits of *Lemna* sp. (duckweed) and *Ranunculus* subg. *Batrachium* (water crowfoot), and *Phragmites* sp. (reed) culm fragments/nodes were a major component within sample 3 (peat layer 29). Tree/shrub macrofossils were rare but included *Rubus* sect. *Glandulosus* (bramble) 'pips', *Sambucus nigra* (elderberry) seeds and a single fragment of *Corylus avellana* (hazel) nutshell. Other remains were exceedingly scarce but included de-watered arthropods and *Cladoceran ephippia* (water flea eggs).

The samples from the uppermost fills of the river channel are somewhat perplexing as, although the macrofossils have been preserved by deposition in anaerobic conditions, wetland/

aquatic species are relatively scarce within the assemblages. The exception to this is sample 3 (peat layer 29), which appears to be largely composed of compressed mats of reed stems, most of which are covered with dense silt concretions. The evidence suggests that the channel was probably situated within an area of overgrown, scrubby, damp grassland, and it is, perhaps, most likely that many of the macrofossils were washed into its fills during one or more episodes of flooding. The few aquatic plant remains recorded suggest that water conditions within the channel were stagnant, but it is unclear why further wetland species are not present.

## DISCUSSION

### Reclamation of the south bank of the River Can

The Can is only a minor tributary of the Chelmer/Blackwater river system, but in the medieval period it was known as 'The Great River' due to its propensity to flood. Historical records suggest that in the Late Saxon period the Can was impassable and travellers diverted via Writtle. The Roman road was not reopened through Chelmsford until the 12th century, following the rebuilding of the bridge over the Can, most likely in 1100–7.

Archaeological and borehole records at the Meadows Car Park and Salvation Army sites confirm that the Can flowed within a wide floodplain, which in the early medieval period was permanently under water almost as far south as Baddow Road. Evidence of scouring and erosion of the uppermost Roman levels at the 16 Baddow Road, Salvation Army and Odeon Roundabout sites suggests periodical flooding over a much wider area, with the overlying deposits representing levelling over boggy ground. Plant remains sampled from river deposits at the Meadows Car Park and Salvation Army confirm that the early medieval riverbank was a damp grassland habitat subject to flooding.

At the Meadows Car Park site, successive phases of reclamation of the south bank of the Can were carried out through the 13th century to prevent flooding, extending for 150m downstream of the Can bridge. A gravel hard and drain along the river bank are dated to the early/mid-13th century (period X.1), forming a flood defence in conjunction with an earth bank at 16 Baddow Road (period X.1). This process was completed in the mid/late 13th century when successive phases of reclamation at the Meadows Car Park (periods X.2–X.3) extended into the river floodplain and raised the ground level above that of the river. It is likely that the reclamation extended right up to the main river channel, although unfortunately any possible waterfront structures would have been destroyed by construction works for the 1960–2 flood relief scheme. The initial riverside development, the gravel hard, is not as precisely dated as the succeeding phases of reclamation, and could possibly be dated to the late 12th century, but a date of *c.*1200 is considered more likely. The gravel hard and flood defences would then have followed the foundation of Chelmsford as a market town in 1199. It may be that the legal status of Chelmsford and Moulsham as a single 'vill' gave an impetus to tackling river flooding on both sides of the Can bridge.

Walker's map of 1591 (Plate 1) shows the Can as forming a pronounced bend to the south of the present river, but the trenching at the Salvation Army site, 120m south east of the Meadows Car Park, recorded the river bend even further to the

south, almost reaching the southern limit of its floodplain. The outside of the river bend had silted by the 14th century and had probably become cut off from the main channel to its north. Plant remains sampled from the top of the river silts show that they had become covered with a layer of peat and matted reed stems. The natural process of silting of the river bend would have been reinforced by the 13th-century riverside reclamation upstream, which partly canalised the main river channel and would have diverted it to the north. The silted river channel was infilled in the 14th century (period X), and although the levelling left a shallow hollow in the top of the former channel it represents a substantial reclamation. This reclamation is similar to the early 13th-century gravel hard at the Meadows Car Park site, in that it raised the riverbank marginally above the river level, but remained vulnerable to occasional flooding. Further reclamation in the 15th to 16th century (period XI) raised the riverbank further above the river flood level.

### River pollution

An interesting footnote to the riverside reclamation is provided by the horse carcass and other organic rubbish in the 14th-century infilling of the river channel at the Salvation Army site. By the later medieval period the dumping of filth in the rivers had become a major problem. Nationally, an act of parliament of 1388 was passed to prevent river pollution, while a local by-law gave the manor court the power to fine offenders (Grieve 1988, 62, 87–8). Court records show that the law was continually breached, and the presence of horse remains and other rubbish dumped in the silted river channel at the Salvation Army comes as no surprise. A record of 1407 wryly comments 'it was said horses led to water would not drink' (Grieve 1988, 62), and the rivers had clearly become unsanitary.

### River traffic

There is some evidence of river traffic in the medieval period. The early 13th-century gravel hard on the south bank of the Can at the Meadows Car Park site (period X.1) would have been suitable for beaching boats of shallow draught. Above the subsequent reclamation levelling of the mid/late 13th century (period X.2), a gravel track leading from Baddow Road towards the Can implies the existence of a wharf or landing stage. It has been suggested that there was a wharf a short distance downstream in the Roman period (Drury 1972, 11 and fig. 1), but the 13th century reclamation at the Meadows Car Park would have enabled cargoes to be landed in a more convenient location upstream, near the Can bridge and the main London-Colchester road.

Baddow Road was the only street in medieval Chelmsford to run alongside either of the rivers and therefore the only area with the potential for a waterfront, although there is no evidence that one developed in the long term. The Can and Chelmer have never been navigable by large vessels and river traffic would have been limited to shallow-draught boats and barges, as even after the improvement in river transport following the Chelmer and Backwater Navigation of 1797, the largest vessels to use the river, the 60ft (18m) motor barges, had a draught of only 2ft (0.6m) (Courtman and Marriage no date, 26–8). Walker's map of 1591 shows an inlet off the southern loop of the Can extending right up to Baddow Road

(Plate 1). The inlet was in part created by the eastern edge of the early 13th-century gravel hard and subsequent reclamation of the river floodplain at the Meadows Car Park site. Sometime before 1591 the inlet would have replaced the landing place at the Meadows Car Park as a transfer point, with cargoes being unloaded from river craft directly onto Baddow Road. This simple landing place would have been adequate for handling relatively small cargoes, and judging by records of more recent river traffic, these would have consisted of agricultural produce and timber, and probably also wool.

### **The development of Baddow Road**

The earliest surfaces of medieval Baddow Road were recorded at 16 Baddow Road, dating from the mid-13th century onwards (period X.2), replacing an earlier Roman road on the same alignment. The road was constructed on top of an earth bank which acted as a flood defence (period X.1) and ran along the south bank of the Can. Like its Roman predecessor, Baddow Road may initially have been a purely local road, because its extension to the east would have run up against the southern loop of the Can as recorded at the Salvation Army site, until the river channel silted and was levelled over in the 14th century (period X). There is a strong case for arguing that the line of Baddow Road, as shown on Walker's map of 1591 (Plate 1), was first established in the 14th century, with the initial 13th-century side-road off the London-Colchester road extended south eastwards over reclaimed land. Walker's map shows Baddow Road as a through-road with a branch serving Moulsham Mill, and it is suggested that this was the later medieval layout. One advantage of extending Baddow Road was that it enabled it to serve an inlet off the Can, located between the Meadows Car Park and Salvation Army sites (see River Traffic, above). It is likely that there was a predecessor of Baddow Road in the early medieval period, probably a rough track in part using the former Roman road recorded at 16 Baddow Road, but it would have had to follow a different route further to the south to avoid the river bend at the Salvation Army site.

### **Buildings and trade along Baddow Road**

Buildings were constructed on the south side of Baddow Road from the mid-13th century, when it was first laid out, and further buildings were added on its north side after a short interval, in the late 13th century. These developments followed the construction of flood defences and reclamation levelling in the early/mid-13th century, with the slightly later construction date of buildings on the north side of Baddow Road a result of the need for more extensive riverside reclamation works there. On the south side of Baddow Road, a continuous sequence of buildings was recorded at 16 Baddow Road, extending from the mid-13th century up until the modern era. By contrast, the sequence of buildings at the Meadows Car Park site on the north side of Baddow Road was short-lived, extending only from the late 13th to the 14th century, and by the end of the 14th century the site had become open ground. This is reflected by Walker's map of 1591, which shows the south side of Baddow Road as continuously built-up for a short distance to the south east of the main London-Colchester road but the north side as occupied by an orchard (Plate 1). This indicates an initial burst of construction in the mid-13th to mid-14th

century, with building development continuing in the late medieval period only on the south side of Baddow Road.

The medieval buildings at both 16 Baddow Road and the Meadows Car Park site were timber-framed with brickearth and/or gravel foundations, apart from the initial mid-13th century Building 1 at 16 Baddow Road (period X.2), which may have been of post-in-trench construction. All the buildings appear to have been aligned parallel with the street. The late 13th-century Building 1 at the Meadows Car Park (period X.3), which was well preserved as a result of destruction by fire, includes clear evidence of scorched and robbed base-plates for timber framing, together with probable evidence of a smoke hood and vent above an oven. The demolition debris of this building shows that the walls had smooth clay internal finishes coated with whitewash. Roof tile was found in all building phases, suggesting that the buildings recorded all had tile roofs. Interestingly, a tiler is recorded in Chelmsford in the late 14th century (Grieve 1988, 65). A ceramic chimney pot was recovered from early/mid-13th-century floodplain silts at the Meadows Car Park (period X.1), and although it was not associated with any building its presence nevertheless suggests that chimney pots were a feature of at least some buildings in medieval Chelmsford. The later 16th-century Building 3 at 16 Baddow Road (period XI.3) was timber-framed but was founded on brick sleeper walls and incorporated a brick fireplace and chimney stack. Brick chimneys first became common in this period, and all the houses on Walker's map of 1591 are shown as having one (Plate 1). Brick drains were present in the back yard at 16 Baddow Road from the 16th century (periods XI.2, XI.3).

The late 13th-century Building 1 at the Meadows Car Park site (period X.3) is interpreted as a bakehouse on account of its sequence of ovens and evidence of charred cereal grains, both in the oven fills and on the adjacent floor surface. The late 14th/15th-century Building 2 at 16 Baddow Road (period X.3–XI.1) contained a feature interpreted as the base of a malting kiln. The processing of agricultural produce in Baddow Road comes as no surprise, as Walker's map of 1591 shows several barns at its south eastern end, at the limit of the built-up area (Plate 1). Baddow Road appears to have provided a convenient route into Chelmsford for agricultural produce, both by road and by river, and therefore an important part of the town's system of food supply.

It has been suggested that the 13th- and 14th-century pits at the Odeon Roundabout site (period X) represent a dyer's establishment (Drury 1972, 25), and if so this would represent another important process being carried out at the edge of the town. Documentary evidence indicates that dyers played a leading part in the economy of medieval Chelmsford, together with drapers and mercers (Grieve 1988, 65). Although a dyer's establishment is known next to the River Chelmer (Grieve 1988, 78), there is unfortunately no specific reference to dyers in Moulsham on the south side of the River Can. Nevertheless, a dyer's establishment beside the river in Baddow Road is probable, and its location next to the proposed landing place shown on the Walker map would have been an advantage.

### **Baddow Road and the growth of medieval Chelmsford**

Although Baddow Road was a suburb of medieval Chelmsford, its development reflects that of the main settlement. The

excavated evidence allows the topography of the Baddow Road area as shown on John Walker's map of 1591 (Fig. 2 and Plate 1) to be traced back to its origins in the 12th and 13th centuries, and in some respects back to Roman antecedents.

The founding of Chelmsford as a market town in 1199 would not have been possible without the rebuilding of the bridge over the River Can at the beginning of the 12th century and the reopening of the Roman road through Chelmsford. In the first half of the 13th century the initial development of burgrave plots along the High Street was accompanied by the large-scale construction of flood defences and riverside reclamation along the south bank of the Can immediately downstream of the bridge. It is argued that this also provided a landing place for river craft next to the bridge and the main London-Colchester road. The construction of Baddow Road in the mid-13th century appears to have replaced a minor Roman road that survived flood erosion and led to buildings being constructed alongside it. By the 14th century, reclamation of a silted-up southern bend of the river enabled Baddow Road to be extended south eastwards along the line shown on Walker's map of 1591. Not only did Baddow Road become a through-route leading to Maldon and south east Essex, but it is also suggested that it served a new landing place for river craft in an inlet visible on Walker's map (Plate 1). The development of the south bank of the Can and Baddow Road occurred in a series of rapid changes through the 13th century and into the 14th century, at a time when Chelmsford was expanding, but there appears to have been a relative decline thereafter in the late medieval period. Nevertheless, Baddow Road is considered to have been important through the medieval period and beyond for importing agricultural produce from Chelmsford's hinterland by both road and river.

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#### BIBLIOGRAPHY

- Alexander, J.J.G. 1978, *The Decorated Letter* (London, Thames and Hudson)
- Allen, P. and Lavender, N.J. 2015, *The Meadows multi-storey car park, Baddow Road, Chelmsford, Essex (CF14): archive report* (revision of 1994 report), Essex Historic Environment Record
- Allen, P. and Pocock, M. 2008, *Salvation Army Site, 70 Baddow Road, Chelmsford, Essex: archaeological excavation*, Essex County Council Field Archaeol. Unit report 1834. Available: <<https://doi.org/10.5284/1004238>> (accessed 17 October 2017)
- Allen, Peter and Heppell, E. 2006, *Baddow Road Car Park, Chelmsford, Essex: archaeological and geological desk-based assessment*, unpubl. Essex County Council Field Archaeol. Unit rep. 1674, Essex Historic Environment Record
- Bristow, C.R. 1985, *Geology of the country around Chelmsford. British Geological Survey: Memoir for 1:50,000 geological sheet 241* (London, HMSO)
- Cotter, J. 2000, *The post-Roman pottery from excavations in Colchester 1971–85*, Colchester Archaeol. Rep. 7
- Courtman, D. and Marriage, J. (eds) no date, *Tales of the Chelmer and Blackwater Navigation* (Chelmer Canal Trust, after 2000)
- Cunningham, C.M. 1985a, 'A typology for post-Roman pottery in Essex', in Cunningham, C.M. and Drury, P.J., *Post-medieval sites and their pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeol. Trust Rep. 5, Counc. Brit. Archaeol. Res. Rep. 54, 1–4
- Cunningham, C.M. 1985b, 'The pottery', in Cunningham, C.M. and Drury, P.J. 1985, *Post-medieval sites and their pottery: Moulsham Street, Chelmsford*, Chelmsford Archaeol. Trust Rep. 5, Counc. Brit. Archaeol. Res. Rep. 54, 63–77
- Davey, W. and Walker, H. 2009, *The Harlow pottery industries*, Medieval Pottery Res. Group Occ. Pap. 3
- Davis, S. 1992, *A rapid method for recording information about mammal bones from archaeological sites*, English Heritage AML report 71/92
- Drury, P.J. 1972, 'Preliminary report. The Romano-British settlement at Chelmsford, Essex: Caesarmagos', *Essex Archaeol. Hist.*, 3rd Ser., 4, 3–29
- Drury, P.J., Cunningham, C.M., Kilmurry, K. and Walker, J.S.E. 1993, 'The later Saxon, medieval and post-medieval pottery', in Rodwell W.J. and Rodwell, K.A., *Rivenhall: Investigations of a villa, church and village, 1950–1977*, Chelmsford Archaeol. Trust Rep. 4.2, Counc. Brit. Archaeol. Res. Rep. 80, 78–95
- Drury, P.J. and Pratt, G.D. 1975, 'A late 13th and early 14th-century tile factory at Danbury' *Medieval Archaeol.* 19, 127–32
- Ecclestone, J. and Reidy, K. 1993, 'King John's Hunting Lodge, Writtle: excavations 1991', *Essex Archaeol. Hist.*, 3rd Ser., 24, 224–8
- Edwards, A.C. and Newton, K.C. 1985, *The Walkers of Hanningfield: Surveyors and Mapmakers Extraordinary* (London, Regency Press)
- ERO D/DM P1 & 2, *John Walker's map of Chelmsford and Moulsham, 1591* (Essex Record Office)
- Essex CC 1989, *Chelmsford Kings Head Meadow site: archaeological assessment*, unpublished Essex County Council report in Chelmsford and Essex Museum
- Essex CC 1990, *Chelmsford Kings Head Meadow site: archaeological trial work*, unpublished Essex County Council report in Chelmsford and Essex Museum
- Grieve, H. 1988, *The Sleepers and the Shadows. Chelmsford: a town, its people and its past. Volume 1: The Medieval and Tudor Story* (Chelmsford, Essex Record Office)
- Goldschmidt, A. 1923, *Die Elfenbeinskulpturen aus der romanischen Zeit. XI. bis XIII. Jahrhundert (Elfenbeinskulpturen III)* (Berlin, reprinted 1972)
- Harris, A. and Isserlin, R.M.J. 1994, *Excavations in medieval and post-medieval Chelmsford: the County Town of Essex and its hamlet Moulsham*, unpublished report in Chelmsford and Essex Museum
- Hayward Gallery 1984, *English Romanesque Art 1066–1200*, exhibition catalogue (London, Hayward Gallery)
- Hillson, S. 1992, *Mammal bones and teeth* (London, University College Institute of Archaeology)
- Hurst, J.G., Neal, D.S. and Beuningen, H.J. 1986, *Pottery Produced and Traded in North West Europe 1350–1650* (Rotterdam Papers 6)
- Kauffmann, C.M. 1975, *Romanesque Manuscripts 1066–1190 (A Survey of Manuscripts Illuminated in the British Isles, III)* (London, Harvey Miller)

- MacGregor, A. 1985, *Bone, Antler, Ivory & Horn. The Technology of Skeletal Materials since the Roman Period* (Beckenham and Sydney)
- Meddens, F.M. and Redknapp, M. 1992, 'A group of kiln waste from Harding's Farm, Mill Green, Essex', *Medieval Ceramics* 16, 11–43
- Musée du Louvre 1991, *Le trésor de Saint-Denis*, exhibition catalogue (Paris, Musée du Louvre)
- Pearce, J.E, Vince, A.G, and White, R. 1982, 'A dated type-series of London medieval pottery part one: Mill Green ware', *Trans. London and Middlesex Archaeol. Soc.* 33, 266–98
- Pearce, J.E, Vince, A.G. and Jenner, M.A. 1985, *A Dated Type-Series of London Medieval Pottery Part 2: London-type ware*, Trans. London and Middlesex Archaeol. Soc. special paper 6
- Pearce, J.E. and Vince, A.G. 1988, *A Dated Type-Series of London Medieval Pottery Part 4: Surrey Whitewares*, Trans. London and Middlesex Archaeol. Soc. special paper 10
- Ryan, P. 1996, *Brick in Essex from the Roman conquest to the reformation* (Chelmsford, Pat Ryan)
- Stace, C. 1997, *New Flora of the British Isles*, 2nd ed. (Cambridge Univ. Press)
- Schmid, E. 1972, *Atlas of Animal Bones: For Prehistorians, Archaeologists and Quaternary Geologists* (Amsterdam and London)
- Turner, B.R.G. 1981, *Excavations at 16 Baddow Road, Chelmsford, 1978*, Essex County Council archive report in Chelmsford Museum
- Vince, A.G. and Jenner, M.A. 1991, 'The Saxon and early medieval pottery of London', in Vince (ed.), *Aspects of Saxon and Norman London 2: Finds and Environmental Evidence*, London Middlesex Archaeol. Soc. special paper 12, 19–119
- von den Driesch, A. 1976, *A guide to the measurements of animal bones from archaeological sites*, Peabody Museum Bulletin 1 (Harvard Univ. Press)
- Walker, H. 1994, *Odeon Cinema site, Baddow Road, Chelmsford, Essex. Medieval and later pottery archive report*, unpublished Essex CC report in Chelmsford Museum
- Walker, H. 1999, 'Medieval pottery', in Lavender, N.J., 'Bronze Age and medieval sites at Springfield, Chelmsford: excavations near the Boreham Interchange, 1993', *Essex Archaeol. Hist.*, 3rd Ser. 30, 29–37
- Walker, H. 2008, 'Medieval and later pottery', in Allen, P. and Pocock, M., *Salvation Army Site, 70 Baddow Road, Chelmsford: Archaeological Excavation*, Essex County Council Field Archaeol. Unit report 1834, 11
- Walker, H. 2011, 'Medieval and post-medieval pottery', in Ennis, T., 'A medieval site at Chipping Ongar: excavations at Banson's Lane, 1998', *Essex Archaeol. Hist.*, 4th Ser., 2, 135–50
- Walker, H. 2012, *Heddingham Ware, a medieval pottery industry in north Essex: its production and distribution*, E. Anglian Archaeol. 148
- Walker, H. 2015, 'Medieval and later pottery', in Ennis, T., 'Late Saxon and medieval occupation at the former Bus Station, 148–152 High Street, Maldon: excavation, 1999', *Essex Archaeol. Hist.*, 4th Ser., 6, 295–302
- Wickenden, N.P. 1992, *The temple and other sites in the north-eastern sector of Caesaromagus*, Chelmsford Archaeol. Trust Rep. 9, Counc. Brit. Archaeol. Res. Rep. 75
- Williamson, P. 2010, *Medieval Ivory Carvings: Early Christian to Romanesque* (London, Victoria and Albert Museum)





# Waltham Abbey Panelled Room, Essex

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*The Waltham Abbey panelling is a fascinating and little-studied example of early sixteenth-century woodwork. Previous antiquarian approaches have attempted to identify the patron and original location, but failed to place the panelling's iconography and style into the broader context of sixteenth-century England. This article re-evaluates the panelling in the light of fresh research and extensive observation, offering new possibilities about its origins, location and creation. Fifty-four of 110 carved oak panels are displayed at Epping Forest District Museum, Essex, on long-term loan from the Victoria and Albert Museum (V&A). A group of 100 narrow panels dates to the c.1520s, carved by several bands of varying abilities, possibly with one or more foreigners working alongside native craftsmen. A second group of ten wider panels is dissimilar in design and style, suggesting a different, perhaps Continental hand. Despite two unidentified coats of arms, the panels' original location is unknown. Probably made for Waltham Abbey itself, they may have adorned the Abbey Mansion before moving to 'Green Yard', a house in the town. They could also have been made for Dallance, a nearby manor. The combination of Renaissance medallion portraits, Tudor heraldic devices and Gothic ogee arches shows craftsmen adapting new Continental motifs for the English context.*

## INTRODUCTION

Perhaps only a few hundred metres from the site it first adorned, the early sixteenth-century Waltham Abbey panelling is now displayed at Epping Forest District Museum, Essex (henceforth EFDM) on long-term loan from London's Victoria and Albert Museum. Fifty-four of the 110 oak panels acquired by the V&A in 1899 have recently been redisplayed in Essex (Pl. 1); a further panel is in the British Galleries in the V&A, and the others are in store.<sup>2</sup> Despite the panelling's intriguing history and unusual iconography, since Harold Clifford Smith's book of 1924 only a few local historians have studied this fascinating object.<sup>3</sup>

The town of Waltham Abbey (formerly Waltham Holy Cross) lies in the River Lea valley in south-west Essex, twelve miles north-east of London. The abbey after which the town is named was founded in the twelfth century, and in 1540 was the last to be dissolved in England. According to tradition, it was in the abbey's 'Romeland' that Henry VIII first discussed divorcing Katherine of Aragon, and in nearby Epping Forest, nine years later, he waited to hear the gun signalling Anne Boleyn's execution.<sup>4</sup> Following the dissolution the abbey nave remained in use as the parish church, but the rest of the site was acquired by the Denny family in 1542. The V&A removed the Waltham Abbey panelling from a house in 'Green Yard' in the town in 1899. Probably not original to 'Green Yard' it may once have adorned the house built by Edward Denny on the abbey site around 1599,<sup>5</sup> although was almost certainly made for an older property. Beyond this, despite two carved coats of arms, nothing certain has been established about the identity of the patron, the nationality of the carvers, or the panels' original location. The most frequently cited suggestion is that they were made for an Abbot of Waltham Abbey before its dissolution. Where past investigations have taken a more localised, antiquarian approach, discussing the panelling's origins and heraldry, this essay places its iconography and style into the broader context of early sixteenth-century England.

The Waltham Abbey panelling sits at a junction between the native and Renaissance styles, made when 'romayne' and 'all'antica' forms, already popular in Europe, were being absorbed into the English decorative repertoire. Each panel is approximately 63.4cm × 19.5cm × 1cm. At present the panels

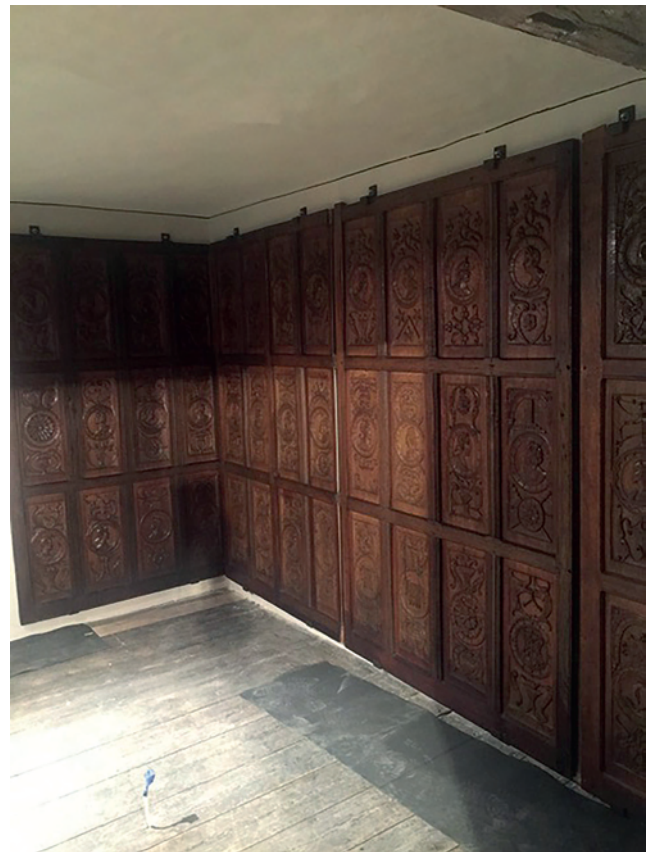


PLATE 1: General view of new display (from 2016) of Waltham Abbey Panelled Room, at Epping Forest District Museum, Essex.

on display at EFDM are framed with scratch-moulded rails and edge-moulded stiles in three tiers, to a height of roughly 2.2m.<sup>6</sup> The panels can be removed from their framing, however, and the current arrangement may not reflect their original presentation. The panels can be divided into two primary groups. Firstly, a set of ten, high-quality, squarer panels, carved in deeper relief and showing a high level of skill in execution (Pls 7–8), all in store. These panels each have a single,

central motif taking up most of the space, either an elaborate vase with some perspectival effects, or a wreath containing a portrait in profile. The second group of 100 narrower panels is of more varied quality. These panels are carved with three motifs; a central medallion and supporting motifs above and below. The medallions contain either a profile portrait or heraldic device—sometimes a coat of arms, sometimes a royal badge—a Tudor rose, portcullis or pomegranate. The supporting motifs are very varied, with ‘antique’ forms including grotesque dolphins, vases, scrolls, and trophies, and others more clearly derived from the native Gothic tradition, such as a green man, ogee arches and an oak branch. The panels are also carved with grotesque faces, bunches of grapes and other motifs of obscure origin.

The style and shape of the panelling suggests a date early in Henry VIII’s reign; the long and narrow proportions of the main group were fashionable before the mid-sixteenth century, when panels became broader and shorter,<sup>7</sup> and the Aragonese pomegranates suggest they were carved between Henry VIII’s marriage to Katherine of Aragon in 1509 and their divorce in 1533. This date range coincides with the period when Renaissance decorative idioms were beginning to appear in England. Little has been written about the early English Renaissance, although recent studies have explored contemporary links with Florence and Northern Europe, and investigations of other medallion-panel schemes have started to bring similar work into mainstream scholarship.<sup>8</sup> The medallion portrait was relatively common in England in this period, but the curious combination of antique medallions with Tudor heraldic devices and Gothic motifs is extremely rare, and testament to the versatility of the carvers in adapting foreign ideas for the English market. This article reassesses the patronage and heraldry debates, and offers a new possibility for the panels’ original location. It explores the potential meanings and sources of the motifs, their relationship to the different styles of carving and the wider cultural context.

## ORIGINS

### Location

The first confirmed reference to the Waltham Abbey panelling is in Edward Littler’s 1863 ‘Plan of Town of Waltham Abbey’. ‘Green Yard’, home to the panels before 1899, is described in the key as ‘House containing carved panels brought from the House which stood in the Abbey Gardens and was built out of the ruins of the Abbey’.<sup>9</sup> The house in the abbey gardens was the Abbey Mansion, owned by Charles Wake Jones in the eighteenth century and pulled down in 1770.<sup>10</sup> Though much altered, this was ostensibly the same property built c. 1599 by Edward Denny, from reclaimed materials on the site acquired in 1542 by his grandfather, Anthony Denny. Though a newspaper account of the demolition from 1770 makes no reference to the panelling, the most probable scenario is that the panels were transferred from Abbey Mansion to Green Yard, although other origins have been suggested, including that they were originally made for Green Yard and never installed elsewhere.<sup>11</sup>

Prior to 1863 there are two known descriptions of wainscoting (panelling) in the vicinity of the town. The first is in the 1540 *Inventory of the Abbey*, where wainscot is included in valuations of several rooms’ contents:<sup>12</sup> wall panelling would have been considered a moveable furnishing and part

of the abbey’s saleable goods. On three occasions the inventory lists ‘a portall of wainscott’, where ‘wainscott’ probably indicates the type of wood used for the door—‘wainscot’ oak, imported from Germany and elsewhere for its strength and straightness—rather than panels lining a room.<sup>13</sup> However, ‘the grete hall’ is described as ‘siled about with wainescott’. Wainscoting is also mentioned in ‘The Abbots utter Parlor’: ‘And the same parlor siled with wainescotte’, and in ‘The Stone Parlor/Item the same siled aboute with/wainescott’, although without further description we cannot be certain that this is the panelling now at EFD. <sup>14</sup>

The second account is in John Farmer’s 1735 history of Waltham Abbey. He describes the ‘sumptuous Hall’ of the Wake Jones’ Abbey Mansion: ‘in Length it contains sixteen Yards and an half, and in Breadth eight Yards and an half; in Height nine Yards one Foot. It is exceeding handsome, by reason of the Wainscoting and extraordinary Painting...’.<sup>15</sup> Rhona Huggins, author of an unpublished study of the panelling, has suggested that the paintings hung above the panelling, with the wainscoting reaching to approximately 7ft (2.13m).<sup>16</sup> Taking the dimensions of the hall from Farmer, and using the present panelling’s 2.2m as a guide height, the total surface area that might have been covered by wainscoting in 1735 is approximately 83m<sup>2</sup>. Compared to the estimated 26m<sup>2</sup> of all 110 surviving panels (assuming that the panels in store roughly match those at Epping Forest in size) it is clear that the Waltham Abbey panelling in its current state would not cover the wall surface of the hall described by Farmer. However, some panels may have been lost since 1735, and it is probable that the medallion panels were originally matched with less elaborate linenfold panels, as for example at Thame Park in Oxfordshire,<sup>17</sup> Tolleshunt D’Arcy Hall in Essex, and formerly at Boughton Malherbe, Kent.<sup>18</sup> In these examples medallion panels sit above, or amongst, linenfold panels, but in S H Grimm’s 1782 drawing of Halnaker in Sussex the decorated panels are concentrated at one end of a room, with the other walls panelled in linenfold.<sup>19</sup> These precedents for combining elaborate carvings with simpler panels that later generations might have discarded—especially if moving to a smaller house, as with Green Yard—suggest that, despite the dimensions, the panels could have decorated the Abbey Mansion’s hall.

### Patronage

If Farmer saw the panelling in the Abbey Mansion, it had probably been installed there over a century earlier, when Edward Denny built the house around 1599. Edward was the grandson of Sir Anthony Denny, privy councillor to Henry VIII and keeper of the abbey property from 1542, obtaining the grant in fee in 1547.<sup>20</sup> According to Thomas Fuller, writing in the seventeenth century, one Thomas Smith recalled ‘serv[ing] Sir Edward Denny (towards the latter end of the reign of Queen Elizabeth, of blessed memory), who lived in the Abbey of Waltham-Crosse, in the County of Essex, which at that time lay in ruinous heaps, and then Sir Edward began slowly, now and then, to make even, and re-edify some of that chaos’.<sup>21</sup> As Rhona Huggins suggests, Anthony Denny must have retained the materials and even some of the abbey buildings when he became keeper of the site, possibly accommodating the King and Queen there when they hunted in Waltham Forest.<sup>22</sup> Certainly the buildings cannot have been fully redeveloped by

the end of the sixteenth century if Smith remembered ‘that chaos’. We can trace a plausible sequence of ownership for the panels; made for an abbot, they could have been left *in situ* when Denny bought the property, then moved to the new Abbey House built by his grandson in 1599, where they were later seen by Farmer, and finally Green Yard.

The most plausible patron for the panels is therefore an abbot of Waltham Abbey. Ecclesiastical ownership of medallion-head panelling was not unusual. At Thame Park in Oxfordshire the Abbot of Thame commissioned a combination of linenfold and medallion panels for the Abbot’s Parlour;<sup>23</sup> and Abbot Rugge ordered the panelling now in Norwich Cathedral vestry, either for his Abbey of St Benet’s before the 1536 dissolution, or afterwards for his episcopal palace when he became bishop.<sup>24</sup> Although largely secular in iconography, the Waltham Abbey panelling may originally have belonged to the abbey. Abbots were worldly men: often entangled in the politics of the court, they were also susceptible to its fashions. In addition, the inclusion of Eucharistic grapes on the panels, and instances of a Eucharistic chalice and a Calvary cross, may suggest an ecclesiastical patron.

### Heraldry

The use of heraldic devices to signify individuals and families had been developing since the mid-twelfth century, originating in the need for identification on the battlefield.<sup>25</sup> Though never an exact science, heraldry acquired hereditary qualities and spread to other spheres of display; motifs and colours could be used to indicate blood ties and allegiances in costume, buildings and moveable possessions, visually representing the owner’s ‘pedigree’.<sup>26</sup> Perhaps galvanised by the Tudor dynasty’s anxiety to demonstrate its royal status, the early sixteenth century witnessed increasing interest in lineage and dynastic standing. As well as demonstrating an owner’s pedigree, heraldry could indicate endorsement or patronage, advertising the owner’s authority and generosity as well as nobility.

Heraldry’s ability to communicate identity without written explanation depended on the viewer recognising the devices; this knowledge has long been lost with regard to the Waltham panelling. Two coats of arms, as yet unidentified, feature on nine panels. They may represent the owner or patron of the panelling, or if made for the abbey, an abbey benefactor. One shows a chevron between three mullets [five-pointed stars] (Pl. 2) and appears four times as a supporter on shield escutcheon, once without escutcheon. On four other panels, another coat of arms occupies the central medallion: also on shield escutcheon, quarter 1,4, a chevron between 3 pierced mullets; 2,3, a lion rampant with a bend to the sinister overall (Pl. 3). Several different owners have been suggested for the arms, but without the tinctures firm identification may never be possible.

In 1910, the antiquarian Reverend H.L.L. Denny suggested the panels were carved for Sir Anthony’s family, the Dennys of Cheshunt, but mistakenly used the coat of another family, the Dennys of Suffolk.<sup>27</sup> As such, he dated the panels to after the mid-sixteenth century, when the Dennys reached Waltham Abbey.<sup>28</sup> Yet the visual evidence contradicts these arguments. The arms of the Cheshunt Dennys don’t match those on the panels as H.L.L. Denny claimed.<sup>29</sup> Moreover, the inclusion of Aragonese pomegranates (Pl. 6) suggests that the panels date from before the 1533 divorce. By the 1550s, when the family came to Waltham, panels had become squarer in shape, and



PLATE 2: Panel with coat of arms, Tudor Rose and full-face grotesque with tassel.



PLATE 3: Panel with ogee arch and grapevine, quartered coat of arms, and grotesque fish with split-diamond scale decoration and tassel.

medallion heads and Christian motifs such as grapes and Eucharistic chalices were unfashionable.<sup>30</sup> Finally, work on the room would have been careful and expensive; even if the craftsman confused the heraldry, it is implausible that the patrons did not demand the mistake's correction.<sup>31</sup> H.L.L. Denny also suggests that the panels could have been made earlier for the family house in Cheshunt and brought to Waltham Abbey later, but this is improbable. Harold Clifford Smith, former Keeper of the Department of Woodwork at the V&A and author of the 1924 book on the panelling, identifies the 'plain Calvary cross (with its arms broken off) rising from a base of three steps' with the Holy Cross of Waltham



PLATE 4: Panel with full-face grotesque with tassel, quartered coat of arms, and scroll decoration.

(Pl. 5), perhaps indicating an origin near Waltham Abbey.<sup>32</sup> The evidence suggests that the Dennys did not commission the panelling, either for the Abbey Mansion or at Cheshunt.

Another possibility is that the panels were made for a previous owner of the nearby house called 'Dallance'. This manor, one mile north-east of Waltham Abbey, was owned by Sir Humphrey Browne in the early sixteenth century. From Browne it passed via Henry VIII to the Denny family, who acquired it with the abbey lands after the dissolution in 1540.<sup>33</sup> Dallance was the local manor before Abbey House was built, and the fact that the Dennys subsequently owned both suggests a means for the panelling to have come from Dallance to Abbey House, and ultimately to Green Yard. Sir Humphrey's arms have little in common with those on the panelling, however,<sup>34</sup> though this origin would explain the possible inclusion of the Waltham Abbey Cross and other religious motifs, both being in the vicinity of a major centre of pilgrimage.



PLATE 5: Panel with Calvary cross on three steps (Waltham Holy Cross?) now missing crossbar, portrait medallion of woman facing left, and achievement of weapons.

To date, the best guess for the heraldry's owner—Abbot Robert Fuller—has been most fully developed by Rhona Huggins, a local historian, in an unpublished study of the Waltham Abbey panelling.<sup>35</sup> She identifies the chevron between three estoiles as representing Walsingham and Waltham, arguing that the arms on the panels represent 'those of a married man quartering his wife's': a heraldic joke, with Fuller's arms 'wedded' to his abbey's. She sees the playful 'jester faces' on the panelling (*e.g.* Pls 2, 5) as a pun on Fuller's name (fool/Fuller), and the fact that they sometimes occur with tassels as a further pun on a fuller's 'teazle'.<sup>36</sup> The puns relating to Fuller's name are debatable; the motifs could simply be generic grotesque carving, without obvious additional significance, and some have spoons or ropes rather than tassels. Additionally, the arms may not represent the correct Waltham, as Thomas Fuller gives different arms for Waltham Abbey, and there is no evidence that Abbot Fuller had arms with a rampant lion and bend sinister.<sup>37</sup> Without a firm identification of the heraldry the question of patronage remains open, but the association with Fuller fits both the tradition that the panels came from the abbey and the *c.* 1520s date. The panels could also have been made for one of Fuller's predecessors: John Shernbroke (abbot 1507–1514) and John Malyn (abbot 1514–1527), about whom little is known.<sup>38</sup> Clifford Smith states that the panelling may have been made 'for a secular house' in the town, or for an abbey building, in which case the arms may be those of an abbey benefactor, and not necessarily one 'in the immediate neighbourhood'.<sup>39</sup> The most plausible solution is that the panels were originally made

for the abbey, and decorated with the arms of an unidentified benefactor.

### STYLE

Nothing is known about the craftsmen who carved the Waltham Abbey panels—their nationality, their number, how they worked or who directed them. Little is known generally about workshop practices behind this kind of object, and a complete lack of documentary evidence in this case means only tentative conclusions may be drawn from visual evidence. The most secure stylistic distinction can be made between two primary groups of panels: the group of ten, high-quality, squarer panels with a single central figure, and a group of 100 narrower panels with central medallions between supporting motifs. In the latter set it is possible loosely to identify further groups of hands of varying quality. Previous scholars have suggested an accomplished Northern European craftsman was working alongside a group of less skilled, perhaps native carvers. The employment of foreign carvers on this sort of work is illustrated by the example of Queen's College, Cambridge; in 1531 Giles Fambeler and Dyrik Harrison were employed to carve medallion head and heraldic panels—craftsmen whose names sound foreign, possibly Flemish.<sup>40</sup> However, the identification of the carvers' hands is complicated by the possibility that different craftsmen carved the portrait medallion and supporters on the same panel.

The first group of ten panels is clearly higher quality, and uses motifs absent from narrower panels. Six have vases with

arabesques and scrolls (Pl. 7), while the other four have profile heads in circular wreaths (Pl. 8). Clifford Smith suggests that these were drawn from Italian or Franco-Italian sources.<sup>41</sup> Although no directly comparable prints have been found, engravings such as the wreathed medallion profile of Julia Pia from North East Italy of c. 1480, or a design for a panel by the Dutch engraver Lucas van Leyden (with antique supporters and helmeted portrait) dated 1527 may represent the kinds of sources on which the designers drew.<sup>42</sup> The panels are carved in deep relief; they are vigorous, confident and use perspectival effects—for example, in Pl. 7 the corner of the vase's square base points towards the viewer, the sides receding to give a three-dimensional impression. This effect is not attempted on any other panel, especially not on the group of 100 narrow panels, where the 'vases' look two-dimensional though carved in relief. The group of ten is closely symmetrical along the vertical axis and simple in composition. Although more elaborate than the narrower panels, the carvings form a single central motif. This is true of the medallion heads in the group as well as the vases; the roundels are embellished with ribbons but these are tied to the wreaths. In contrast, the narrow panels are divided into three distinct sections; a central medallion and upper and lower supporting devices.

The holistic compositions of this group of ten panels, their high-quality execution and assured use of motifs, suggests they are by a different craftsman from the group of 100.<sup>43</sup>



PLATE 6: Two panels. Left panel with Eucharistic chalice with cross cut into base, Tudor rose and grapevine. Right panel with scroll decoration, pomegranate and 'flaming' vase with split diamond decoration.



PLATE 7: Panel from high-quality group of ten, with single motif of perspectival vase.

Clifford Smith argues that the panels were by different, but contemporary, craftsmen,<sup>44</sup> while Rhona Huggins suggests that the ten might be later than the group of 100 (c. 1540–60 and c. 1526–33 respectively).<sup>45</sup> She does not explain the reasons for this dating, but it's possible that the narrow panels were taken from the Abbey and augmented with extra panels when installed in Abbey House. Another scenario, not previously suggested, is that the patron acquired the group of ten ready-made, perhaps from the continent, and commissioned the narrow panels from native carvers to complete a room. This may explain why Renaissance motifs on the group of ten appear in simplified and less accomplished form on the group of 100, but none of the heraldry features on the ten. The argument that the ten panels were by a Northern European or Italian craftsman is largely based on their skilled workmanship, perhaps a misleading assumption,<sup>46</sup> and though the differing levels of familiarity with imported and native devices may suggest artisans of different origins, such motifs could also travel independently, via print sources and other means.

**Hands**

In the group of 100 panels, different handling of recurring motifs may serve to identify different craftsmen. A 'flaming' vase flanked by scrolls appears multiple times: in some instances the vase is decorated with uneven rows of zigzags (Pl. 9) but elsewhere with regular, 'split' diamonds (Pl. 11). Similarly, grotesque fishes may have split-diamond scales (Pl. 3) or scales that resemble round roof shingles (Pl. 10). Although it might be assumed that the craftsman using split diamonds on vases would also use them on fish, and that this might therefore suggest a way to group panels by craftsman, the picture is complicated by a panel where the upper supporter is a fish with rounded scales and the lower supporter is a vase



PLATE 9: Panel with 'flaming' vase with zig-zag decoration, portcullis and antique urn..



PLATE 8: Panel from high-quality group of ten with single motif of portrait medallion.



PLATE 10: Panel with grotesque fish with curved 'roof-shingle' scales, male portrait head with sallet, and oak branch.



PLATE 11: Panel with grotesque fish with round scales, portrait medallion of woman facing left, and 'flaming' vase with split-diamond decoration.

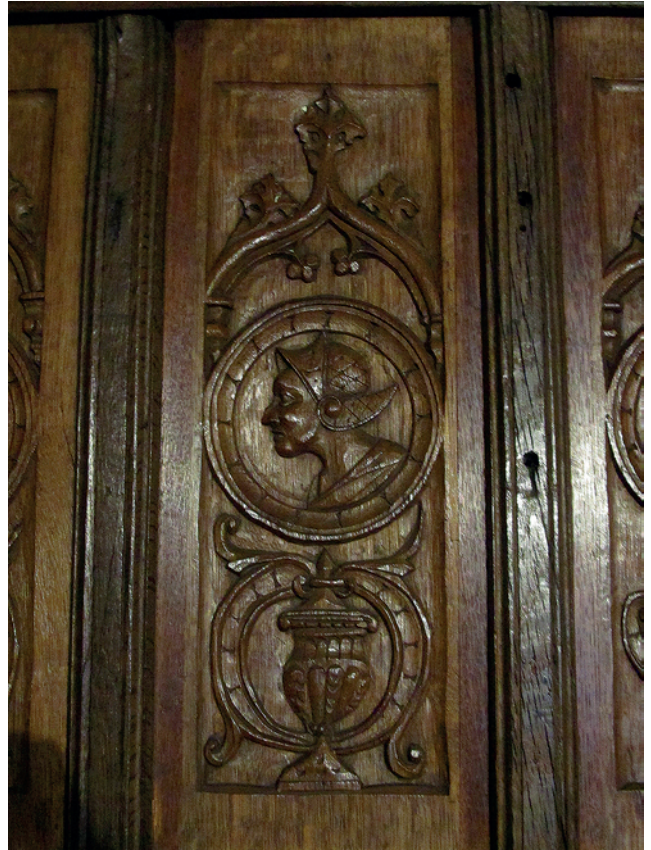


PLATE 12: Panel with ogee arch with 'bobble' decoration, male head facing left wearing sallet, and antique urn.

with split-diamonds (Pl. 11). Rounded fish scales and split-diamond vase decoration are not mutually exclusive.

Another distinction between panels concerns the ogee arches—upper supporters on roughly a quarter of the surviving panels—panels which perhaps formed the top tier in their original setting. The arches usually have pendant vines—bunches of grapes, leaves or groups of three 'bobbles' or berries. On fifteen panels large 'bobbles', leaves or bunches of grapes appear to grow from behind the ogee arch, suspended on two stalks either side of the centre (Pl. 3). However, on eight panels the pendants are generally three small 'bobbles', and actually join the underside of the arch, around triangular hollows (Pl. 12). In this group the crockets above the arch tend to slope inwards, whereas in the former group the crockets are more upright.

In spite of these differences, most of the large group of panels are similar enough in size and treatment to suggest they were made at the same time and place. Although tentative suggestions can be made about the handling of certain forms, there are too few common motifs to estimate the total number of craftsmen. Potential groups can be suggested, although the idea that different craftsmen worked on different parts of the same panel complicates matters. One set of panels (*e.g.* Pl. 13) consistently uses a narrow range of Renaissance vase, scroll and ribbon motifs rarely found on other panels, and never features ogees. More symmetrical than other panels, they often show a greater facility in the carving especially in the portrait roundels. On the other hand, heraldic devices such as coats of arms and royal badges tend to appear on unsymmetrical

panels, alongside a more varied repertoire of supporting motifs. One group of four panels (*e.g.* Pl. 4) is especially similar in terms of handling, and probably by one craftsman; carved in lower relief than other panels, the surfaces are covered in a riot of detail. The humorous motifs fill a large area, and the elaborate roundel borders and textured backgrounds give a busy overall impression.

### Other Examples

No other work by the same craftsmen is known to survive, but carved decoration in what came to be known as the 'antick' ('all'antica') or 'Romayne' (Roman) style experienced a burst of popularity in the first decades of the sixteenth century. Characterised by Renaissance motifs such as vases, scrolls, foliage and profile portraits in medallions, the 'all'antica' style became fashionable at court with high-profile works such as Giovanni da Maiano's terracotta portrait roundels at Hampton Court Palace and Pietro Torrigiano's Tomb for Henry VII at Westminster Abbey. England's relations with Italy, particularly Florence, deepened following Medici Pope Leo X's election in 1513, and foreigners were appointed to high-profile English positions.<sup>47</sup> Through a combination of immigration and trade, up-to-date objects and fashions entered England, for example through the Cavalcanti and Bardi company, who supplied not only the court, but also sold goods over the counter to the middle classes in their *Drapperia* (warehouse) in London.<sup>48</sup>

The 'all'antica' or 'romayne' style was disseminated at many social levels, but also in areas of the country remote from the court and London; a fact which must be due to the

influence of immigrants from Northern European countries, particularly France and the Low Countries, and the burgeoning print trade. The style is found in churches and secular settings, on fixtures and moveable furniture.<sup>49</sup> Medallion heads are carved on font covers at Radbourne in Derbyshire and Pilton, Devon; choir-stalls at Christchurch in Hampshire and the Salkeld Screen at Carlisle Cathedral (a late example of the fashion, c. 1540–1550).<sup>50</sup> The bold simplicity of the medallions at Waltham Abbey is comparable to West Country examples at Great Fulford in Devon and the Sandford Orleigh overmantle in Newton Abbot.<sup>51</sup> Yet many West Country profiles have the heads tilted upwards, as on the East Down chancel screen and Swimbridge Church font surround, both Devon,<sup>52</sup> whereas at Waltham Abbey the figures are relatively upright.

Although 'Romaine' panelling was popular across the country, comparison with other surviving panels shows that the combination of a portrait medallion in the same field as separate, traditional supporters is very rare. The closest 'local' example was at Boughton Malherbe in Kent, removed to America in 1923. Here, 'curved-rib' linenfold panels framed medallion profile panels in low relief; the medallion panels had supporting scrolls akin to the ten high-quality Waltham panels. Other relatively local examples, such as the panelling from Beckingham Hall, Essex, now in the V&A, tend to have medallions carved in deeper relief, or, as at Longstowe Hall in Cambridgeshire, combine portraits with delicate, low-relief arabesques and vases, similar to panels from the archiepiscopal palace at the Chateau de Gaillon, now at St Denis, Paris. If the panels originated in Waltham Abbey, the strong connections with royalty and aristocracy suggest the influence of courtly and ecclesiastical fashions.

### ICONOGRAPHY

Without knowing the craftsmen's nationality, the panelling's iconography is the strongest evidence for its position at a collision point between native and continental influences. The still essentially medieval motifs of the English Gothic, such as ogee arches, combine with continental Renaissance iconography of portrait medallions and classical vases, demonstrating the struggle to adapt increasingly fashionable, foreign designs to English needs. Native craftsmen trained in the Gothic tradition came increasingly into contact with forms imported from abroad, entering the country not only as part of the exchange of goods, but also through the print trade, and via immigrant artisans from countries where, by the early sixteenth century, the Renaissance had taken root.

The foreigners were not universally popular, however, and the uneasy assimilation of imported forms at Waltham is echoed in the sometimes-problematic nature of immigration in the early sixteenth century. In 1517, not long before the panels were carved, the Evil May Day riots in London saw English artificers raiding the houses of immigrant craftsmen, protesting that they could 'scarce get any living' while 'the Duchemen bryng over Iron, Tymber, lether and Weynskot ready wrought, as Nayles, Lockes, Baskettes, Cubbordes, Stooles, Tables, Chestes, girdels, with pointes, saddles and painted clothes so that if it were wrought here, Englishemen might have some worke and lvyngge by it.'<sup>53</sup> By 1545 even the King, whose preference for foreign craftsmen was well-known, had had enough, as William Paget wrote to Lord Cobham: 'My lord, I beseech you send over no more strangers, and move

the rest there to send none, for the King is not content'.<sup>54</sup> Though immigrants nevertheless continued to bring their trades to England and its regions, the country was reluctant to abandon its Gothic past for the Renaissance future. The Waltham combination of novel and native forms can be seen as an attempt to 'naturalise' the new style, assimilating it into the already-existing network of motifs and traditions in which any native craftsman would have been well-versed.

On the 100 narrow panels, a centrally-carved medallion is framed by two supporting devices. The majority of medallions displayed at EFDM have profile portraits in a variety of wreaths: of the eighty-six seen by the present author, twenty-nine men face right, seventeen face left; two women face right and twelve face left. On twenty-six of these panels, the medallion contains a heraldic device rather than a portrait: nine Tudor roses, nine pomegranates, four portcullises and four unidentified coats of arms. The same supporting designs frequently recur, but combinations are rarely repeated. Common motifs include 'fish' grotesques, in pairs or singly with full-frontal, human-like heads; vases with scrolls (Pls 9, 12); ogee arches with leaf or grapevine pendants, and paired grotesque heads in profile. Notable figures featured only once include: a green man (Pl. 15); a Eucharistic chalice (Pl. 6); a palisade fence in front of a vine (Pl. 17) and a cross (now missing its crossbar) on a three-step base, usually identified as the Waltham Holy Cross (Pl. 5).

### Medallion Heads

The medallion profiles have their origins in the coins and medals of the ancient world and Renaissance, prized by Early



PLATE 13: High quality (Italianate?) panel with ribbon decoration, portrait medallion of woman facing left, and foliate vase.





PLATE 14: Panel from right of overmantel, now in store, possibly showing Tudor patron. Reproduced from Clifford Smith, H. 1924.

Modern collectors. Though portrait medallions originated in fifteenth-century Italy, English examples owe a special debt to German medals, which are 'distinctly different from their Italian counterparts,' usually made without inscriptions from stone or wooden models, with attention lavished on the individual's features.<sup>55</sup> Comparison of English medallion wall panels with wooden models for German medals reveals stylistic similarities, but further links can be made with Germanic costume, probably indicating that these forms were transmitted through Northern European prints or craftsmen. Many figures wear helmets with 'sallets' (Pl. 10), helmets pointed at the back to protect the neck in battle, popular in late fifteenth-century Germany but less so in England.<sup>56</sup> Other figures wear vaguely classicising headgear, a reference to the antique origins of the medallion format.

The generic nature of the portraits at Waltham resists Rhona Huggins' suggestion that they represent real individuals, as is the case elsewhere:<sup>57</sup> for example Haddon Hall, where dining room medallions may contain portraits of Sir George Vernon and his wife Margaret Talboys. One exception, however, may be the Waltham Abbey medallion formerly on the right



PLATE 15: Detail of panel with green man (upper supporter).

of the overmantel, now in store, depicting a young man in Tudor clothes, possibly the patron (Pl. 14).<sup>58</sup> The majority of the panels probably represent loosely classical or Christian characters, especially heroes and heroines of classical mythology, akin to the *uomini famosi* and *donne famose* (famous men and women) schemes then-popular across Europe. These groups of virtuous individuals served as moral exempla, deriving from works such as Plutarch's *Mulierum virtutes* and Boccaccio's *Famous Women*.<sup>59</sup> Sue Hedge has suggested that the vestry panelling now at Norwich Cathedral portrays two related themes, the Nine Worthies (famous men) and the Power of Women, but here the presence of labelled shields enables the specific identification of some figures.<sup>60</sup> The lack of identifying attributes at Waltham Abbey makes such identifications impossible, but both schemes demonstrate 'formulaic' and 'repetitious' characters in 'fossilized' costume, suggesting allusions to historical and literary traditions rather than real contemporaries.<sup>61</sup>

### Royal Iconography

Several Tudor badges appear on the panelling. The implications of the Aragonese pomegranates (Pl. 6) for dating have been discussed above, and though the pomegranate is sometimes a generic Christian or fertility motif, its coincidence here with roundels occupied by Tudor badges suggests an allusion to Katherine, Henry VIII's first wife. Other royal symbols include the Beaufort portcullis (Pl. 9)—the badge of Henry VIII's paternal grandmother, Margaret Beaufort—and the Tudor rose (Pls 2, 6). The rose, carved sometimes with two rings of petals and sometimes with three, represents the end of the Wars of the Roses and Henry VII's marriage to Elizabeth of York, Henry VIII's parents, uniting the Lancastrian red rose and the white rose of York. The inclusion of Tudor heraldic badges demonstrates the contemporary interest in dynastic affairs, but the presence of royal symbols need not imply royal patronage, instead representing the owner's loyalty to the crown and the still-fledgling Tudor dynasty. The inclusion might, however, suggest a patron of some standing; if made for Waltham Abbey, they may have been seen by the King himself, who probably stayed there when visiting the royal hunting forest nearby.<sup>62</sup>

**Supporters**

The upper and lower ‘supporters’ on each panel are a curious mixture of Renaissance and Gothic motifs. Renaissance dolphins appear alongside grotesque fish; simplified ‘*all’antica*’ vases, scrolls and trophies of arms (Pl. 5) mingle with ogee arches, vines, an oak branch (Pl. 10) and a green man (Pl. 15). The supporters, especially the grotesques, are humorous and enthusiastically carved, with little concern for symmetry. The naturalisation of foreign motifs and their inclusion alongside traditional English forms demonstrates the artisans’ versatility and playfulness, applying Renaissance decoration to indigenous narrow-panel wainscoting, giving the imported forms a peculiarly English flavour.

**Religious Iconography**

The presence of religious iconography on the panelling may corroborate an origin in the abbey, or if for a secular house, the close proximity of a major pilgrimage centre.<sup>63</sup> Alongside numerous grapes and grapevines (Pls 3, 16), there are three explicitly religious motifs; a chalice with a cross carved into its base (Pl. 6), a Calvary cross on three steps, cross-bar now missing (Pl. 5), and a chalice on a shield between two eagles. One grotesque supporter has a tiny cross above its head. The grapes and chalices suggest Eucharistic connotations, but in

one instance a vine grows from behind a palisade fence (Pl. 17). A similar motif was noted at Boughton Malherbe (1520s or later) by Henry Avray Tipping (Pl. 19), where he associated it with a vineyard.<sup>64</sup> The fact that such an unusual motif appears both in Kent and Essex suggests a common design source for both works, or perhaps that the carvers at one had knowledge of the other.

The cross motif has been associated with the Waltham Holy Cross. Discovered in Montacute, Somerset in the eleventh century, legend claims it was miraculously brought to Essex, where then-lord Tovi built a collegiate church of secular canons. After Tovi’s death Edward the Confessor granted it to Harold Godwinson, who increased the church’s endowments and was miraculously cured of paralysis by the Holy Cross.<sup>65</sup> The identification of the carving as the Waltham Holy Cross derives from the Great Seal of the abbey, the obverse of which shows a cross on a mound supported by two angels (a wax impression is displayed in an upstairs gallery at EFDM).<sup>66</sup> The absence of angels on the Waltham Abbey panelling may suggest that the Holy Cross is not intended; however, in ‘The Seales of the Armes of All the Mitred Abbeyes in England’ in Fuller’s *History of the Church of England*, 1665, the image of the Holy Cross is reproduced slightly differently, still with two angels, but smaller and on a base of several steps.<sup>67</sup> A similar version, presumably derived from Fuller’s, appears in Farmer’s 1735 *History of Waltham Abbey*, this time on three steps, as in the carving.<sup>68</sup> If the panel represents the Holy Cross, the



PLATE 16: Detail of panel with grape vine (lower supporter).

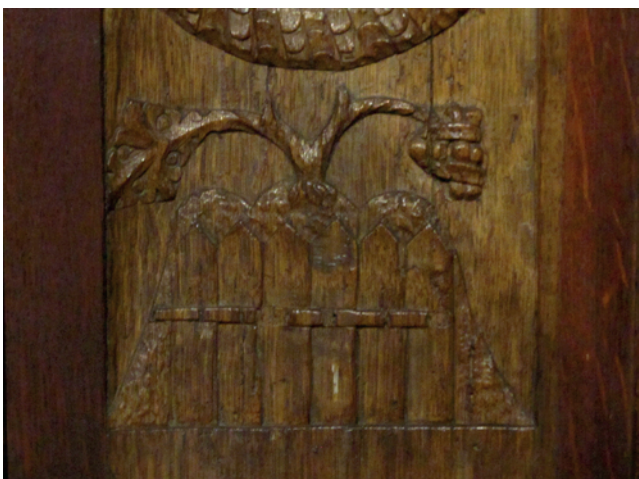


PLATE 17: Detail of panel showing grapevine growing behind palisade fence.

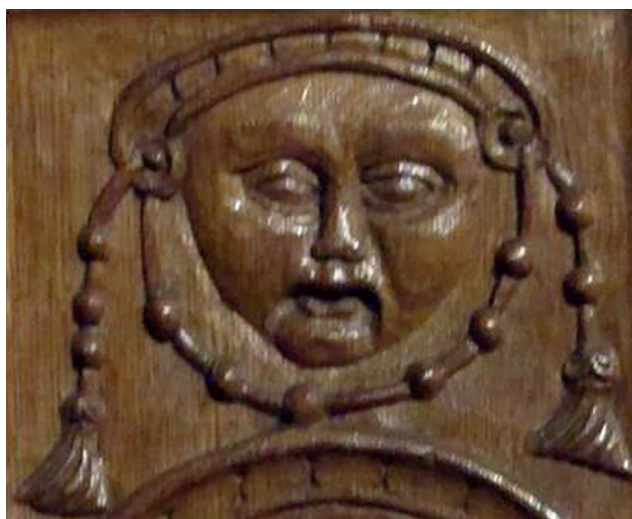


PLATE 18: Detail of panel with full-face grotesque, possibly caricature of Henry VIII (upper supporter).



PLATE 19: Detail of curved rib linenfold panel with grapevine and palisade fence motif, from Boughton Malherbe. Reproduced from Avray-Tipping, H. 1924, 221.

panelling must have originated in the town of Waltham Holy Cross, either in Waltham Abbey itself or a nearby house.

## CONCLUSION

This essay has reassessed the Waltham Abbey panelling, positioning it for the first time in its social, historical and cultural contexts. Created probably in the 1520s, when Renaissance designs were beginning to be appreciated in England, its iconography and style demonstrate the creative marriage of foreign and native forms. The eclectic mixture of medievalising ogee arches, English royal heraldry and continental profile medallions is mirrored in the varied approaches to, and quality of, carving. The plurality of motifs and skill levels suggests accomplished, perhaps northern European, craftsmen working on the group of narrow panels, alongside less-skilled carvers more familiar with native forms, while another highly-skilled artisan, possibly foreign, may have been responsible for the group of ten squarer panels. This essay has suggested that the group of ten may have been acquired or imported ready-made by the patron, and augmented with additional panels made locally, explaining the Tudor and other native motifs on the larger group of 100 panels.

The question of the panelling's origins remains open. The panels were probably not made for Sir Anthony Denny. The arms are not his, and the Dennys only arrived in Waltham Abbey from the 1540s, after the 1533 divorce, meaning their patronage is ruled out by the religious motifs, pomegranates and narrow panel dimensions. The most plausible suggestion is that it was made for an Abbot of Waltham Abbey, supported by the existence of similar panelling belonging to the Abbots of Thame and Norwich. In this case, the heraldry on the panels need not refer to the abbot himself, but could belong to a donor, who—given Waltham Abbey's prestige—may not have been local. It also remains possible that the panels were made for Sir Humphrey Browne at Dallance, or for another nearby house so far unidentified.

Waltham Abbey Panelled Room was created during the heyday of early Anglo-Italian Renaissance ornament. Recent research has shown that the subsequent Reformation did not end England's contact with the continent. Although the latter part of the century saw a reassertion of the native chivalric and 'Neo-Medieval' decoration, represented here in the supporting devices, nevertheless European styles and craftsmen continued to influence England's art and architecture throughout the sixteenth century. Yet the year 1533, when Henry VIII divorced Katherine of Aragon, did mark the beginning of the end for this particular version of the early Italian Renaissance in England. When 'all'antica' or 'Romayne' work appeared later in the century it was more in the way of Netherlandish strapwork and grotesques than Renaissance profile medallions. If tradition is to be believed and the first discussions of divorce occurred in the Romeland of Waltham Abbey, then the Panelled Room may have served as a backdrop for events which altered the English religious, political, and artistic landscapes forever.

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## ENDNOTES

- 1 St John's College, Cambridge.
- 2 Before 2016, ninety-one of the panels were on display at Epping Forest District Museum. The author's photographs of all these panels are online at <<https://doi.org/10.17863/CAM.9113>>.
- 3 Clifford Smith 1924; since then, Huggins, R. 1984, unpublished study in Waltham Abbey Panelled Room object file, FTF 2011–1899, V&A; Huggins, P.J. 2013, A7–9.
- 4 Addison 1945, 10–11; Green 1982, 24–5.
- 5 The house in Green Yard burnt down shortly after the panelling was removed, making it hard to draw definite conclusions about its age and status. Waltham Abbey Panelled Room, object file, FTF 2011–1899, V&A.
- 6 Waltham Abbey Panelled Room, object file, FTF 2011–1899, V&A.
- 7 Chinnery 1986, 421.
- 8 See *e.g.* Sicca and Waldman (eds) 2012; Riall 2008; Hedge 2012; Barnes 2013.
- 9 Littler 1863, *Essex Archaeol. Trans.*, 2, Plate III, facing 49.
- 10 Cutting from unknown newspaper of 10 April 1770 reads: 'Yesterday the Workmen began to pull down that antient [sic] Edifice called Waltham-Abbey...', referring to Abbey House, as the Abbey itself was long gone. WAHS, File FF11; I am grateful to Mary Salton for sending me a copy.
- 11 Biddell, G. 1920, unpublished study in Waltham Abbey Panelled Room object file, FTF 2011–1899, V&A.
- 12 TNA E 117/11/24, fol 13–14.
- 13 As, for example, 1522: 'A brode cheste of wayneskott.' in Tymms 1850, quoted in 'Wainscot, n.' Meaning 1a, OED Online. The origins of the word 'wainscot' are unclear; possibly a corruption from Dutch *wagenschot*, it may relate to a wagon shaft, implying the wood's strength and straightness. It might also relate to the Flemish or Dutch, *wandschot*, 'wand' meaning wall. Chinnery 1986, 155; 'Wainscot, n.', Etymology, OED Online: Available: <<http://www.oed.com/view/Entry/225115?rskey=6R93Hm&result=1#eid>> (accessed 23 Dec 2013).
- 14 TNA E 117/11/24, fol. 13r.
- 15 Farmer 1735, 160.
- 16 Huggins, R. 1984, unpublished.
- 17 Illustrated in Avray-Tipping 1924, 256–257.
- 18 Avray-Tipping 1924, 340–350; xlvi–xlix; 217–223.
- 19 Jourdain 1924, fig. 3 and p.40.
- 20 Page and Round (eds) 1907. Anthony died in 1549, in 1552 his widow Joan Campernowne bought the abbey buildings; their son Henry inherited the estate in 1553 and died 1574, when it passed to his son Edward; Clifford Smith 1924, 8–9.
- 21 Fuller, in Nichols 1828, 104–105 n. 3.
- 22 Huggins, R. 1984, unpublished.

- 23 *Country Life*, 17 July 1909, 'Thame Park, Oxfordshire', 26/654, 90–8.
- 24 Hedge 2012, 320–321.
- 25 Coss and Keen (eds) 2008, 8.
- 26 *Ibid.*, 9, 83–104.
- 27 Given as 'Dennys, 1 and 4, Argent, a chevron sable between three mullets gules; 2 and 3, Argent, a lion rampant azure, crowned or' in *A Late Tudor Book of Arms*, Harleian MS 6163; Cooke and Foster, 1904; Denny 1910, 245–6. Sir Antony's arms were gules a saltire argent between twelve crosses formy or; Clifford Smith 1924, 17–18.
- 28 Denny 1910, 245–6.
- 29 The lion at Waltham is not 'crowned', and no sinister bend is mentioned—a prominent feature of the carving
- 30 Chinnery 1986, 421.
- 31 Biddell, 1920, unpublished. Huggins, P.J. 2013, suggests a link with an illegitimate son of Sir Anthony Denny in Suffolk, A7–8; however, even if Denny's illegitimate son were associated with the Suffolk Denny arms, it seems unlikely that Sir Anthony Denny, a prominent courtier with his own arms, would use his illegitimate son's on panelling.
- 32 Clifford Smith 1924, 18.
- 33 VCH 1966, 151–162: available: <<http://www.british-history.ac.uk/report.aspx?compid=42718>> (accessed 26 Dec 2013) Presumably Sir Humphrey Browne of Terling, Essex, b. 1480, d. 1562, who married Anne Vere, 1507, and Anne Hussey, 1530 <<http://freepages.genealogy.rootsweb.ancestry.com/~hwbradley/aqwg2936.htm#77879>> (accessed 26 Dec 2013).
- 34 In stained glass in the hall of Middle Temple, London, the blazon is quarterly: 1, 4 Gules, a chevron between three lions' paws erased argent all within a bordure of the last, a crescent for cadency; 2, 3 counter-quartered Charleton and Frances; Baker, pers. Comm.
- 35 Huggins, R. 1984, unpublished study in Waltham Abbey Panelled Room object file, FTF 2011–1899, V&A. Other suggestions have included that the panels were made for a John Broughton at Green Yard (Biddell 1920, unpublished) and a family called Blackett (Cescinsky and Gribble 1922, 256–263), but there is no evidence whatsoever that these people were connected with the abbey or the town.
- 36 Huggins, R. 1984, unpublished.
- 37 A Calvary cross on a mound held by two angels (derived from the Abbey's Great Seal) and on a cross engrailed, five crosses crosslet fitchy, Fuller 1655; *cf.* Dorling 1936, 114–132.
- 38 Page and Round (eds) 1907, n. 122–5.
- 39 Clifford Smith 1924.
- 40 Jourdain 1924, 22; Harrison also carved the stalls at Christ's College in 1510; Lee 2005, 193.
- 41 Clifford Smith 1924, 14.
- 42 Hind 1938–48, E.III.48, pl 436, British Museum Object No. 1845,0825.384; Jourdain 1924, fig 17, pl 27, British Museum Object No. 1845,0809.1000. For use of prints as design sources in general, see Wells-Cole, 1997.
- 43 Clifford Smith 1924, 14–15.
- 44 *Ibid.*
- 45 Huggins, R. 1984, unpublished.
- 46 Clifford Smith 1924, 14–15.
- 47 *E.g.* Cardinal Giulio de' Medici became Bishop of Worcester in 1521–22. Gunn 2012, 24.
- 48 Sicca and Waldman 2012, 10.
- 49 See eg Jourdain 1924, fig. 276; pl. 201, fig. 271, pl. 198; fig. 269, pl. 197.
- 50 Barnes 2013.
- 51 Reference from Nicholas Riall, pers. comm.
- 52 *Ibid.*
- 53 Hall 1904, 156, quoted in Jourdain 1924, 21.
- 54 Carden, R. W. 1912, 203.
- 55 S K Scher (ed.) 1994, 24. *E.g.* V&A Museum No. 180–1867.
- 56 Hedge 2012, 321; Kelly and Schwabe 2002, 70–71
- 57 Huggins, R. 1984, unpublished.
- 58 Clifford Smith 1924, 16.
- 59 Franklin 2006, esp. 13–21.
- 60 Hedge 2012, 326–7.
- 61 Hedge 2012, 321–323.
- 62 Sears 2000, 9; one room in the inventory is called 'The kinges chamber', TNA E 117/11/24, fol 14r.
- 63 Clifford Smith 1924, 22.
- 64 Avray-Tipping 1924, 220.
- 65 Page and Round (eds) 1907, 166; Fuller 1655, 6; Pevsner 1976, 400.
- 66 See Page and Round 1907, Pl. III.
- 67 Fuller 1655; the arms of Waltham Abbey are also given as: on a cross engrailed, five crosses crosslet fitchy. *Cf.* Dorling 1936.
- 68 Farmer 1735 pl. facing p. 146.

#### ABBREVIATIONS

- BM British Museum  
 EFDM Epping Forest District Museum  
 FTF Object Files, Furniture Textiles and Fashion Archive, V&A  
 OED Oxford English Dictionary  
 TNA The National Archives  
 V&A Victoria and Albert Museum  
 VCH Victoria County History  
 WAHS Waltham Abbey Historical Society

#### BIBLIOGRAPHY

- Addison, W. 1945, *Epping Forest: Its Literary and Historical Associations* (London)
- Avray-Tipping, H. 1924, *English Homes, Period II, Vol i: Early Tudor* (London)
- Barnes, June C.F. 2013, 'The Salkeld Screen, Carlisle Cathedral: Understanding the Iconography', *Trans. Cumberland Westmorland Antiq. Archaeol. Soc.*, Ser. 3, 13, 151–169
- Biddell, G. 1920, *Unpubl. study*, FTF 2011–1899, V&A (London)
- Carden, R. W. 1912, 'The Italian Artists in England during the Sixteenth Century', *Proc. Soc. Antiq.* 24, 171–205
- Cescinsky, H. and Gribble, E.R. 1922, *Early English Furniture and Woodwork* (London)
- Chinnery, V. 1986, *Oak Furniture: The British Tradition* (2nd edn., Woodbridge)
- Clifford Smith, H. 1924, *Victoria and Albert Museum, Department of Woodwork, The Panelled Rooms: IV The Waltham Abbey Room* (London)
- Cooke, R. and Foster, J. 1904, *Two Tudor Books of Arms: Harleian MSS Nos 2169 and 6163* (London)
- Country Life*, 17 July 1909, 'Thame Park, Oxfordshire', 26/654, 90–8
- Coss, P. and Keen, M. (eds) 2008, *Heraldry, Pageantry and Social Display in Medieval England* (Woodbridge)

- Denny, H.L.L. 1910, 'Waltham Abbey Carved Panels: Denny', *Notes and Queries*, Ser. 9, Volume 1, 245–6
- Dorling, E.E. 1936, 'Kenwood', *Survey of London, Vol 17: The parish of St Pancras part 1: The village of Highgate*. Available: <<http://www.british-history.ac.uk/report.aspx?compid=65024>> (accessed 7 August 2017)
- Farmer, J. 1735, *The history of the ancient town, and once famous abbey, of Waltham, in the country of Essex...* (London)
- Franklin, M. 2006, *Boccaccio's Heroines: Power and Virtue in Renaissance Society*, (Aldershot)
- Fuller, T. 1655, *The church-history of Britain: from the Birth of Jesus Christ, until the Year M DC XLVIII*, with 'The History of the University of Cambridge' and 'The history of Waltham-Abby' (London)
- Green, G. 1982, *Epping Forest through the Ages* (Woodford Bridge)
- Gunn, S. 2012, 'Anglo-Florentine Contacts in the Age of Henry VIII: Political and Social Contexts', in Sicca, C.M. and Waldman, L.A. (eds), *The Anglo-Florentine Renaissance: Art for the Early Tudors* (London) 19–47
- Hall, E. 1904, *The triumphant reign of King Henry the VIII*, vol i, Whibley, C. (ed.) (London)
- Hedge, S. 2012, 'Virtue and Vice in the Vestry: Sixteenth-Century Wall panelling in Norwich Cathedral', *Norfolk Archaeol.* 46, 311–30
- Hind, A.M. 1938–48, *Early Italian Engraving*, Vol IV (London)
- Huggins, R., 1984, *Unpubl. Study*, FTF 2011–1899, V&A (London)
- Huggins, P.J. 2013, 'Appendix: Local Problems Which Are New To Us', in Hunt R. and WAHS, *Abbey House, Waltham Abbey* (Waltham Abbey), A7–9
- Jourdain, M. 1924, *English Decoration and Furniture of the Early Renaissance, 1500–1650* (London)
- Kelly, F. M. and Schwabe, R. 2002, *A Short History of Costume and Armour* (Dover)
- Lee, J. S. 2005, *Cambridge and its Economic Region 1450–1560* (Hatfield)
- Littler, E. 1863, 'Notes upon some plans and drawings illustrative of the antiquities of the Abbey and Town of Waltham Abbey', *Essex Archaeol. Trans.*, Old Ser., 2, 41–55. Available: <[http://books.google.co.uk/books?id=WqQWAQAIAAJ&vq=littler&source=gbs\\_navlinks\\_s](http://books.google.co.uk/books?id=WqQWAQAIAAJ&vq=littler&source=gbs_navlinks_s)> (accessed 7 August 2017)
- Nichols, J. 1828, *The Progresses, Processions and Magnificent Festivities of James I...*, volume 1 (London)
- Page, W. and Round, J. H. (eds) 1907, 'Houses of Austin canons: Abbey of Waltham Holy Cross', *VCH Essex, II*, 166–172. Available: <<http://www.british-history.ac.uk/report.aspx?compid=39852>> (accessed 7 August 2017)
- Pevsner, N. 1976, *The Buildings of Essex*, revised by Radcliffe, E., (2nd edn., Harmondsworth)
- Riall, N. 2008, 'The Diffusion of Early Franco-Italian *All'Antica* Ornament: The Renaissance Frieze in the Chapel of the Hospital of St Cross, Winchester, and the Gaillon Stalls, now at St Denis, Paris', *Antiq. J.* 88, 258–307
- Scher, S.K. (ed.) 1994, *The Currency of Fame: Portrait Medals of the Renaissance*, exhibition catalogue (New York)
- 'Sir Humphrey BROWNE Knight'. Available: <<http://freepages.genealogy.rootsweb.ancestry.com/~hwbradley/aqwg2936.htm#77879>> (accessed 7 August 2017)
- Sears, R. and B. 2000, *Waltham Abbey Chronology* (Waltham Abbey)
- Sicca C.M. and Waldman, L.A. (eds) 2012, *The Anglo-Florentine Renaissance: Art for the Early Tudors* (London)
- Tymms, S. 1850, *Wills & Inventories Bury St. Edmunds, The Camden Society* (London)
- VCH Essex 1966, *Victoria County History of Essex* 5, 151–162: Available <<http://www.british-history.ac.uk/report.aspx?compid=42718>> (accessed 7 August 2017)
- Wells-Cole, A. 1997, *Art and Decoration in Elizabethan and Jacobean England: The Influence of Continental Prints, 1558–1625* (London)



# Nathaniel Salmon (1675–1742), historian of Hertfordshire, Surrey and Essex

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*Nathaniel Salmon's History of Essex, published in parts between 1740 and 1741, was unfinished on his death in 1742. Within a quarter of a century this work had been eclipsed by Philip Morant's completed county history, and Salmon has been largely overlooked since. This article examines what is known about his life and compares his Essex volume with the two other county histories that he did complete.*

## INTRODUCTION

Nathaniel Salmon was born into a family of writers on 22 March 1675. His father Thomas (1648–1706), rector of Meppershall, Bedfordshire, was a distinguished music theorist and the author of five works on the subject, as well as an account of the Order of the Garter. Nathaniel's younger brother, Thomas (1679–1767), wrote extensively on ancient and modern history, and compiled geographical gazetteers, parts of which were re-published in translation in Holland, Germany and Italy, as well as in illustrated English editions.<sup>1</sup>

Salmon himself, possibly educated at Hitchin School, was admitted to Corpus Christi College, Cambridge on 11 June 1690 and graduated LL.B. (Bachelor of Law) in 1695. He was ordained four years later at Lincoln and obtained a curacy at Cottered before moving to Westmill, both Hertfordshire parishes. Though he had taken the statutory oath of allegiance to William III, on Queen Anne's succession in 1702 his conscience prevented him from doing so again, perhaps due to the additional obligation to abjure James II's son, 'the pretended prince of Wales'.<sup>2</sup>

## HIS MEDICAL PRACTICE

As a result, Salmon was unable to accept a living in Suffolk (said to have been worth a substantial £140 per annum) and was obliged to take up a new career as a dispenser of drugs and herbal specifics, initially at St Ives, later at Bishop's Stortford.<sup>3</sup> It was not till 1710 that he was admitted as an extra-licentiate of the Royal College of Physicians. This would have required a year's study at university, another year working in a London hospital, attendance at lectures on anatomy and the practice of physic, and, finally, successfully sitting the college exam. With this qualification he was allowed to practice as a doctor, though only outside London.<sup>4</sup> Gerish, from the evidence of letters from Salmon, concluded that he was in Bishop's Stortford between 1725 and 1729, and certainly the dedication in his *History of Hertfordshire* was dated 1 May 1728 from that town.<sup>5</sup> By 1732, when Salmon was corresponding with a Staffordshire antiquary, he requested that replies should be sent to Chelmsford where, perhaps, he was then residing.<sup>6</sup> By 1736 he was living in Johnson's Court, just off Fleet Street in London, where he died six years later.

Little is known about Salmon's practice as a physician though, in or before 1720, he sent an undated letter to Sir Hans Sloane about one of his patients, the Rev. John Thayne, rector of Great Easton, whom he had been treating unsuccessfully for five months for 'ardor urinae'.<sup>7</sup> His interest in medical matters is evident in his county histories. In the *Antiquities of Surrey*, for example, he included an account of the methods of

controlling the spread of syphilis in the brothels of Southwark, and described the attributes of various medicinal springs, and the treatment of tuberculosis by ingestion of snails.<sup>8</sup> Later in life, he added M.D. after his name but it is not known if or where he obtained this qualification. Medical practice was not always profitable in the provinces and Salmon's professional work perhaps also suffered from neglect during his travels over much of England in search of Roman antiquities. However, apart from *A Life of Henry Compton, Bishop of London*, written anonymously in 1713 and sometimes attributed to Salmon, it was not until 1726 that he began to publish historical works, so he may have managed to earn a tolerable living as a physician up to that point.

## HIS ROMAN STUDIES

Salmon's two short accounts of Roman Britain (both of sixty-four pages) were the product of his extensive travels and personal observations, and were both printed in 1726 (*Roman Stations in Britain according to the Imperial Itinerary* and *A Survey of the Roman Antiquities in some of the Midland Counties of England*). Both were incorporated into his next work, *A New Survey of England: wherein the Defects of Camden are supplied*, issued in eleven parts between 1728 and 1730. This was reprinted in 1731 as two volumes, totalling 872 pages. Apart from a discourse on forest law, the chapter on Essex was dominated by his attempts, from observations and etymological deductions, to identify the Roman roads and stations listed in the Antonine Itinerary. His conclusions were widely discredited by his contemporaries and, a year later, *A New Survey* was eclipsed by John Horsley's *Britannia Romana* which was to remain the standard work on Roman Britain for the rest of the eighteenth century.<sup>9</sup>

It is not known how he became interested in Roman Britain, but he lived in a period when a new scholarly approach to the subject was developing, stimulated by the work of William Stukeley and Roger Gale. It is evident from *A New Survey* that Salmon had studied a variety of sources, including the unpublished notes of Robert Talbot (?1505–1558), a pioneer in the identification of Roman sites, and William Baxter's *Glossarium Antiquitatum Britannicarum* of 1719. Salmon's books show that he had a keenly observant eye and an enthusiasm for field work. His interest in topography may have developed from his Roman studies and was probably also assisted by his correspondence with like-minded antiquaries. The few letters that survive show that he wrote to Browne Willis about material for his Hertfordshire volume, to Roger Gale about Roman matters, and to Richard Wilkes about a proposed history of Staffordshire.<sup>10</sup> Other correspondents

included Richard Rawlinson (antiquary and benefactor of the Bodleian Library), Zachary Grey (divine and historian), Francis Wise (antiquary and Anglo-Saxonist) and Beaupré Bell (an authority on coins). Rawlinson in particular seems to have been a good friend from whom he could request financial and other favours, as well as obtaining his support as a subscriber to both his Hertfordshire and Essex histories.<sup>11</sup>

Apart from his Roman and topographical work, he wrote on a more contentious historical subject. His *Lives of the English Bishops from the Restauration to the Revolution* was published anonymously, a necessary precaution, perhaps, for a non-juror with an ideological commitment to the Stuart line of monarchs, and a hatred for their episcopal detractors. The sub-heading on the title page sets the flavour of the work; 'Design'd to vindicate them from the *Aspersions* of the *Bishops* BURNET, KENNET, and others; from the *Dreams* of RAPIN, and the *Vile History* of the STUARTS'.<sup>12</sup> His ire was particularly reserved for Gilbert Burnet and White Kennet, whom he believed were the arch apologists for those who had, in his view, betrayed the Stuart monarchy in 1649 and 1688. This work was published in five parts, each costing one shilling, between 1731 and 1733.

Another anonymous work, *A Critical Review of the State Trials* published in 1735, has sometimes been attributed to him.<sup>13</sup> However, it is now generally accepted that this was written by his brother, Thomas.

### HIS COUNTY HISTORIES

Salmon's enthusiasm for Britain's Roman history is evident in his county histories. The first of these, *The History of Hertfordshire describing the County and its Ancient Monuments, particularly the Roman* was published in sixteen parts, each of twenty-four pages costing a shilling apiece. This formed, on its completion in 1728, a folio volume of nearly 370 pages. Over the years this work has received a mixed reception. Browne Willis noted that 'it was a thing extracted and epitomised, but very poorly and injudiciously' to which Thomas Hearne retorted acidly 'I think it better done than Mr Willis's own performances'. Hearne, however, noted that the lack of an index was 'unpardonable, and that for it he has suffered much in his reputation'. Richard Gough in his *Anecdotes* (1768) was non-committal. Robert Clutterbuck, an early nineteenth-century Hertfordshire historian, railed against 'the mis-spent time and whims of Salmon'. In his view, the study of Roman antiquity had been 'disfigured and disgraced by (his) reveries'. Gerish commented that Salmon 'saw traces of Imperial Rome in the majority of earthworks; the rest he ascribed to the Danes'. Lionel Munby in the twentieth century described him as 'an acute observer of economic, especially agrarian, conditions; he wrote vividly'.<sup>14</sup> Another more generous assessment came from Hine, who wrote:

'... it is an unpardonable crime to print a history without an index nominum (hanging is too easy, the felon should be drawn and quartered) yet should no lover of Hertfordshire on that account neglect this book. Salmon has a tender regard for the groundling people—those who have no memorial. He has a pleasant curiosity on fish and fishing and he loves to sit and moralise in the shade of what he oddly calls those glorious vegetables, the oaks and elms and walnut trees of Hertfordshire'.<sup>15</sup>

Salmon's *Hertfordshire* was published only a quarter century after Henry Chauncy's densely detailed county history.

He used unpublished material which had been collected by Chauncy, as well as adding additional information from his wider reading, and new material which he had gathered on his travels round the county in search of Roman remains. Though not free of errors or omissions, it benefits greatly from the author's observant eye and ear. Amongst much else, Salmon described stained glass, surviving church rood lofts, a rood effigy converted into the parish clerk's desk, a bronze font melted down by Parliamentary soldiers, a parochial library, a prodigious walnut tree, and a local giant. This last account he treated with commendable scepticism. He also revealed his sense of humour in a note about an encounter with a parish clerk. While copying a monumental inscription, he was asked 'with a great deal of Concern' if there was 'any Tax upon dead Folks coming up?'<sup>16</sup> Unlike Chauncy who had been studiously unbiased, Salmon made no attempt to conceal his religious and political prejudices about the Stuarts, and those whom he considered had scurrilously sabotaged their rightful succession. These passages, together with his own first-hand observations, make his *Hertfordshire* a much livelier account than most contemporary county histories. As Hine noted, the book repays careful reading, even if its gazetteer of parishes is a very inadequate substitute for a proper index.

His next county study, *Antiquities of Surrey* of 1736, comes as something of a disappointment. Though it adopted the familiar pattern of a chorographic introduction followed by a parish by parish account, many of the entries are extremely sparse and rely heavily on printed sources, in particular John Aubrey's history of the county which had been published in five octavo volumes by his friend Richard Rawlinson less than two decades earlier. Salmon's account, in contrast, ran to a single octavo volume of 204 pages. His preface hinted at economies in the production of the book, as he justified the lack of a county map on the grounds that most readers would already own a copy of John Senex's recent survey. Though scanty, his text is enlivened in places by the personal observations, anecdotes and digressions which characterised his *Hertfordshire* volume. Examples include a newly built vinegar factory in Southwark, a ditched camp at Wimbledon, a warning against the beer at Balham made from the local purging waters, surviving medieval choir stalls at Effingham and a 60-acre pond in Nutgate famous for its fish. It is evident that he had himself sampled the medicinal waters from Megs Well at Dorking, though he expressed scepticism about their therapeutic value. His medical interest was also reflected in the detailed list of the wards at Guy's Hospital.<sup>17</sup> His descriptions of tumuli and encampments confirm that he had visited some of them himself.<sup>18</sup> Though by this date it was normal practice for county histories to be referenced, neither *Hertfordshire* nor *Surrey* have marginal or foot notes, though some printed and manuscript sources are mentioned within the text. In common with his other county histories, Salmon speculated, sometimes at length, about the sites of Roman towns, and the route of roads listed in the Antonine Itinerary. *Surrey* was only provided with a basic place-name index.

In 1739 Salmon purchased from the Essex clergyman Nicholas Tindal, for the sum of £60, the manuscripts of the unpublished Essex historians, Thomas Jekyll, William Holman and possibly John Ouseley and by the following year he had started to issue his folio *History of Essex* (Pl. 1).<sup>19</sup> Each part consisted of twenty-four pages and cost

THE  
HISTORY  
AND  
ANTIQUITIES

OF  
ESSEX.

COLLECTIONS of *Thomas Jekyll* of *Bocking* Esquire,  
out of PATENTS, CHARTERS, INQUISITIONS POST MORTEM,

AND

From the PAPERS of *Mr. Ouseley* of *Springfield*,  
and *Mr. Holman* of *Halstead*.

By *N. SALMON*.

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L O N D O N,

Printed by *W. Bowyer*,

And Sold by *J. COOKE*, Bookbinder, next to the *Red Hart*, *Fetter-lane*.

MDCCXL.



one shilling. Salmon drew on other sources too, including Richard Symonds's collections, Norden's MS chorography of Essex and the writings of Richard Andrews of Colne. But it was, as Richard Gough noted, 'his last shift to live' and he died in poverty in April 1742 having only completed some 228 parishes in 460 pages.<sup>20</sup> His unavoidable failure to finish the work, his incorrect placing of *Caesaromagus*, *Canonium* and *Camulodunum* in Hertfordshire and Cambridgeshire (as well as other errors) and the accusation that he had failed to make best use of the Jekyll and Holman MSS were held against him by contemporary critics. His work was soon to be eclipsed by Philip Morant's completed and much more comprehensive *History of Essex*. Nevertheless, Richard Gough, who had a poor opinion of Morant, wished that Salmon had lived to finish his work, and that his 'republisher' (a rather condescending reference to Morant) had not made 'as good use of such valuable material as he (*i.e.* Salmon) would have done, and followed his method of inserting the epitaphs in the respective parishes, as well as in other particulars'. Morant certainly did not share this view. Initially he had intended only to complete Salmon's work, but 'observing what a poor Use he had made of the excellent Materials in his possession' Morant had 'resolved to new-mould what he had published'.<sup>21</sup>

Salmon must have worked at a feverish pace. Anyone familiar with the Holman MS will appreciate the difficulties that he faced in using that historian's working notebook, particularly as he was writing under pressure and in poverty. Though arranged by parishes, Holman's notes are not in any order, and the handwriting is often extremely difficult to decipher. They are cluttered with lengthy genealogies and detailed descriptions of coats of arms, church monuments and parochial charities, much of which Salmon was unable, or did not wish, to include.

By April 1740 three parts had been published, and by February 1741 a further sixteen parts had been printed. Nothing more was issued in the remaining 14 months of his life. It is not known why he failed to complete the work, but perhaps he was already in declining health as well as in desperate financial straits. It is hard to imagine that he had had much time for original research, though there are hints in the text that he had examined some parish registers and court rolls, as well as visiting his Cambridge college library. He added information which post-dated Holman's death, including details of the clergy appointed since Newcourt's time, perhaps gleaned from correspondence with local gentry and clergy.

Overall the work is not as rewarding a read as his *Hertfordshire* and it doubtless suffered from the haste with which it was compiled. *Essex* has no index, though Salmon indicated in his 'Proposal for printing by Subscription' that he had intended to provide one (as well as a title page and list of subscribers) when the work was completed.<sup>22</sup> Some bound volumes do have a title page dated 1740 with a list of subscribers on the verso, but this was probably printed after Salmon's death by the publisher, keen to make his unsold stock more attractive to purchasers. A brief introduction to each parish is followed by the manorial descents, and ends with other items of parochial significance. There are several digressions about Roman roads and related matters, and a very detailed description of the mosaic found at West Mersea in 1730. It is clear from his descriptions that he had personally visited various places in Essex, including Maldon, and Great

Chesterford where he saw the remains of its Roman town walls.<sup>23</sup> There are notes on a variety of topics scattered through the text, including a 30 acre rabbit warren, an abandoned baby, a Civil War incident, a silk mill at Little Hallingbury, the coastal floods of February 1736 and the sale of Welsh cattle in Newport market.<sup>24</sup> He treated with some scepticism the popular belief that the dene holes at Chadwell St Mary were Cunobelin's gold mines, though he noted that there had been 'a recent Bubble for extracting Gold' from the sand inside them. He deplored the demolition of the chancel of Pleshey church and the scattering of the bones of those buried within it. As with his *Surrey* volume, there is evidence of his medical interest in his observations on the decline of leprosy which was due, he believed, to the reduced consumption of salt fish.<sup>25</sup> Considering his interest in medicinal springs in his *Surrey* volume, it is surprising that he makes no mention of those in Essex described by Dr Benjamin Allen in 1699, perhaps because they were not commercially exploited until later in the eighteenth century.<sup>26</sup> He was not averse to a moralistic comment and, in his description of the tiny village of Shopland, he noted 'nor was there any Publick-house, nor any Poor's rate; the former perhaps preventing the latter'.<sup>27</sup>

Even though his *History of Essex* lacked the usual county history's lure of copper plate illustrations, many Essex landowners, as well as a few of the nobility, a number of clergy and six of his fellow physicians were amongst his subscribers. One of the last group was Dr Samuel Jebb, a physician of Stratford, Essex, author and editor of various historical works including the publication in 1740 of the first parts of Brydget's *History of Northamptonshire*.<sup>28</sup> Another medical subscriber was Dr James Taverner, author of *Essay on Witham Spa* published in 1737. Though Salmon might have intended to provide an account of this, Witham was one of the parishes that remained unpublished at his death.

Apart from the achievement of publishing a history based on someone else's rough notes and combining it with information from other sources, Salmon established a well-organised format which was closely followed by Morant. Indeed, at a superficial glance, it is difficult to distinguish between the two, though it should be noted that both authors used the same printer, William Bowyer, for some of their works.<sup>29</sup> Salmon resolved the dilemma that had exercised Holman in 1723 by adopting lettered footnotes in place of outdated marginal references. He used clear headings within the parish texts, and the print on the folio pages is well spaced and easy to read, with personal names set in italics for clarity. The justified criticisms of Salmon's *Essex* should not detract from his achievement in getting so much into print in such a short time. There seems little doubt that if he had lived, and had remained solvent, he would have completed the Essex volume.

These three published county histories were by no means the limit of his topographical work. In 1732, he had begun to collect material for a history of Staffordshire, but generously offered to help Dr Wilkes publish any work that was more advanced than his own.<sup>30</sup> Also, in an undated letter to Richard Rawlinson, he indicated that he was busy gathering information for a history of Middlesex.<sup>31</sup> On this evidence it has been suggested that he might have been planning to establish himself as a compiler and publisher of county histories, though this was rarely a profitable activity. It may be relevant

that, near his London home off Fleet Street, the churchyard of St Dunstan's-in-the-West was a noted centre for bookselling and publishing at that period.

## CONCLUSION

It is difficult to get a measure of the man so long after his death, particularly when there is so little evidence other than his publications, though these do illustrate his political and religious allegiances. His historical works, though reliant on the work of others, did incorporate new material and are enriched by his personal observations and incidental detail. He made no attempt to conceal his own prejudices but showed his merit as a historian by noting that even the most biased account might contain useful material. Writing in *A New Survey of England* about 'monkish chroniclers at the mercy of hearsay and blinded by superstition and religious prejudice', he noted that 'they are indeed to be consulted, but with Grains of Allowance. Some History we are altogether obliged to them for, finding no Footsteps of it in Foreigners'.<sup>32</sup>

Though many of his contemporaries were critical of his Roman topography, he did not lack loyal friends and was able to persuade others to support his publications. It was perhaps unfortunate that two of his major works (*A New Survey* and his *History of Essex*) were soon to be eclipsed by the more accurate and successful publications of Horsley and Morant respectively.

Only two, very brief, personal accounts of Salmon have survived. The first is a warm tribute which the antiquary John Booth wrote in his own copy of Salmon's *History of Essex*. He was, he noted, 'a worthy honest sincere friend and a Man of great Learning & well versed in English Antiquities and in the Knowledge of Phisick'.<sup>33</sup> The second comes from Richard Rawlinson who said that his 'Character as a Man of Honour is known, that he was a Cantabrigian, is in double Orders (though he goes in a lay Habit), relinquished for Conscience, and now practices Physick'.<sup>34</sup>

It is clear that, towards the end of his life, he was in serious financial difficulties. He had inherited no great estate from his father who had died in 1706 leaving him £10 and his library.<sup>35</sup> In a letter to Richard Rawlinson dated 23 July (but without a year) he informed his friend that he was 'very poor' and asked him to use his influence 'for something to remove his misery'.<sup>36</sup> In 1735, in another letter to Rawlinson, he wrote that he had 'for some time' been working on a natural history of Surrey 'to get bread for my family'.<sup>37</sup> The Hertfordshire historian, Reginald Hine, wrote poignantly of his plight:

'How sad was the lot of Nathaniel Salmon, who printed his history [of Hertfordshire] in 1728. Conscience, which makes cowards of some men, constrained him to surrender a modest stipend in the Church and live penuriously by the scrapings and scratching of his quill pen.'<sup>38</sup>

According to his friend, John Booth, Salmon died intestate 'of a Pleuritick Fever' at his house in Johnson's Court off Fleet Street on 2 April 1742.<sup>39</sup> He was buried three days later at the nearby church of St Dunstan's-in-the-West.<sup>40</sup> If there was a headstone or monument—unlikely in view of his poverty—it would have been lost when the old church was demolished and rebuilt on the site of the graveyard in 1829. After Salmon's death, the Jekyll and Holman manuscripts were acquired by Anthony Allen, Master in Chancery and then passed to Salmon's friend, John Booth, before being acquired

by Philip Morant in 1750.<sup>41</sup> Though deeply impoverished by the end of his life, he had managed to hold on to his library which was only sold after his death, presumably to settle his debts and to provide for his wife and three surviving daughters. Though a copy of the 1742 sales catalogue 'of the collection of the ingenious Mr N. Salmon' has survived, it is unfortunate that the sale included the contents of three other gentlemen's libraries.<sup>42</sup> This makes it impossible to identify those volumes that had belonged to Salmon himself, and thereby to learn more about the man from his collection. Even a portrait of him, formerly in Corpus Christi College, Cambridge, has been lost, unless perhaps it languishes unrecognised in a museum or private collection elsewhere.<sup>43</sup> History, a subject to which he was clearly dedicated, has not served him well.

## ENDNOTES

- 1 Gough 1768, 6; Boomgarden 2004; Cooper 2004; Fitch 1893, 243.
- 2 Venn and Venn 1927, 8; Brydges 1815, 62; Connell 2001, 5–12.
- 3 Gerish 1911(b), 142.
- 4 Munk 1878, 26; Connell 2001, 6.
- 5 HALS D/ESa/188. Attempts to locate these letters have been unsuccessful.
- 6 Shaw 1801, vii.
- 7 BL MS Sloane 4077 ff.147–8; Morant 1768, 435. Sloane's reply has not survived. Thane died in 1720.
- 8 Salmon 1736, 7–8, 20, 40, 93, 106, 107 and 138.
- 9 Sweet 2004, 167–70; Gough 1768, 6; Anderson 1881, 4 and 10.
- 10 Doree 2004, 208 and 212; Lukis 1883, 191; Shaw 1801, vii.
- 11 Bodleian Library, Rawl.lett 29. ff. 433, 435 and Rawl.lett.114X. ff. 302, 303 and MS. Don. d.90, pp. 53, 66; HALS D/ESa/188; Nichols 1812, 3, 572 and Nichols 1812, 4, 350.
- 12 Salmon 1731–3, unpaginated.
- 13 HALS D/ESa/188.
- 14 Connell 2001, 5–12; Doree 2004, 208; Gerish 1911(a), 2.
- 15 Hine 1946, 5.
- 16 Salmon 1728, 47, 89, 90, 91, 93, 97, 126, 147, 184, 187 & 203.
- 17 Salmon 1736, 16, 17, 31, 40, 74, 87 and 106.
- 18 Ibid.
- 19 Gough 1780, 370; Sperling 1894, 36.
- 20 Gough 1780, x.
- 21 Gough 1768, 161; Powell 1989; Morant 1768, 1, unpaginated preface.
- 22 Salmon 1740–41, unpaginated. Many bound copies lack this proposal, as well as the final published section of his *History of Essex*. For the purposes of this paper, John Booth's annotated and grangerised copy was used (ESAH library shelf mark: fDA670.E65S2).
- 23 Salmon 1740–41, 131, 135, 162, 427 and 430.
- 24 Ibid.
- 25 Ibid.
- 26 Cowell, 2001, 2.
- 27 Salmon 1740–41, 375.
- 28 Munk 1878, 179.
- 29 Fitch 1893, 238, 240.
- 30 Shaw 1801, vii.
- 31 Bodleian Library, Rawl.Lett.114x.f.300.
- 32 Sweet 2004, 199, quoting Salmon 1731, 32.

- 33 Salmon 1740–41, 465.  
 34 Connell 2001, 7.  
 35 TNA PROB 11/490/25.  
 36 Bodleian Library, Rawl.Lett.114x.f.300.  
 37 Ibid.  
 38 Hine 1946, 5.  
 39 Salmon 1740–41, 465.  
 40 <www.search.ancestry.co.uk> (accessed 13 October 2015).  
 41 Addison 1973, 103–4.  
 42 Bodleian Library 1843, 357.  
 43 Nichols 1812, 5, 489; Dugdale 1819, 1, 218. Dr Lucy Hughes, archivist of Corpus Christi College, has confirmed that Salmon's portrait is no longer in their collection (pers. com.).

#### ABBREVIATIONS

- BL British Library  
 HALS Hertfordshire Archives and Local Studies, County Hall, Hertford  
 ODNB Oxford Dictionary of National Biography  
 TNA The National Archive

#### BIBLIOGRAPHY

- Addison, W. 1973, *Essex Worthies* (Phillimore)  
 Anderson, J. P. 1881, *The Book of British Topography* (London)  
 Bodleian Library 1843, *Catalogus Librorum Impressorum in Bibliotheca Bodleiana* (Oxford)  
 Boomgarden, D. 2004, 'Salmon, Thomas 1647–1706', *ODNB*  
 Brydges, Sir E. 1815, *Restituta: or Titles, Extracts and Characters of Old Books* (London)  
 Connell, N. 2001, 'Nathaniel Salmon 1675–1742: the Hertfordshire historian' in *Hertfordshire's Past*, Ser. 2, issue 50  
 Cooper, T., rev. Carter, P. 2004, 'Salmon, Thomas 1679–1767', *ODNB*

- Cowell, R. and A. 2001, *Essex Spas and Mineral Waters* (Ian Henry Publications)  
 Doree, S. G. 2004, 'Nathaniel Salmon: Hertfordshire's Neglected Historian' in Jones-Baker, D. (ed.) *Hertfordshire in History* (Univ. Hertfordshire Press)  
 Dugdale, J. 1819, *The New British Traveller; or Modern Panorama of England* (London)  
 Fitch, E. A. 1893, 'Historians of Essex; Nathaniel Salmon', *Essex Review*, 2  
 Gerish, W. B. 1911(a), *Nathaniel Salmon: the Hertfordshire historian 1675–1742* (Elliot Stock, London)  
 Gerish, W. B. 1911(b), 'Nathaniel Salmon: the Hertfordshire historian 1675–1742', *The Antiquary* 47  
 Gough, R. 1768, *Anecdotes of British Topography* (London)  
 Gough, R. 1780, *British Topography* 1 (London)  
 Hine, R. 1946, 'A polite bow to our predecessors' in *Hertfordshire Countryside*, 1, no: 1  
 Lukis, W. C. 1883, *Family Memoirs of Rev William Stukeley; and Antiquarian and other Correspondence*, 2 (London)  
 Morant, P. 1768, *History of Essex*, 1, (London)  
 Munk, W. 1878, *The Roll of Royal College of Physicians*, 2 (London)  
 Nichols, J. 1812, *Literary Anecdotes of the Eighteenth Century*, 3, 4, 5 (London)  
 Powell, W.R. 1989, 'Antiquaries in Conflict; Philip Morant versus Richard Gough', *Essex Archaeol. Hist.*, 3rd Ser., 20, 143–146  
 Powell, W. R. 2004, 'Salmon, Nathanael, antiquary' *ODNB*  
 Salmon, N. 1728, *History of Hertfordshire* (London)  
 Salmon, N. 1731, *A New Survey of England: wherein the Defects of Camden are supplied* (London)  
 Salmon, N. 1731–33, *Lives of the English Bishops from the Restauration to the Revolution* (London)  
 Salmon, N. 1736, *Antiquities of Surrey* (London)  
 Salmon, N. 1740–41, *History of Essex* (London)  
 Shaw S. 1801, *History and Antiquities of Staffordshire*, 2, pt. 1 (London)  
 Sperling, C. F. D. 1894, 'Historians of Essex: Philip Morant', *Essex Review* 3, 27–41  
 Sweet, R. 2004, *Antiquaries: The Discovery of the Past in Eighteenth Century Britain* (London)  
 Venn, J. and Venn., J. A. 1927, *Alumni Cantabrigienses*, 4, pt. 1 (Cambridge Univ. Press)



# Archaeological Fieldwork Summaries 2016

Edited by Paul Gilman

Following the revival of the publication of summaries in Volume 6, four archaeological organisations have provided summaries for this year's transactions. All are for 2016, except for the Colchester Archaeological Trust, whose contribution covers both 2015 and 2016. 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 Archaeological Advisory Service, Historic England, 4th floor, Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA.

Other summaries of archaeological work carried out in 2016 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](http://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

### **Alresford, Land at Heath and Sunnymead Farms, Essex (TM 05843 22402)**

*Mark Germany*

Evaluation was undertaken across 65ha of agricultural land within which a preceding geophysical survey had identified a number of anomalies of potential archaeological interest. A total of forty trenches were excavated, some targeted upon selected plotted anomalies. Twelve trenches, mostly in the north-west of the site close to the Sixpenny Brook, contained archaeological remains. A number of the geophysical anomalies were demonstrated to correspond with the presence of below-ground remains.

A single pit, broadly dated as prehistoric was recorded in the site's north-west corner. Four adjacent trenches in the central-west part of the site revealed Late Iron Age/Early Roman ditches, with over 100 sherds of pottery being retrieved from one. These ditches possibly defined an enclosure system along the east side of the Sixpenny Brook. A single medieval pit is present toward the northern edge of the site. Remains of the post-medieval enclosure system, dating at least from the early 18th century, were widespread across the site. This field system is recorded extensively by historic mapping from 1730 onwards.

Archive: C.M.

O.A.S.I.S. ref: 266240

A.S.E. project: 160124

### **Basildon, land at Nethermayne (Phase 1), Kingswood (TQ 69710 86940)**

*Paulo Clemente and Mark Germany*

Trial trench evaluation and subsequent area excavation were carried out in advance of Phase 1 residential development within the east-central part of the former Longwood Riding School and Equestrian Centre, to the west of Basildon Hospital. A previous phase of trial trenching in 2006 identified Neolithic, Bronze Age, Iron Age, Roman and Saxon features and finds across the north-west part of the wider development site.

Evaluation of the remaining 5.5ha of the Phase 1 area site encountered remains in only four of the thirty-five trenches: a single undated pit and two ditches or gullies that related to the 19th-century agricultural landscape. The concentration of multi-phase remains found in the north-west in 2006 clearly did not extend southwards.

The subsequent 5,460sq m excavation area was located on the northern edge of the Phase 1 development area, in the vicinity of the 2006 evaluation. This recorded a single Late Bronze Age/Early Iron Age pit, two Late Roman pits, and two ditches and a number of small pits of Early Saxon date. These mark the southern periphery of an apparent concentration of archaeological remains that extends north into the central part of the future Phase 2 development area.

Archive: S.M.

O.A.S.I.S. ref: 256205 and 273279

A.S.E. project: 8444 and 160877

### **Boreham, Bulls Lodge Quarry (TL 73250 12650)**

*Trevor Ennis*

A 4.27ha area was stripped and investigated in advance of the north-western enlargement of extraction works at Bulls Lodge Quarry. This is part of an ongoing programme of monitoring and investigation within the west of the quarry begun in 2005/06, though archaeological works have been undertaken in the wider quarry since 1990.

The earliest remains consisted of a north-east to south-west aligned boundary ditch and a pit dating to the Late Bronze Age. A further undated perpendicular ditch may have been a contemporary part of a field system. A sinuous Middle Iron Age ditch hinted at a second period of prehistoric land use. A number of undated pits were probably also in fact of prehistoric date and part of a wider scatter of prehistoric pits previously encountered within the western side of the quarry. Two parallel ditches of probable Roman date, perhaps defining a wide track or drove way across the landscape mark a distinct change in its organisation. An east to west ditch and a nearby gully contained pottery dating to the later 12th to early 13th century along with a range of other finds of a domestic character, perhaps indicating the presence of an occupation site located north of the site alongside Cranham Road. Further ditches defined parts of the post-medieval land enclosure system.

Archive: Ch.E.M.

O.A.S.I.S. ref: 282647

A.S.E. project: 160713

**Bradwell Juxta Coggeshall, Bradwell Quarry****Area A4/Phase 3***Ellen Heppell*

Excavation was carried out across a 3.2ha area of arable land situated in the north-eastern corner of Bradwell Quarry (formerly Rivenhall Airfield), in advance of extraction of sand and gravel. The work followed evaluation by trial trenching in 2012 and is part of the ongoing investigation of the wider quarry begun in 1991.

The truncated remains of five Late Iron Age/Early Roman cremation burials were identified, one containing a fragmentary ceramic vessel dated *c.*AD 10–70. A sample of burnt bone from the same burial has been radiocarbon dated as 20 cal. BC–AD cal. 125 (BETA-455775; 1950±30).

With the exception of modern airfield remains/disturbance the only other archaeological features were post-medieval field ditches, backfilled in the 19th century.

Archive: Bt.M.

O.A.S.I.S. ref: 284551

A.S.E. project: 160305

**Bradwell Juxta Coggeshall, Bradwell Quarry****Area A4/Phase 4 (TL 83260 20950)***Trevor Ennis*

A strip, map and sample excavation was carried out over a *c.*3.5ha area of arable land in the north-eastern corner of Bradwell Quarry (formerly Rivenhall Airfield) in advance of sand and gravel extraction. The work followed evaluation by trial trenching in 2012 and is part of the ongoing investigation of the wider quarry begun in 1991.

Seven undated pits and post-holes in the east of the site could potentially have been of prehistoric date. The majority of recorded remains dated to the medieval period and were concentrated in the north-west of the site. Ditches defining several small enclosures, possible structural features and a few pits constituted part of a farmstead located adjacent to Cut Hedge Lane. Pottery evidence suggests that the farmstead was in fairly continuous use from the early 13th century into the 14th century.

Various ditches related to late post-medieval agricultural land use, some of which persisted into the 20th century when they were infilled with brick rubble as part of the levelling of this vicinity during construction of the World War Two airfield.

Archive: Bt.M.

OASIS ref: 281094

ASE project: 160891

**Chipping Ongar, Fyfield Business Park, Fyfield Road (TL 55734 05014)***Mark Germany and Kieron Heard*

A trial-trenching evaluation and subsequent area excavation were carried out in advance of the redevelopment of Fyfield Business Park. The evaluation consisted of twenty-one trenches deployed across the accessible areas of the *c.*4.6ha site which identified remains relating to a post-medieval farm alongside Fyfield Road. Residual medieval and Tudor finds were also recovered, hinting at its earlier origin. Other features contained material of 18th- and 19th-century date.

The subsequent excavation targeted the former farm complex. Prehistoric activity was represented by at least one Late Bronze Age pit and an associated ditch, and a double-ditched boundary of possible Late Iron Age or Roman date. Medieval occupation was suggested by part of a possible beam slot and an adjacent ditch, the latter containing 14th-century pottery.

Part of a timber-framed building (defined by post-holes) with a chimney constructed of 'Tudor' brick represented the earliest definite evidence for Boarded Barns Farm. The building was located at the corner of an enclosure defined by a substantial ditch with 14th- to 16th-century pottery in its primary fills. A building at this location is identifiable on maps until the end of the 19th century.

The enclosure ditch was backfilled in the late 17th or early 18th century when the farm complex was enlarged. Partial foundation trenches of at least one post-medieval farm building survived, although another building, known from map evidence, left no trace. Boundary ditches to the east and north of the farm buildings showed how the farmyard and adjacent fields were remodelled on at least two occasions during the 18th and 19th centuries.

Layers of brick, tile and flint rubble overlying the building remains and former farmyard represented the demolition of the original Boarded Barns Farm in about 1890.

Archive: Epping Forest District Museum

O.A.S.I.S. ref: 261524

A.S.E. project: 160563 and 160975

**Colchester, land north and south of United Way (TL 99596 28908)***Robin Wroe-Brown*

A trial trenching evaluation was undertaken on land that was once agricultural fields south of, and associated with, the former Severalls Asylum, or Hospital, site. Sixty-seven trenches were excavated, revealing late 19th/20th-century remains in twelve of them, including a number of field boundary ditches. Only a single undated pit was considered to be of likely pre-modern origin. A pit of probable mid-20th-century date contained a large quantity of institutional crockery and ceramic vases that is very likely to have derived from the hospital.

Archive: C.M.

O.A.S.I.S. ref: 251856

A.S.E. project: 8541

**Colchester, land north of Axial Way (TM 99950 29110)***Mark Germany*

Evaluation was carried out in advance of the commercial development of this 0.7ha site. Previous investigations to the north and west recorded charcoal-filled pits of probable Iron Age date. Three of the five trenches excavated contained a low density of archaeological remains, comprising two sides of a ditched field enclosure shown on later 19th- and 20th-century Ordnance Survey (OS) mapping, and an undated gully. No charcoal-filled pits were encountered.

Archive: C.M.

O.A.S.I.S. ref: 260372

A.S.E. project: 16608

**Colchester, Philip Morant School and College,  
Rembrandt Way (TL 9766 2431)**

*Robin Wroe-Brown*

An evaluation comprising seven trial trenches within a 1.5ha area of sports fields was undertaken in advance of the construction of additional school buildings and facilities. This site is adjacent to the Lexden Dyke scheduled monument, part of the Iron Age dyke system defining the *Camulodunum* oppidum, and the Heath Farm Dyke has been postulated to cross the site. A preceding geophysical survey of the site was however inconclusive.

Archaeological features were recorded in four trenches, comprising two pits, a ditch terminus and a very large feature which may have been either linear or a quarry pit. All were probably of post-medieval date.

Archive: C.M.

O.A.S.I.S. ref: 270619

A.S.E. project: 160988

**Copford, Land at Hall Road (TL 93297 23914)**

*Sarah Ritchie*

Evaluation was carried out prior to residential development of a c. 1.9ha site where preceding geophysical survey had detected the presence of anomalies interpreted as a linear ditch and a possible large oval enclosure. Four evaluation trenches were excavated, two of which contained pits and a ditch of Early Iron Age date (c. 800–500 BC). The geophysical anomalies were demonstrated to be of wholly natural origin.

Archive: C.M.

O.A.S.I.S. ref: 264959

A.S.E. project: 160784

**Fryerning, Fryerning Hall, Colchester Road  
(TL 6388 0019)**

*Trevor Ennis*

Monitoring was undertaken during groundworks for the construction of a single storey extension and internal floor replacement at Fryerning Hall, which has 15th-century origins and was altered and enlarged in the succeeding centuries. No remains of medieval or earlier date were identified, other than two sherds of abraded residual pottery of the late 12th–14th century.

Internally, a tile foundation deposit of possible 15th-century date in the Drawing Room and a tile-and-brick foundation deposit of c. 16th-century date in the Kitchen were observed. Fragments of brick structures in the Breakfast Room may have been part of the original foundations for a 17th-century fireplace while three layers, one containing coal and charcoal, were probably associated with the extant post-medieval fireplace. A brick and tile-lined drain of late 17th- or 18th-century date was also observed running under the floors of the house.

Externally, a pit of late 15th- or 16th- century date was recorded during excavation of a soakaway to the west of the house.

Archive: Ch.E.M

O.A.S.I.S. ref: 277086

A.S.E. project: 8540

**Great Dunmow, Land North of Ongar Road  
(TL 62765 21040)**

*Mark Germany*

Evaluation was undertaken in advance of residential development of a 3.65ha green-field site located on the south-west edge of the town. Twenty-five trenches were investigated but revealed few archaeological features, mainly comprising the remains of two post-medieval ditches and a post-medieval or modern fence-line represented by a line of post-holes. A small quantity of Roman ceramic building material and Early Iron Age and Saxon pottery sherds were also found but were residual in later deposits and features. The results of the evaluation suggest that the site has never been intensively occupied; historic mapping suggests this area was formerly within a deer park.

Archive: S.W.M.

O.A.S.I.S. ref: 258062

A.S.E. project: 160210

**Great Dunmow, land south of Ongar Road  
(TL 63000 20900)**

*Paulo Clemente*

Trial-trenching evaluation and subsequent area excavation were undertaken in advance of residential development. The investigation of twenty-three trenches recorded a low density of ditches, gullies and pits across the 3.5ha site, with a concentration of remains of apparent prehistoric, Roman, Saxon and medieval date identified in its north-east, alongside Ongar Road.

This concentration was investigated within a 5,300sq m excavation area. A low density of Mesolithic to Neolithic/Early Bronze Age and Late Bronze Age/Early Iron Age features were recorded. The majority of the remains were of Roman date, primarily 3rd century. A rectilinear field system with related discrete features was subsequently modified by the insertion of a rectangular enclosure measuring 34m × 29m. The north-western part of the enclosure interior was occupied by a concentration of post-holes and gullies, possibly a hut and associated fencelines. It is possible that the enclosure may have functioned as a livestock stockade.

A small quantity of Early Saxon features and deposits suggest land use within the remains of the abandoned Roman agricultural landscape.

13th/14th-century quarry pits and a complex of interconnecting sinuous gullies, the latter speculated to be the below-ground remains of hedged boundaries, indicate the nature of land use in the medieval period. These may indicate the presence of a contemporary farmstead, perhaps alongside the former Roman Road between Dunmow and Chelmsford.

Archive: S.W.M.

O.A.S.I.S. ref: 269146

A.S.E. project: 160550

**Great Notley, Land adjacent to Bakers Lane  
(TL 744417 20376)**

*Angus Forshaw*

Evaluation was carried out in advance of residential development on a 3.9ha site on the east periphery of the village and directly adjacent to the Chelmsford to Braintree Roman

road (London Road). The 28 trenches recorded a low density and low complexity of ditches, pits, a pond and a few possible layers, all of post-medieval date, across the western part of the site. Residual medieval pottery was present in subsoil layers and later features. However, no medieval features were identified.

Archive: Bt.M  
O.A.S.I.S. ref: 272685  
A.S.E. project: 160888

### **Halstead, Central Piling site, Colchester Road (TL 82420 30150)**

*Trevor Ennis*

Evaluation of land at the former Central Piling site was undertaken in advance of residential development on behalf of CgMs Consulting.

The evaluation area covered 0.45 hectares and was located adjacent to Colchester Road. Four trial trenches were excavated.

No archaeological remains of significance were identified. The few features present were all of modern date and were almost certainly associated with previously demolished later 19th- and 20th-century buildings. Land in the north-east of the area, the site of a former post-World War Two petrol station, had clearly been truncated whilst ground levels in the south had been raised by the addition of modern building rubble and other mixed deposits. Existing truncation around the south-eastern and south-western periphery of the site had resulted from 20th-century mineral extraction and subsequent landscaping associated with the construction of the engineering works.

The results of the evaluation suggest that this land located at the edge of Halstead was not extensively utilised, except perhaps as farmland, until the late 19th and 20th century.

Archive: Bt.M.  
O.A.S.I.S. ref: 247363  
A.S.E. project: 160079

### **Little Bardfield, land west of Hill Hall, Little Sampford Road, Hawkspur Green (TL 65243 32172)**

*Robin Wroe-Brown*

Excavation was carried out in advance of a 11.7ha solar farm development. The excavation followed a 2015 evaluation and targeted remains identified by this and a preceding geophysical survey within two areas totalling 5,236sq m.

Excavation Area 2 contained two enclosures of Late Bronze Age/Early Iron Age date, delimited by shallow ditches. The northern enclosure was agricultural, probably associated with stock management. The southern enclosure included a cooking pit and may have had a more domestic nature. However, no dwellings or other buildings were found within either enclosure.

Excavation Area 1 contained the remains of a medieval field system comprising three strip fields divided by shallow ditches. The central field was utilised for crop processing and included a corn dryer and a well.

Both areas were crossed by late post-medieval field boundary ditches that are shown on the 19th-century Tithe Map.

Archive: S.W.M.  
O.A.S.I.S. ref: 266947  
A.S.E. project: 160604

### **Maldon, 50 Beeleigh Road (TL 84688 07271)**

*Robin Wroe-Brown*

Evaluation was undertaken prior to residential development, the 0.45ha site being immediately north of the perceived location of the Saxon burh. Two trenches were excavated within the proposed footprints of a house and garage. A late medieval ditch and a post-medieval pit were recorded; the ditch may reflect an ancient boundary aligned with the route emerging north from the burh.

Archive: C.M.  
O.A.S.I.S. ref: 252132  
A.S.E. project: 160273

### **Pitsea, The Bull Public House, London Road (TQ 74653 88258)**

*Trevor Ennis*

Archaeological investigation was undertaken at the 0.6ha site of the former The Bull public house in advance of and during its residential redevelopment. A building is first shown as occupying the site on the Chapman and Andre map of 1777. A more detailed drawing of this, or its replacement, is depicted on the 1st Edition OS map of 1868. Documentary evidence indicates that there was a public house on site from at least 1828/9.

Six trial trenches were initially excavated, identifying the presence of medieval remains consisting of a gully dated as 13th/14th century and a layer as 14th/15th century, as well as post-medieval structural remains. Monitoring of construction groundworks resulted in further residual medieval pottery being retrieved from later deposits. The remains of two walls constructed from bricks of late 18th- to mid-19th-century date, and an adjacent brick floor, may have been part of the building shown on historic mapping. These, and various external drainage gullies, brick culverts, brick-and-cobble yard surfaces, a well and a large pond, all probably predated the recently demolished public house, which was constructed c. 1875. Most of the recovered pottery dates to the 18th century and includes sherds from plates, bowls, stoneware tavern mugs and possible chamber pots, which could suggest that the building depicted in 1777 was already in use as a public house.

Archive: S.M.  
O.A.S.I.S. ref: 247319  
A.S.E. project: 160015

### **Rayne, land at Broadfield Farm, Dunmow Road (TL 71131 22913)**

*Kate Clover*

Trial-trenching evaluation was carried out across 90ha of agricultural land immediately north of Dunmow Road (the former A120 and Roman Stane Street). Eighty trial trenches were excavated, mostly targeting geophysical anomalies

identified by a 2015 geophysical survey. Thirty-four contained archaeological remains, some of which correlated with plotted geophysical survey anomalies, mostly in the south of the site towards the road.

A small number of pits and ditches of probable Bronze Age, Middle Iron Age and Early Iron Age date were identified. A greater quantity of Late Iron Age/Early Roman ditches, gullies, pits and post-holes may constitute rural settlement and agricultural activity alongside Stane Street. Remains of this date were previously recorded along the route of the current A120 bypass, including at the Rayne Roundabout immediately to the south of the site.

In the north of the site, recorded remains mainly consisted of post-medieval/19th-century field boundary ditches.

Archive: Bt.M.  
O.A.S.I.S. ref: 255902  
A.S.E. project: 160225

**Rochford, land north of Hall Road  
(TQ 86530 90670)**

*Kate Clover and Robin Wroe-Brown*

Excavation of four areas, totalling 1.38ha, was carried out following evaluation of this residential development site in 2012.

Remains of a Middle/Late Bronze Age rectilinear field system was recorded for a distance of 350m across the east of the site. Its layout comprised fields and flanking trackways, with some subdivisions and pens located entrance points, perhaps suggesting a mixed pastoral and arable farming regime. No definite domestic structures associated with the field system were found, though occasional pits containing occupation-like debris were present, as were a possible waterhole and a ditch containing a placed deposit of an inverted vessel.

Remains of an enclosed medieval farmstead that fronted Ironwell Lane were recorded in the northeast of the site. Three phases of activity, spanning the 11th–13th centuries, were apparent. Seemingly representing activities undertaken within the rear of the roadside plot, a number of rubbish pits, tanks, a well, latrine and a sequence of subdivisions pens and/or possible outbuilding remains were investigated. The farmstead was evidently abandoned in the earlier 13th century and its site reverted to farmland.

Archive: S.M.  
O.A.S.I.S. ref: 262668  
A.S.E. project: 8551

**Saffron Walden, Harts Yard, King Street  
(TL 553745 238515)**

*Mark Germany*

A small excavation preceded residential development within Harts Yard, in the historic core of the town. The upper fill sequence within a part of the early to mid 12th-century outer bailey ditch of Walden Castle was investigated, the lower part being left *in situ* under the development. It appears that this vicinity of the ditch was not completely infilled until sometime in the late 14th to 16th centuries.

The remains of the northern end of a timber 16th-century building with a clay floor, and its possible replacement,

extended into the site. These are speculated to have been ancillary structures within the backyard of a house and/or business fronting onto King Street to the south. A contemporary 16th-century pit was also recorded.

Archive: S.W.M.  
O.A.S.I.S. ref: 258472  
A.S.E. project: 8529

**Sandon, land at Hammonds Farm  
(TL 75073 06169)**

*Paulo Clemente*

Archaeological evaluation was carried out across an 11ha site located just east of the Sandon Park and Ride site where excavation in 2007 recorded Bronze Age settlement remains. Thirty-five trenches were targeted upon plotted cropmark features, twenty-nine of which were found to contain archaeological remains, primarily ditches that correlated with the cropmarks.

Small quantities of residual worked flint and possible Bronze Age pottery were recovered from a number of features and a possibly Bronze Age cremation burial was found in the south of the site. Two concentrations of remains of Late Iron Age to Early Roman date were identified; rectilinear ditched enclosures and extensive boundaries/trackways across the western half of the site and a circular ditched enclosure, associated with a small square enclosure, toward the eastern edge of the site.

A single possible medieval/early post-medieval boundary ditch was identified along the northern site boundary. A number of the linear cropmark features were demonstrated to relate to agricultural field boundaries and drainage, some of which were recorded by historic OS mapping.

Archive: Ch.E.M  
O.A.S.I.S. ref: 260215  
A.S.E. project: 160499

**Silver End, land west of Boars Tye Road  
(TL 80770 20250)**

*Kate Clover*

Evaluation comprising fifteen trenches across a 2.2ha area was carried out in advance of residential development. Located at the northern end of the village of Silver End, later prehistoric remains were known in the close vicinity and the adjacent Boars Tye Farm is of medieval origin.

Five trenches contained archaeological remains comprising two pits containing Bronze Age pottery, one of which contained most of a broken vessel of Middle or Late Bronze Age date. A medieval quarry pit was recorded in the south-western edge of the site. Two parallel ditches running north-east to south-west probably related to a modern field boundary.

Archive: Bt.M.  
O.A.S.I.S. ref: 266925  
A.S.E. project: 160777



**Stanway, Land east of Warren Lane  
(TL 95210 23370)**

*Robin Wroe-Brown*

Evaluation by trial trenching was undertaken in advance of residential development. Historic mapping shows the site as fields, with a farmhouse located in the northern corner, apart from gravel quarrying in the centre of the area, from the 18th century onwards. Twenty-two trenches were excavated across the 1.84ha site with a pit, a post-hole and a ditch, all undated, being recorded in three.

Archive: C.M.

O.A.S.I.S. ref: 274419

A.S.E. project: 161089

**Thorpe-Le-Soken, land north of Abbey Street  
(TM 1840 2230)**

*Trevor Ennis*

Eight trial-trenches were excavated across the 2.4h development area. Four sherds of residual 12th- to 14th-century pottery were recovered that may have been imported onto the site, perhaps as a result of manuring. All of the recorded features, four east to west aligned ditches and a layer, dated to the later post-medieval period and were probably associated with agricultural activity. The earliest ditch was infilled in the 18th century; the others being 19th century with two shown as field boundaries on the 1842 Tithe map.

Archive: C.M.

O.A.S.I.S. ref: 255713

A.S.E. project: 8452

**Witham, land east of Forest Road, Phase 1  
(TL 82700 16250)**

*Samara King*

In 2015 evaluation had confirmed various plotted cropmarks within the south and west of this 6.5ha Phase 1 area of a residential development on the northeast edge of Witham to be those of an Iron Age enclosure and a World War One practice trench (Gilman 2015, 373). Two areas of the Phase 1 site, totalling c.1.47ha, were consequently selected for excavation, focusing on possible Iron Age field boundaries (Area 1) and the cropmark enclosure (Area 2).

A high density of Early to Middle Iron Age remains, mostly ditches, gullies, pits and post-holes, across the eastern half of Area 2 defined multi-phase occupation broadly spanning the period c.800–300 BC and evidence of its transition from an open to enclosed settlement. In its later manifestation, this settlement was probably a single farmstead occupying a roughly rectangular enclosure of c.2,400sq m extent. Outlying ditches in the west of Area 2 and across Area 1 are interpreted as the remains of contemporary field systems surrounding the Iron Age occupation focus.

The enclosed settlement appears to have been abandoned by the end of the Middle Iron Age. Although there is some slight evidence for continued land use in the Late Iron Age/ Early Roman period, including probable use of the residual remains of the enclosure, concerted activity in this landscape is not evident again until the post-medieval period as denoted by ditches defining the agricultural enclosure system.

Lastly, the distinctive ‘crenellated’ plan form of a World War One practice trench was recorded to cross the site of the Iron Age enclosure. Some 47m long, this appears to have represented only a dismantled and backfilled frontline trench, the typical complex of supporting trenches to its rear evidently not having been constructed in this instance.

Archive: Bt.M.

O.A.S.I.S. ref: 285672

A.S.E. project: 160057

**Witham, Lodge Farm, Hatfield Road  
(TL 80727 13307)**

*Angus Forshaw and Robin Wroe-Brown*

Archaeological evaluation and subsequent excavation were carried out prior to the construction of a new housing development on the south-west edge of Witham. The 6.3ha site was located west of the previous major archaeological excavations at Ivy Chimneys and Maltings Lane.

The earliest recorded feature was a single Neolithic pit. Bronze Age and Early Iron Age activity was concentrated in the north where remains of a disturbed barrow were cut by pits and associated with charcoal-rich patches that contained small quantities of burnt human bone; however, no specific cremation grave pits were identified. Other pits of similar date were scattered across the site, including one containing a quantity of semi-complete pottery vessels.

Late Iron Age and Roman features included a routeway crossing the site from south-west to north-east, defined by a wide, shallow, linear cut into the base of which two parallel flanking ditches were dug. A thin gravel layer between the ditches may have represented a surface. A narrow ditch ran orthogonally to the routeway, perhaps denoting a field system alongside. Other features of this period included a cremation burial cut into the earlier barrow, a quarry and three large shallow hollows. The routeway was of mid/late 1st-century date and may have been a formal, perhaps even ceremonial, way leading to the religious site at Ivy Chimneys c.350m to the east.

Medieval remains in the south of the site may constitute parts of a farmstead alongside Hatfield Road. A north-west to south-east orientated ditch was recut three times, indicating a long-lived field boundary. Part of an open-ended timber structure such as an animal shelter was represented by two parallel beam slots and accompanied by a scatter of pits. Associated pottery supplied a probable 11th- to 13th-century date range.

Archive: Bt.M.

O.A.S.I.S. ref: 269572

A.S.E. project: 160058

**COLCHESTER ARCHAEOLOGICAL TRUST  
2015–2016**

Compiled by Howard Brooks

**Billericay, 101 Laindon Road (TQ 67448 93729)**

*Nigel Rayner, Ben Holloway, Stephen Benfield, Laura Pooley*

Evaluation in advance of, and followed by monitoring the construction of, two new dwellings revealed that a Late Iron Age and Roman settlement (found at an adjacent school in the

1970s), continued to the southwest. Four Roman features were excavated (a probable boundary ditch, two pits and a pit/post-hole). The small selection of Roman finds suggests a relatively low status rural settlement of probable 1st- to 3rd-century date. The ceramic building material may indicate the presence of unmortared structures nearby. One Late Iron Age/early Roman pit and two Roman pits were recorded during monitoring.

Archive: Ch.E.M.

O.A.S.I.S refs: colchest3–259981: 267923

C.A.T. Reports: 1006, 1057

**Birch, Maldon Road, Hanson Quarry  
(TL 9225 1935)**

*Ben Holloway, Emma Sanford, Felix Whymark, Adam Wightman*

Since the late 1990s, the expansion of the Hanson Birch Quarry has been preceded by archaeological monitoring and excavation. The 2014 and 2015 (Stage 7 and Stage 8) western extension of the quarry (adjacent to areas investigated in 2004, 2008, and 2013), is Area K in the sequence of codes attributed to the various quarry areas.

Apart from the remains of the World War Two airfield (whose construction and removal have caused much damage here) a monitoring and excavation programme revealed three post-medieval field boundaries, and twelve post-holes convincingly arranged as three ‘four-post’ structures. Dated finds are rare, but five of the post-holes contained Early Iron Age pottery, and one contained a Roman sherd.

Archive: C.M.

O.A.S.I.S. ref: 249470

C.A.T. Report: 807

**Birdbrook, Westrope Haulage Yard, Sturmer Road (TL 70980 42788)**

*Ben Holloway, Stephen Benfield, Lisa Gray, Adam Wightman, Laura Pooley*

This site is close to a Roman cemetery. An earlier evaluation in 2011 (CAT Report 698) had found only residual Roman pottery and prehistoric worked flints. Three out of four evaluation trenches in advance of the construction of new offices/light industrial units were blank. However, the fourth trench contained the partial remains of a Roman clay-lined hearth/oven and a Roman pit, and two residual Mesolithic microliths.

Archive: Bt.M.

O.A.S.I.S ref: colchest3–264961

C.A.T. Report: 1030

**Boreham, New Hall School, The Avenue  
(TL 7343 1038)**

*Ben Holloway, Emma Holloway, Chris Lister, Robin Mathieson, Jane Roberts, Alec Wade, Laura Pooley*

New Hall School is located on the site of a medieval manor and later Tudor palace (Beaulieu) built by Henry VIII in 1517. Part of the palace survives and is still used by the school, with the surviving north wing located immediately south of the current site.

Monitoring and recording in advance of the construction of a covered play area and school offices in the north quad

courtyard recorded five post-medieval brick walls and a brick floor. These are probably all associated with the Tudor palace. Two walls and the floor dated from the 15th to the early 17th century. One wall was possibly part of a boundary. The other wall and associated floor were probably part of a previously unknown room or set of rooms to the north of the surviving north wing. A third wall dating from the 17th to the early 18th century, along with two other later post-medieval walls, may represent later additions or repairs.

A later evaluation by twelve trial-trenches in advance of the construction of new all-weather sports pitches revealed no significant archaeological features or finds (TL 7323 1045). Similarly, a later evaluation by one trench on the site of the new Rugby changing rooms revealed no significant archaeological features or finds (TL 7344 1039).

Archive: Ch.E.M.

O.A.S.I.S refs: colchest3–239904: 258026: 270247

C.A.T. Reports: 952, 1003, 1053

**Boxted, Hill Farm, Boxted Cross  
(TM 0044 3248)**

*Ben Holloway, Mark Baister, Sarah Carter, Jane Roberts, Nigel Rayner, Alec Wade, Stephen Benfield, Lisa Gray, Adam Wightman, Laura Pooley*

The site is close to a number of prehistoric cropmarks and field systems, including the Boxted ‘henge’ (400m to the north-east). Evaluation by eighteen trial-trenches prior to residential development revealed a possible prehistoric field boundary running north-east to south-west across the site, a possible medieval pit, a post-medieval (16th–17th century) ditch and brick foundation, a number of undated ditches, pits and postholes, and several modern features.

Archive: C.M.,

O.A.S.I.S ref: colchest3–269054

C.A.T. Report: 1049

**Braintree, land west of Panfield Lane  
(TL 7508 2416)**

*Mark Baister, Sarah Carter, Jon Dodd, Robin Mathieson, Stephen Benfield, Lisa Gray, Adam Wightman, Emma Holloway, Jane Roberts, Alec Wade, Laura Pooley*

The site is within an area of cropmarks, and Roman and medieval features were revealed in a 2014 monitoring (Green and Reeds 2016). Evaluation (ninety-four trial-trenches) was carried out on Phase 1 land in advance of the construction of new housing estate. The earliest features were two Late Bronze Age/Early Iron Age pits. Four ditches and three pits in the centre of the site dated to the Early Roman period (early/mid-late 1st century—early/mid 2nd century), and were possibly associated with chalk quarrying and nearby low-status occupation. Thirteen features (five ditches and eight pits) dated to the post-medieval/modern and modern periods. The ditches formed old field boundaries, two of which had previously been plotted as cropmarks.

Archive: Bt.M.

O.A.S.I.S ref: colchest3–260783

C.A.T. Report: 1034

**Brentwood, 73–73a High Street (TQ 5942 9378)***Adam Wightman, Stephen Benfield, Howard Brooks*

The site is on Brentwood High Street, on the north side of a Roman road, in the core of the medieval and later town, and opposite St Thomas Becket's Chapel. Evaluation and excavation prior to commercial development revealed six periods of activity. Early activity was represented by a residual Roman sherd and a quernstone fragment. The earliest structure is an undated but probably 13th to 14th-century timber fence (or possibly part of a building: Period 1). In the 15th/16th century (Period 2), finds of thimbles and needles indicate dress-making and other craft activities. A large gravelled yard to the rear was reached by a gravelled passageway off the High Street. The layout of the Period 2 structure resembles a coaching inn, and may be an early example of that type of establishment, situated on a busy through-road of Roman origin. In the 16th/17th century (Period 3), there were four ovens or hearths inside the building, and six outside. Small quantities of hammerscale and cereal grains indicate smithing inside the building and grain drying outside it. In this context, the building is more likely to be commercial than domestic. The external hearths did not last long, because they were covered by the floors of a 17th-century rear extension. Another major change came in the 18th century (Period 4) when a new building was erected across the full width of the site. It was set farther back from the frontage than the Period 2/3 structure, indicating strongly that it was jettied. To the rear was a brick cellar set about 600mm below floor level (presumably a commercial cool store). The new house covered the gravel passageway to the rear yard, showing that (at the height of the Brentwood coaching trade), this property was no longer a coaching inn. Period 5 (18th–19th century) saw another change in site layout. An unusual chimney breast was inserted into the Period 4 cellar. It lacked a normal hearth, but instead had a brick stack—the support for a raised smithing station? To the rear of the possible smith's station, a new three-roomed brick structure was erected (domestic accommodation or commercial property?). At the end of this period, a group of glass vessels was inserted behind the brick stack. These were originally pharmaceutical phials, used for oils and medicines. However, their insertion behind the chimney stack may have been apotropaic. A small metal 16th/17th-century vessel may have been a holy oil container. There is an obvious link with St Thomas' Chapel, just across the road from the site, and pilgrim traffic passing through Brentwood.

Archive: Ch.E.M.

O.A.S.I.S: colchest3–257716

C.A.T Report: 1076

**Canewdon, 'Three Acres', Anchor Lane (TQ 8967 9428)***Ben Holloway, Laura Pooley*

Evaluation on a site west of the village centre revealed medieval ditches, gullies and pits. These may be parts of a field system and possible occupation 250m south of the late Saxon/early medieval church.

Archive: S.M.

O.A.S.I.S: colchest3–266821

CAT Report 1036

**Castle Heddingham, Heddingham Castle (TL 78707 35867)***Mark Baister, Stephen Benfield*

Over the course of 18 months, a programme of archaeological investigation was carried out during extensive restoration and modernising works. This included monitoring of new service trenches, excavation of exploratory test pits, and building recording. A substantial amount of Tudor and later post-medieval build up was uncovered within the motte, butting up against the rampart. The lack of Norman or later medieval layers in the motte is instructive. It suggests terracing and infill between the keep and the rampart in the Tudor and later post-medieval period. A brick foundation built into the rampart was the only Tudor building uncovered within the motte (in contrast to excavations in 1868, which uncovered numerous Tudor foundations). Test pits in the keep basement exposed much infill and damage from the fire in 1918. It seems likely that during the early modern period the keep surface was covered with a clay floor. In the forebuilding it has been possible to deduce a string of events, from its initial construction onto the keep as a later addition, right through to its eventual demolition for building materials used in the construction of the 1719 mansion house. Importantly, this monitoring has confirmed the location of both the gatehouse and the existence of a curtain wall around the motte, both of which were encountered in 1868.

Archive: S.W.M.

C.A.T. Report: 849

**Colchester, 'Playgolf Colchester', Bakers Lane (TL 973 263)***Mark Baister, Robin Mathieson, Alec Wade, Emma Holloway, Laura Pooley*

The site is 200m west of the late Iron Age Moat Farm Dyke (which runs along the eastern edge of the golf course), and 50m north-east of a Late Iron Age/Early Roman burial (under the current clubhouse). Evaluation by nine trenches in advance of the construction of an adventure golf course revealed seven post-medieval/modern features, two undated pits and three structural features associated with a large quantity of fired clay probably from a wattle and daub structure. One fragment of Roman tile was found in association with the fired clay, but no other dating evidence was recovered.

Archive: C.M.

O.A.S.I.S ref: colchest3–244703

C.A.T. Report: 930

**Colchester, Mercury Theatre, Balkerne Gate  
(TL 99281 25157)**

*Nigel Rayner, Howard Brooks, Emma Holloway,  
Laura Pooley*

The Mercury Theatre is immediately inside and south-east of the Balkerne Gate, and in *Insula* 25a of the Roman town. Monitoring during the excavation of two boreholes (preliminary work for the Mercury Rising project) revealed Roman layers at 1.4–2.8m below current ground level in borehole 1, and at 1.2–3m in borehole 2.

Archive: C.M.  
O.A.S.I.S ref: colchest3–271366,  
C.A.T. Report: 1048

**Colchester, 51 and 53 Butt Road  
(TL 99279 24756)**

*Nigel Rayner, Stephen Benfield, Julie Curl, Mark  
Baister, Emma Holloway, Laura Pooley*

This site is close to the Butt Road Roman cemetery. A watching brief on construction of side and rear extensions identified no significant archaeological horizons, due to terracing of the site. However, there were residual finds of human arm bone and a sherd of cut amphora. The human bone was probably from a disturbed Roman burial, but the amphora is more representative of Roman domestic or industrial activity.

Archive: C.M.  
O.A.S.I.S ref: colchest3–244064  
C.A.T. Report: 969

**Colchester, Castle Park, Duncan's Gate  
(TL 99925 25559)**

*Mark Baister*

Historic building recording and test-pit evaluation was carried out on Duncan's Gate, the north-eastern gate on the circuit of Colchester's Roman town wall. The gate and its associated masonry (the *in situ* remains of the collapsed gate tower) are in a state of decay and urgently require repairs. The collapsed masonry was heavily consolidated with modern concrete and a retaining wall after the excavations in 1927–9 by Rex Hull but these repairs are themselves beginning to decay. The test-pit exposed the cut of the Roman drain passing through the gateway, although its fill is undoubtedly backfill from earlier archaeological work. The test-pit also exposed the layers that had been deposited on the site since the 1920s excavation.

Archive: C.M.  
O.A.S.I.S ref: colchest3–256198  
C.A.T. Report: 1022

**Colchester, Arena Leisure Club, Circular Road  
East (TL 997 244)**

*Mark Baister*

Phase 1a evaluation (eleven trenches prior to closure and demolition of Leisure Centre) revealed eleven Roman inhumation burials, and several Roman field boundaries and pits.

Archive: C.M.  
O.A.S.I.S ref: 210052  
C.A.T. Report: 843

**Colchester, Abbey Field, Circular Road North  
(TL 994 243)**

*Alec Wade, Robin Mathieson, Mark Baister, Emma  
Holloway, Laura Pooley*

The Abbey Field is within the *oppidum* of *Camulodunum* and on the fringes of the Roman burial grounds encircling the Roman town. An archaeological strip, map and sample exercise was carried out at B Ground Entrance Drive during a drain replacement. Two Roman features (a pit and pit/grave-cut), a post-medieval pit and several modern features were identified.

Archive: C.M.  
O.A.S.I.S ref: colchest3–248839  
C.A.T. Report: 971

**Colchester, Colchester Holiday Park, Cymbeline  
Way (TL 9670 2562)**

*Ben Holloway, Nigel Rayner, Alec Wade, Stephen  
Benfield, Lisa Gray, Emma Holloway, Laura Pooley*

The site is between the scheduled Late Iron Age and early Roman Triple Dyke and Moat Farm Dykes. Evaluation by nine trial-trenches in advance of the creation of an additional 42 caravan plots revealed Roman ditches, pits and postholes. These are probably associated with nearby settlement, as are large quantities of Roman brick/tile which may indicate a nearby structure with tiled roof and hypocaust.

Archive: C.M.  
O.A.S.I.S ref: colchest3–262635  
C.A.T. Report: 1024

**Colchester, land adjacent to 25 East Hill  
(TM 0038 2525)**

*Chris Lister, Adam Wightman*

The site is on the south side of East Hill, 195m from the site of the now-demolished East Gate. An evaluation revealed a post-medieval wall foundation made from 17th-century bricks, probably the base of a plinth for a timber-framed structure or outbuilding now missing. Five post-medieval pits and a posthole were associated with post-medieval yard and garden deposits. There was also a small quantity of residual Roman and medieval finds.

Archive: C.M.  
O.A.S.I.S ref: 221829  
C.A.T. Report: 875

**Colchester, Colchester Royal Grammar School,  
6 Lexden Road (TL 9873 2480)**

*Howard Brooks, Ben Holloway, Chris Lister, Emma  
Sanford*

The school is in an extensive Roman cemetery and at the junction of several Roman roads. A watching brief during groundworks for a teaching block and gym extension revealed two areas of gravel which can be positively identified as the Roman Gosbecks Road and the Roman London Road.

Archive: C.M.  
O.A.S.I.S ref: 208508  
C.A.T. Report: 909

**Colchester, 20–21 Middleborough  
(TL 99346 25611)**

*Robin Mathieson, Nigel Rayner, Stephen Benfield, Lisa Gray, Chris Lister, Alec Wade, Laura Pooley*

The site is in the northern suburb of the Roman and medieval town, and close to the River Colne. Evaluation in advance of the construction of a ground floor extension to the restaurant revealed Roman river silts at 2.24m deep (4.5m OD). Roman, medieval and post-medieval finds in the river silts were probably derived from centuries of dumping rubbish on the river edge.

Archive: C.M.

O.A.S.I.S ref: colchest3–263929

C.A.T. Report: 1025

**Colchester, Winnocks Almshouses, Military Road (TM 0009 2471)**

*Ben Holloway, Nigel Rayner, Alec Wade, Mark Baister, Emma Holloway, Laura Pooley*

Evaluation in advance of the construction of ten new dwellings immediately west of six Grade I listed almshouses revealed a Roman pit and possible metal surface, representing activity outside the south-east corner of the Roman walled town.

Archive: C.M.

O.A.S.I.S ref: colchest3–242853

C.A.T. Report: 936

**Colchester, Napier Road (TL 997 245)**

*Mark Baister, Robin Mathieson, Emma Holloway*

An emergency archaeological recording was carried out in a service trench on the north pavement of Napier Road, 2–3m away from the remains of the inner *cavea* wall foundation of the Roman circus. Four layers and one feature were observed in section, the feature possibly being related to the demolition and robbing of circus material during the early medieval period.

Archive: C.M.

O.A.S.I.S ref colchest3–255519

C.A.T. Report: 981

**Colchester, Colchester County High School for Girls, Norman Way (TL 9750 2486)**

*Ben Holloway, Nigel Rayner, Alec Wade, Stephen Benfield, Val Fryer, Robin Mathieson, Emma Holloway, Laura Pooley*

Previous archaeological investigations have revealed widespread Roman activity including a triple-ditched enclosure, palisade trenches and a wattle-and-daub structure, and burials. Evaluation in advance of the construction of a single-storey extension revealed a Roman ditch aligned north-east to south-west. No trace of a previously-identified triple-ditched enclosure was seen, even though it was projected to run through the evaluation trench.

Archive: C.M.

O.A.S.I.S ref: colchest3–254636

C.A.T. Report: 975

**Colchester, Sixth Form College, North Hill  
(TL 9926 2540)**

*Ben Holloway*

The site of a proposed Student Services Building lies in *Insula* 1a of the Roman walled town. Removal of a greater depth of material than had been possible by evaluation exposed Roman demolition deposits overlying Roman floors (mainly tessellated pavements), and two medieval robber trenches indicating the lines of robbed-out Roman walls. These floors and (robbed-out) wall-lines were probably part of the western side of a Roman building uncovered in 2005 (Building 211 in the numbered series of Colchester Buildings).

Archive: C.M.

O.A.S.I.S ref: 211538

C.A.T. Report: 834

**Colchester, Priory Street car-park  
(TM 0010 2505)**

*Sarah Carter, Ben Holloway, Chris Lister, Robin Mathieson, Emma Holloway, Laura Pooley*

The site is immediately south of the Roman town wall and above the projected line of the Roman town ditch. Monitoring and recording during the redevelopment and enhancement of the car park revealed (as predicted by desk-based assessment) modern layers to a depth of 0.5m below current ground level (bcgl), beneath which were post-medieval deposits (0.5–1.2m bcgl) associated with housing on this site since the 18th century, and a layer which is either the top fill of the Roman town ditch, or (more likely) a layer of post-Roman topsoil over the ditch.

Archive: C.M.

O.A.S.I.S ref: colchest3–265337

C.A.T. Report: 1045

**Colchester, 12 Roman Road (TM 00159 25360)**

*Chris Lister, Stephen Benfield, Laura Pooley*

The site is within *insula* 8 of the Roman town, and backs onto the Roman town wall (Scheduled Monument 1003772). Monitoring of groundworks for a single-storey rear extension revealed that most groundworks did not penetrate modern strata. However, in the south-eastern corner of the garden, at a depth of 1.25m was a Roman layer which may be the upper part of the Roman rampart behind the town wall.

Archive: C.M.

O.A.S.I.S ref: colchest3–249491

C.A.T. Report: 997

**Colchester, 'High Trees', St Clare Drive  
(TL 9738 2512)**

*Adam Wightman, Robin Mathieson, Nigel Rayner, Stephen Benfield, Lisa Gray, Chris Lister, Emma Holloway, Alec Wade, Adam Wightman, Pip Parmenter, Val Rigby, Laura Pooley*

The site is 60m west of Lexden Dyke, and on the northern edge of the Late Iron Age and Roman 'Lexden cemetery'. Excavation during construction of four new dwellings revealed five Roman ditches, fifteen pits, and three postholes. Finds indicate that the ditches are close to a moderately wealthy settlement.

Later (16/17th to 18th century) large quarry pits show gravel was being extracted. Building recording was carried out of a Second World War air-raid shelter.

Archive: C.M.

O.A.S.I.S ref: colchest3–241412

C.A.T. Report: 1008

**Colchester, 1 St Clare Road (TL 97515 25046)**

*Chris Lister, Robin Mathieson, Nigel Rayner, Alec Wade, Emma Holloway, Adam Wightman, Laura Pooley*

The site is close to the Lexden Tumulus (Scheduled Monument 1019967) and on the northern edge of the Roman ‘Lexden cemetery’. Monitoring during construction of side and rear extensions revealed four features: two early Roman pits, a post-medieval pit and a modern pit.

Archive: C.M.

O.A.S.I.S ref: colchest3–237649

C.A.T. Report: 959

**Colchester, 19 St Clare Road (TL 9750 2486)**

*Ben Holloway, Alec Wade, Chris Lister, Emma Holloway, Laura Pooley*

The site is close to the Lexden Tumulus and on the northern edge of the ‘Lexden cemetery’. Evaluation and excavation in advance of the construction of a new dwelling, garage and access revealed two Late Iron Age to Early Roman ditches and two Early Roman ditches.

Archive: C.M.

O.A.S.I.S refs: colchest3–250687, 256734

C.A.T. Reports: 958, 1009

**Colchester, 3 Sanders Drive (TL 9791 2509)**

*R Mathieson, S Benfield, P Parmenter*

The site is within the Late Iron Age and Roman Lexden cemetery. Monitoring during the excavation of foundations for a rear extension revealed a Roman pit and a spread of pottery and tile.

Archive: C.M.

O.A.S.I.S ref: colchest3–253765

C.A.T. Report: 1013

**Colchester, St Helena School, Sheepen Road (TL 989 258)**

*Chris Lister, Ben Holloway, Emma Holloway, Emma Sanford, Sarah Carter, Robin Mathieson, Adam Wightman, Mark Baister, Emma Holloway, Laura Pooley*

St Helena School lies on the eastern side of the nationally important Late Iron Age and Early Roman site of Sheepen, which is the northern focus of the *oppidum* of *Camulodunum*. It is also the location of two Romano-British temples. ‘Temple 2’ was a late 1st-century Romano-Celtic temple within a sacred precinct defined by an outer precinct wall (*temenos*). Four projects are reported here.

1) Evaluation on the site of the proposed pavilion revealed two Late Iron Age or Roman pits/post-holes, and a gravel surface. One of the common features of excavations and

evaluations at St Helena is the discovery of gravel surfaces, both inside and outside the Temple 2 precinct. The gravel surface found here (65m outside the precinct wall and 90m east of the nearest temple-related structure), shows that they are more extensive than had been thought.

2) A cable trench revealed the foundation of the north side of the outer precinct wall and an associated gravel surface. Significantly, the cable trench also revealed that precinct wall has a previously unsuspected external buttress, perhaps one of many.

3) Groundworks included the clearance of ground slabs and excavation of service trenches around the perimeter of the school buildings. Part of the foundation of the north side of the outer precinct wall of Temple 2 was revealed, along with patches of a gravel surface within the precinct. Trenches to the west of Temple 2 revealed two large Roman pits, probably associated with the temple complex.

4) Prior to the laying of granite slabs to mark the location of the temple, test-pits revealed Roman levels and what was probably the top of the 1930s excavations trench at 170–300mm below ground.

Archive: C.M.

O.A.S.I.S. refs: 217574, colchest3–259213

C.A.T. Reports: 835, 905, 916, 1001

**Colchester, Abbey House, St John’s Green (TL 9970 2472)**

*Donald Shimmin, Philip Crummy, Stephen Benfield*

Significant medieval and later remains were recorded during 2013–15 redevelopment. There was little or no definite evidence for Roman deposits during the watching brief, although a quantity of residual Roman finds was recovered from later contexts. Remains probably associated with St John’s Abbey included the abbey precinct wall, several other building foundations, and a lime pit. During machine-trenching in the north-eastern corner of the site, approximately seventy pieces of stone were unearthed, many of which were carved and were probably derived from abbey buildings. Among the later remains uncovered were a post-medieval well and several Victorian brick features, including a soakaway, two storage tanks, and the foundations of a greenhouse. A Second World War air-raid shelter with a connecting corridor to Abbey House was also recorded.

Archive: C.M.

O.A.S.I.S ref: colchest3–231265

C.A.T. Report: 892

**Dedham, Hallfields Farm, Manningtree Road (TM 06144 32854)**

*Ben Holloway, Howard Brooks*

This site is on the eastern edge of the built-up area of Dedham, whose historic core lies 400m to the northwest. A significant area of cropmarks lies to the north and east. Although mostly unexcavated, these include field systems and burial mounds. Limited excavation in 1960 showed that the cropmark complex includes a Late Iron Age/Roman enclosure, and a Bronze Age burial site (Blake 1960).

Evaluation identified eighteen archaeological features. These included an Iron Age ditch which may be part of the

cropmarks to the north and east. The follow-up excavation involved the stripping of two house plots. Twenty-nine features were excavated (including three which had been examined at evaluation stage)—prehistoric ditches, pits and post-holes, a Roman ditch and a large post-medieval/modern pit probably associated with gravel extraction. A possible ring-ditch was found to be a modern pit.

Archive: C.M.  
O.A.S.I.S. ref: 214216  
C.A.T. Reports: 842, 848

**Great Bentley, land at Admirals Farm, Heckfords Road (TM 11364 22161)**

*Mark Baister, Sarah Carter, Jon Dodd, Ben Holloway, Robin Mathieson, Nigel Rayner, Jane Roberts, Emma Holloway, Laura Pooley*

The site is in an area of prehistoric and later cropmarks. Evaluation by thirty-four trenches in advance of new housing revealed a medieval/post-medieval ditch and pit, fifteen undated ditches/gullies, three undated pits, and ten modern features. There were residual prehistoric flint flakes.

Archive: C.M.  
O.A.S.I.S. ref: colchest3–262677  
C.A.T. Report: 1031

**Great Chesterford, land east of Granta Cottages, Newmarket Road (TL 50446 42806)**

*Ben Holloway, Pip Parmenter*

The site lies on the southern edge of the 4th-century walled Roman town. The Roman town wall ran parallel to the present Newmarket Road beneath the present Granta Cottages and (in theory) directly through this site. Despite the positioning of trenches on the predicted wall line, evaluation prior to residential construction revealed only a modern pit and a natural feature. The wall must presumably run north of the predicted course.

Archive: S.W.M.  
C.A.T. Report: 864

**Great Chesterford, land west of Granta Cottages, Newmarket Road (TL 50390 42776)**

*Mark Baister, Robin Mathieson, Alec Wade, Stephen Benfield, Pip Parmenter, Chris Lister, Emma Holloway, Laura Pooley*

The site lies in the south-western corner of the Roman town of Great Chesterford (Scheduled Monument 1013484). Evaluation by trial-trenching west of Granta Cottages in advance of the construction of a new dwelling revealed a 2m-wide robber trench, aligned south-west to north-east. As the robber trench is on the same alignment as a wall foundation identified in 2013 at No 4 Granta Cottages, this is probably the robber trench of the 4th-century Roman town wall. Three Roman pits, two undated pits and an undated ditch were also excavated.

Archive: S.W.M.  
O.A.S.I.S. ref: colchest3–255216  
C.A.T. Report: 988

**Great Easton, Peters Field, The Endway (TL 60980 25437)**

*Mark Baister, Ben Holloway, Alec Wade, Stephen Benfield, Lisa Gray, Emma Holloway, Laura Pooley*

The site is 30m west of a 2011 excavation site which revealed the south-eastern side of a Late Iron Age–Roman enclosure, probably surrounding a rural farmstead, with an external track or driveway (Wightman 2012).

Evaluation (extended trial-trench) in advance of the construction of a replacement dwelling and garage revealed Late Iron Age and Roman pits, postholes and a ditch, all probably associated with the nearby farmstead. A post-Roman ditch might be related to the medieval motte and bailey castle, medieval farmstead and/or the 15th to 16th-century Easton Hall all located 70–90m to the west/south-west.

Archive: S.W.M.  
O.A.S.I.S. ref: colchest3–267073  
C.A.T. Report: 1047

**Harlow, former Swallow Churchgate Hotel, Churchgate Street (TL 4844 1130)**

*Ben Holloway, Nigel Rayner, Alec Wade, Stephen Benfield, Adam Wightman, Emma Holloway, Chris Lister, Laura Pooley*

Evaluation in advance of the construction of eight new dwellings revealed three late prehistoric ditches and a cluster of late medieval/post-medieval features in the north-western corner of the site.

Archive: H.M.  
O.A.S.I.S. ref: colchest3–248148  
C.A.T. Report: 954

**Ingatestone, rear of 23 High Street (TQ 6512 9963)**

*Ben Holloway, Felix Whymark*

The site lies within medieval Ingatestone and close to the Church of St Edmund and St Mary. An evaluation revealed four post-medieval/modern wall foundations, a gravel surface and a pit. They are likely to be part of an earlier building fronting Stock Lane.

Archive: Ch.E.M.  
O.A.S.I.S. ref: 227941  
C.A.T. Report 886

**Kelvedon, St Mary's Primary School, Docwra Road (TL 86446 18857)**

*Ben Holloway, Sarah Carter, John Dodd, Robin Mathieson, Callum Platts, Nigel Rayner, Alec Wade, Bethany Watson, Emma Holloway, Laura Pooley*

Excavation in advance of new school buildings revealed a Roman-period round-house in the form of a ring-ditch with a causeway on the east side and post holes around the inside. The ditch contained two Roman coins and five fragments of a large and unusual Roman pottery vessel with barbotine (applied) decoration. The coins date the ditch and hence the building to the late 3rd century or later.

Archive: Bt.M.  
O.A.S.I.S. ref: colchest3–256817  
C.A.T. Report: 1007

**Laindon, land south of 70 Victoria Road (TQ 67553 89070)**

*Ben Holloway, Robin Mathieson, Alec Wade, Stephen Benfield, Emma Holloway, Pip Parmenter, Laura Pooley*

The site was partially on the northern edge of the medieval moated enclosure of Great Gubbins Farm. In advance of the construction of four new dwellings, a trial trench was positioned over the projected line of the moat and, despite a lot of modern disturbance, it revealed the moat surviving to a depth of at least 1.6m. Historic mapping shows that the moat was only partially filled with water by the late 19th century with the remaining earthwork visible until c.1940. Dating evidence from the moat confirms that the earthwork was being gradually filled during these decades with most of the backfilling occurring during the early 20th century. There were no medieval finds in the moat.

Archive: S.M.  
O.A.S.I.S ref: colchest3-247799  
C.A.T. Report: 984

**Maldon, 9 London Road (TL 84757 07013)**

*Steve Benfield, Chris Lister, Emma Holloway, Laura Pooley*

The site is within the 10th-century Saxon burh, and the burh ditch is thought to run along the length of the property. Monitoring during construction of a rear extension revealed patches of compacted dirty gravel, possibly forming a metalled yard or street surface, cut by three post-medieval pits. There was no trace of the burh ditch.

Archive C.M.  
O.A.S.I.S ref: colchest3-258009  
C.A.T. Report: 993

**Langford, land east of Langford Lee, Maldon Road (TL 8401 0895)**

*Ben Holloway*

This site, an open paddock on the northern side of Maldon Road, is southwest of an area of prehistoric and Roman-period cropmarks (burial sites, enclosures, field boundaries and trackways). Evaluation and a subsequent excavation in advance of residential development revealed multi-period remains including a Neolithic ditch and post-hole, a Roman ditch, nine medieval pits and ditches, and a modern field ditch. Of particular interest was an assemblage of Middle Neolithic Peterborough Ware, associated with a ditch and post-hole. This may be from a disturbed burial. However, given the quantity of residual finds on this site, it is possible that the Neolithic sherds are residual in a later (medieval?) context.

Archive: C.M.  
O.A.S.I.S. ref: 208514  
C.A.T. Report: 833

**Lawford, Dale Hall Farm (TQ 093314)**

*Nigel Rayner, Pip Parmenter*

In advance of residential and commercial construction, preliminary evaluation and then excavation (Areas A, B, C) on this cropmark site revealed Late Iron Age/Early Roman field

boundaries, trackways and enclosures. Area A also revealed a late 3rd- to 4th-century Roman kiln and associated kiln debris. Area B contained an enclosed Early or mid-Roman cemetery of eight cremations and at least one inhumation.

Archive: C.M.  
O.A.S.I.S. ref: 268002  
C.A.T. Report 847

**Maldon, Ship and Anchor, High Street (TL 8552 0678)**

*Ben Holloway*

Evaluation in Maldon's historic core revealed a medieval pit and four post-medieval/modern pits. The medieval pit indicates an earlier origin for the site now occupied by the 15th/16th-century public house, and the later pits are probably associated with the dumping of domestic waste to the rear of the property.

Archive: C.M.  
O.A.S.I.S. ref: 219373  
C.A.T. Report: 863

**Newport, land south of Wyndhams Croft, Whiteditch Lane (TL 5180 3452)**

*Mark Baister, Robin Mathieson, Felix Whymark, Alec Wade.*

The proposed development lies just outside the limits of medieval Newport, and a castle was thought to be located immediately to the southeast. An evaluation revealed two field boundary ditches, one Roman (running east-west), the other undated.

Archive: S.W.M.  
C.A.T. Report: 899

**Sible Hedingham, Sugar Loaves, 175 Swan Street (TL 7796 3450)**

*Mark Baister*

Two trenches were excavated within the footprint of proposed new buildings behind the former Sugar Loaves public house. Post-medieval features included a pit, a ditch, and the burial of a pig. Of interest was the discovery of an inverted pot complete with animal bones from several species, dating from the mid-15th to the mid-16th century.

Archive: Bt.M.  
O.A.S.I.S. ref: 210240  
C.A.T. Report: 839

**Stanway, Fiveways Fruit Farm, Dyer's Road (TL 958 231)**

*Adam Wightman, Nigel Rayner, Sarah Carter, Ben Holloway, Jane Roberts, Alec Wade, Emma Holloway, Laura Pooley*

The site is in an important archaeological area, close to the western edge of the late Iron Age *oppidum* of *Camulodunum* and the Gosbecks small Roman town and cropmarks complex. A 2008 evaluation in advance of a 15.5ha extension of the current 77ha quarry (Holloway and Brooks, 2009) identified significant Middle Iron Age and Roman features in the south-east part of the site—the area excavated in 2015 and reported here.



Over a thousand features were excavated. Neolithic to early Iron Age flints and pottery were found principally in ‘tree-throws’ or natural features, but the most significant remains were Middle Iron Age. Three Middle Iron Age ditched enclosures were wholly or partially excavated in 2015. Two of them were rectangular, approximately 50m × 50m, and the third 30m × 20m and oval shaped. Both rectangular enclosures contained a timber round-house and pit clusters, and are therefore probably domestic enclosures. The oval enclosure, lacking any obvious structures, may have been an animal pen. The entrance to the northern rectangular enclosure was flanked by a substantial ditch, perhaps indicating a defensive role.

However, the principal importance of the 2015 site is its obvious connection with the elite Stanway burial site, excavated in the 1990s, which is only 300m to the south (Crummy, *et al.* 2007). The three 2015 enclosures were connected on their eastern edges by a continuous ditch which heads towards the five enclosures excavated in the 1990s. Regrettably this cannot ever be proven by excavation, since the intervening land is now lost, but the 2015 ditch may have linked with a spur ditch running north off Enclosure 2 of the 1990s site. If this were the case, then there are at least five sites here linked in a way now described as a ‘washing-line’ configuration. Finally, the 2015 enclosures are the same Middle Iron Age date as the 1990s Enclosure 2, but all seem to have been out of use (and their ditches silting up) when the elite burial sites (Enclosures 1, 3–5) were established 350m to the south in the later 1st century BC and early 1st century AD.

Later evaluation on the field immediately to the north of the 2015 excavation area revealed only one prehistoric pit, and an undated ditch and pit. This indicates that the concentration of Iron Age and Roman activity identified nearby in 2015 does not substantially continue to the north.

Archive: C.M.

O.A.S.I.S ref: colchest3–267233

C. A.T. Reports: 1042, 1070

### **Thaxted, land north of Orange Street (TL 61329 30879)**

*Adam Wightman Laura Pooley, Pip Parmenter*

The site is located within a highly archaeologically sensitive area of the medieval town, immediately north of Middle Row, an infilled market place with many cutlers’ premises. Evaluation and excavation in advance of the construction of six new dwellings revealed fourteen medieval small pits, and a property boundary ditch at a right angle to Orange Street. Post-medieval features included a large number of rubbish pits, seven clay quarry pits (secondary use as rubbish pits) and three ditches (also probably property boundaries). All the features contained quantities of medieval/post-medieval domestic and cutlery waste, and the site appears to have been used primarily as a rubbish dump, probably for the market at Middle Row. Cutlery waste included a large amount of worked-bone and broken bone handles, iron-working waste, iron blade fragments and copper-alloy scrap including sheets and rivets. Both whittle-tang and scale-tang knife blades and handles were being produced locally, probably on Middle Row. Cow metapodia were by far the most common materials used in the production of handles with at least two different styles

of whittle-tang handle and seven different styles of bone-scale handle identified from at least two different workshops.

Archive: S.W.M.

O.A.S.I.S. ref: 243748

C.A.T. Report: 810

### **Walton-on-the-Naze, former Martello caravan park, Kirby Road (TM 24940 22155)**

*Sarah Carter, Ben Holloway, Robin Mathieson, Callum Platts, Nigel Rayner, Jane Roberts, Alec Wade, Stephen Benfield, Adam Wightman, Val Fryer Emma Holloway, Chris Lister, Laura Pooley*

Following an evaluation by Archaeology South-East (Ennis 2016), six trial trenches in advance of the construction of a medical centre and pharmacy revealed remains dating to the prehistoric and medieval periods. The main concentration was in the west of the site where eight pit-like features were investigated, four with small amounts of possible Bronze Age pottery. The pits may be part of a structure or area of activity that extends beyond the trench limits. Also in the same trench was a medieval or later pit or ditch.

Later excavation uncovered thirty Late Bronze Age pits/irregular features, four ditches, and six post-holes. There were also two Roman pits and five medieval pits.

Archive: C.M.

O.A.S.I.S ref: colchest3–252243 colchest3–244675

C.A.T. Report: 9271015

### **Weeley, land at St Andrew’s Road (TM 14930 22120)**

*Ben Holloway, Robin Mathieson, Nigel Rayner, Alec Wade, Mark Baister, Adam Wightman, Peter Allen, Stephen Benfield, Emma Holloway Laura Pooley*

In advance of the construction of fourteen new dwellings, trial-trenching evaluation revealed a Late Iron Age/Early Roman period pit, Late Roman field-boundary ditches, a post-medieval field boundary and modern features. A geo-archaeological investigation found no evidence that the local gravelly beds were likely to yield humanly-worked archaeological material. None of the beds yielded any macro-bioenvironmental material (shells, bones, peats) and were not thought likely to have microfossils.

Archive: C.M.

O.A.S.I.S ref: colchest3–252243

C.A.T. Report: 982

### **West Mersea, Mersea Barrow, Barrow Hill Farm East Mersea Road (TM 0228 1434)**

*Donald Shimmin*

Archaeological watching briefs took place in 2014 and 2016 during works to improve visitor access and amenities. No significant archaeological deposits were uncovered, although a small quantity of Roman roof tile fragments was recovered from the modern topsoil on the eastern side of the barrow. The form of the *tegulae* lends support to a recent redating of the burial and the barrow to the mid-2nd century (Benfield and

Black 2013), rather than the later 1st century as put forward by Warren following the 1912 excavation.

Archive: C.M.  
O.A.S.I.S ref: colchest3-255977  
C.A.T. Report: 992

**Witham, 32 Albert Road (TL 82036 15387)**

*Chris Lister, Felix Whymark*

The site lies within Chipping Hill Camp, an Iron Age hillfort refortified in the Anglo-Saxon period. An evaluation revealed five Iron Age features (four pits and a post-hole). They probably represent small-scale domestic activity on the periphery of the hillfort.

Archive: Bt.M.  
O.A.S.I.S. ref: 228193  
C.A.T. Report: 890

**Wivenhoe, University of Essex, Wivenhoe Park (TM 02199 24115)**

*Ben Holloway, Stephen Benfield, Lisa Gray, Robin Mathieson, Emma Holloway, Laura Pooley*

Record during soil strip for the Parkside office development revealed a Roman pit with residual Late Iron Age/Early Roman pottery.

Archive: C.M.  
O.A.S.I.S ref: colchest3-255917  
C.A.T. Report: 974

**Wivenhoe, University of Essex Innovation Centre, off Nesfield Road (TM 02593 24219).**

*B. Holloway, M. Baister*

Evaluation followed by excavation of the 1.8ha site of the proposed Innovation Centre revealed field-boundary ditches, pits and post holes dating to the early/mid 13th-mid 14th century. These finds suggest the existence of a small medieval farmstead in close proximity.

Archive: C.M.  
O.A.S.I.S ref: colchest3-254040  
C.A.T. Reports 918, 998

**Writtle, Writtle Mill, Chelmsford Road (TL 6867 06110)**

*Ben Holloway, Robin Mathieson, Alec Wade*

Evaluation was carried out prior to the construction of a new dwelling on the site of Writtle watermill, which was built c.1870 and demolished c.2000. The watermill was a rectangular brick-and-tile building, built as an overshot corn mill. Evaluation revealed two of the external mill walls, the foundations for a raised ground floor, a machinery inspection pit, the pit for the pit-wheel, and the silted-up millstream.

Archive: Ch.E.M.  
O.A.S.I.S ref: colchest3-252033  
C.A.T. Report 964

**MUSEUM OF LONDON ARCHAEOLOGY**

Compiled by Karen Thomas

**Barking and Dagenham**

**52 Abbey Road, Barking IG11 7BT (TQ 44069 83534)**

*Danny Harrison, Tony Mackinder*

A watching brief for contamination samples in August was followed by an evaluation of two trenches in September. Truncated natural water-lain clay was seen but no archaeological deposits appear to have survived previous redevelopments of the site.

Archive: Currently with M.o.L.A.  
O.A.S.I.S. Ref: 264534  
Site Code: ARB16

**Wellington Drive, Dagenham, Essex, RM10, London, (TQ 50340 84130)**

*Tony Baxter*

Following evaluation and excavation in 2015, a final phase of works excavated underneath the previous road in November revealed further sporadic pits and/or post holes cut into the natural sands and gravels in the east of the site, pointing to some settlement activity during the later prehistoric period possibly contemporary with several other known sites around the confluence of the Wantz stream and River Beam.

Archive: Currently with M.o.L.A.  
O.A.S.I.S. Ref: 293930  
Site Code: WNG15

**Newham**

**Duncan House, High Street, Stratford, E15 2JB (TQ 38595 83985)**

*Robert Hartle*

One evaluation trench investigated in November found archaeologically sterile alluvial clay overlain by clay deposits containing discarded waste cattle horn cores which may represent dumping on the Lea Valley marshland during the 16th to 17th century. These deposits were cut by a large rubbish pit, dated around the late 18th to 19th century, and sealed by extensive dumping of the same period, probably associated with the development of the Channelsea river frontage.

Archive: Currently with M.o.L.A.  
O.A.S.I.S. Ref: 279744  
Site Code: DCN16

**Royal Albert Docks, Royal Albert Way, E16 2QU (TQ 42514 80804)**

*Tony Mackinder, Paul Thrane, Graham Spurr, Paul McGarrity, Anna Nicola*

A series of thirteen geo-archaeological boreholes undertaken in the summer across the site, showed the floodplain of the Thames with gravels topped by peat lying under historic alluvial deposits, which in turn are buried beneath deep sequences of made ground partly consisting of disturbed alluvial deposits. During a watching brief in October and November the only

features found on site dated to the 20th century—limited structural remains of dock sheds in the south-west, including concrete foundation pads for cast iron pillars, disused drains towards the centre of the site; and, nearby enabling works uncovered a group of four air raid shelters constructed with pre-fabricated concrete sections and accessed via concrete stairs down to rooms at one end of each shelter. Elsewhere a number of brick walls were found that may be a room at the end of another shelter— a Port of London drawing indicated a total of nine air raid shelters scattered across the site.

An Historic England Level 1 photographic survey of the hard standing, rails and raised bases for the warehouses which previously stood on the site of the Royal Albert Docks was carried out in December 2016. Several heritage assets were recorded including bollards, railway points and the tracks for the dockside cranes.

Archive: Currently with M.o.L.A.

O.A.S.I.S. Ref: 259385 (geo-archaeology), 271585 (building recording)

Site Code: RAB15

#### **14 Shirley Street, Canning Town, E16 1HU (TQ 39705 81246)**

*Stella Bickelmann*

An evaluation during May 2016 monitored three terrier-rig boreholes drilled by Geosphere Environmental Ltd through the alluvium. A geo-archaeological deposit model showed the site to be within the active channel zone of the low-lying Lea-Thames floodplain, and an assessment focusing on the central borehole followed. The core was subsampled for analysis by pollen, ostracod and botanical specialists. In combination with inferences made from the sediments, alluvial silts and clays (between +1.9 and -3.7m OD), the habitat preferences of the ecofacts indicate that tidal mudflats existed on the site, fringed with saltmarsh. These were deposited from the medieval period onwards, earlier sediments having been scoured away by the river. The evidence fits in well with a documented intensification of storms and flooding during the medieval period. The presence of cultivars (cereals and hemp or hop) and damp grassland soils within the upper horizons of the alluvium indicate the area was managed for agricultural purposes.

The watching brief from October to November monitored ground reductions by machine in the main area of the site and included deeper excavations in the areas of two pile caps and a lift pit. The only archaeological deposits recorded were a sequence of alluvial deposits which confirmed the site's location within the River Lea-Thames floodplain.

Archive: Currently with M.o.L.A.

O.A.S.I.S. Ref: 257867

Site Code: SHY16

#### **Waltham Forest**

#### **Jenny Hammond Primary School, Worsley Road, Leyton, E11 (TQ 39340 85885)**

*Will Clarke*

Alongside an evaluation in 2015, a watching brief was carried out across the site between September 2015 and July 2016. The surface of the Hackney Terrace Gravel was exposed, sloping

north to south, and was overlain by undated subsoil. A series of brick and concrete foundations observed in the southern area are thought to be related to the girls and infants school that can be seen on the Ordnance Survey Map of 1895. In the central area, an east-west aligned brick and concrete foundation may be related to the now demolished dining block to the south of the existing main school block that was constructed sometime after 1916. Further remains of a 1940 underground communal air-raid shelter (Gilman 2015) were also recorded.

#### **OXFORD ARCHAEOLOGY EAST**

Compiled by Katherine Hamilton

#### **Boreham, Bull's Lodge 400kV Substation (TL 75080 10540)**

*A. Haskins*

An evaluation of six linear trenches recovered no archaeological features, deposits or artefacts.

Archive: Ch.E.M.

Report: O.A.E. Report 2003

#### **Chelmsford, Network Rail Feeder station, Beaulieu Park (TL 7475 1003)**

*Helen Stocks-Morgan*

The evaluation sought to confirm the presence or absence of archaeological remains within the site, including former Victorian railway workers' cottages, in order to assess the preservation. During the evaluation demolition layers associated with these buildings were encountered, though little evidence was present for a surviving structure. Possible garden features were present to the north of the building. A small palaeochannel of the Boreham Brook was recorded to the west of the site.

Archive: Ch.E.M.

Report: O.A.E. Report 1950

#### **Chelmsford, Zone C, Beaulieu Park (TL 7242 1018)**

*Helen Stocks-Morgan*

An archaeological evaluation was carried out in the vicinity of the medieval manor of Belstead Farm. Three ditches were found that may represent either drainage or boundary ditches. One was likely of medieval date and the others of probable post-medieval date. Due to the presence of underground cables, a trench that targeted the location of the moat which surrounded the medieval manor could not be fully excavated. Consequently, the moat's position and character remained unverified.

Archive: Ch.E.M.

Report: O.A.E. Report 1977

#### **Chelmsford, Zone E, Beaulieu Park (TL 7307 1013)**

*Helen Stocks-Morgan*

Evaluation found evidence for Late Iron Age settlement comprising curvilinear gullies belonging to a possible roundhouse. An east to west aligned field system and pits

thought to be associated with a pit alignment recorded in excavations immediately to the north-west probably date to the late medieval period. These features are likely to be evidence of the managed landscape associated with the Tudor palace and deer park. Other features associated with this phase of activity include a lime kiln that may have been used to provide lime for use in construction of structures associated with the palace.

Archive: Ch.E.M.  
Report: O.A.E. Report 1978

**Chelmsford, Zone K, Beaulieu Park  
(TL 7222 1045)**

*Helen Stocks-Morgan.*

Evaluation uncovered early medieval activity in the eastern side of the development area, in the form of a ditch containing a large medieval pottery assemblage and other finds indicative of domestic occupation. A further field system, putatively medieval in date, was evident represented by two ditches on a north-west to south-east alignment.

Archive: Ch.E.M.  
Report: O.A.E. Report 1979

**Chelmsford, Zone L, Beaulieu Park  
(TL 7247 1047)**

*H. Stocks-Morgan*

Evaluation encountered one undated ditch on a north-west to south-east alignment in the south-eastern part of the development area. This ditch is on the same alignment as other ditches revealed by archaeological works across the wider development area and is thought to be part of a co-axial fields system of medieval date. Two other ditches are likely to be the remnants of ridge and furrow.

Archive: Ch.E.M.  
Report: O.A.E. Report 1980

**Chelmsford, Radial Distributor Route (RDR),  
Beaulieu Park (TL 7401 1039)**

*Helen Stocks-Morgan*

During evaluation, in the centre of the RDR and immediately south of known Tudor brick kilns, a gravel surface, two pits and a gully was encountered. These features were interpreted to be part of a working area associated with the kilns. Evidence for a medieval field system on a north-west to south-east co-axial alignment was seen in the southern part of the RDR. Within the same field two undated ditches were encountered on a north-east to south-west alignment, thought to form a possible trackway. In the southernmost field a series of ditches were recorded, all of which are post-medieval or modern in date.

Archive: Ch.E.M.  
Report: O.A.E. Report 1981

**Chelmsford, Site 3, Beaulieu Park  
(TL 7405 1034)**

*Helen Stocks-Morgan*

Excavation was carried out on four Tudor brick kilns at Beaulieu, Chelmsford. Historical records suggest that all four

of the brick kilns were used for the construction/renovation of Beaulieu Palace undertaken by Henry VIII. These brick clamps were well preserved with evidence of the central chamber and flue structure surviving. One of the brick kilns was smaller and thought to be for making specialist bricks, such as finistrals. An earlier medieval enclosure was evident within the excavation area and may form the southern extent of the Bulls Lodge settlement.

Archive: Ch.E.M.  
Report: O.A.E. Report 2013

**Chelmsford, Zone E, Beaulieu Park  
(TL7307 1008)**

*Helen. Stocks-Morgan*

In August Oxford Archaeology East carried out a strip, map and record at Beaulieu, Chelmsford. This excavation recorded the eastern extent of a Late Iron Age/Early Roman enclosed settlement previously excavated in 2014 (Site 8/Zone E). During the excavation, a Tudor lime kiln was excavated which would have been for making mortar during the renovation/construction of Beaulieu palace. The excavation also detailed the full extent of a series of early post-medieval pits, previously seen during the Site 8 excavations. These pits were laid out in rows aligned east to west immediately north-west of the palace building. It is currently unclear why these pits were dug, with the most likely explanation being either plinths for statues, forming part of a formal garden, or the foundations for part of a temporary stand.

Archive: Ch.E.M.  
Report: O.A.E. Report 2014

**Coggeshall, Highfields Farm (TL 8427 2281)**

*S. Ladd.*

Evaluation was undertaken at Land north of West Street, Coggeshall. The south of the site is bounded by West Street, on the line of Stane Street Roman Road. The earliest activity encountered was in the form of a prehistoric pit containing possibly Late Bronze Age pottery and fragments of an Early Iron Age vessel within a natural feature, potentially a stream bed or spring head. Residual Roman activity was indicated by a single rim sherd from the same natural feature and possible Roman bricks and tiles in features at both at the eastern and southern edges of the site.

Earlier medieval sherds were recovered from ditches and pits in a trench at the eastern edge of the site, close to Robin's Brook and residually in deposits close to West Street. A 13th-century silver penny was recovered from a later context. Later medieval activity was evidenced in pits and possible ditches close to West Street, potentially obscured by the denser 16th-century activity.

A number of 16th-century pits of varying sizes were found with a possible plot boundary ditch. An interesting assemblage of bird (fowl) bones was recorded, predominantly 'waste' after processing. The presence of turkey bones gives a post-1541 date for some of these features, and, mixed with duck, chicken and goose bones (the non-meat-bearing remnant legs and skulls) along with chafing dishes, point to some specialised food preparation and cooking activities, possibly on a commercial basis. These features most likely represent activity of a house

fronting onto West Street several metres to the south. Similar discoveries were made at previous excavations across the road at The Vineyard site.

Larger areas on the southern slopes of the site were truncated by activity in the 18th or 19th century. A house and garden depicted on 19th-century maps in the south-east of site were evidently thoroughly demolished, resulting in a large quantity of ceramic building materials being present. At the north of the site, large areas of truncation were caused by clay extraction for the brick works there in the 19th century. An unusual field drain filled with horn-cores was found, no doubt deriving from the tannery that operated c.200m to the west at the time (shown on the 1875 OS map). Modern backfilled field boundaries were recorded across the north of the site.

Report: O.A.E. Report 1937

### **Debden, Land west of Chickney Road (TL 5635 3006)**

*N. Cox*

An archaeological evaluation consisting of two trial trenches produced no archaeological features or deposits.

Archive: E.F.D.M.

Report: O.A.E. Report 1990

### **Fordham, Mill Road (TL 92665 28247)**

*S. Birnie.*

Monitoring was undertaken during work being carried out by Anglian Water comprising the installation of sixteen metres of water pipe within a narrow-cut trench. No archaeological features or artefacts were found, with only modern topsoil and natural deposits being encountered.

Archive: C.M.

Report: O.A.E. Report 1999

### **Great Bardfield, Bushett Farm (TL 67288 28355)**

*J. Fairbairn*

Evaluation on the site of a former manor house revealed foundations relating to the 16th, 18th and 20th-century phases of the building. These were recorded along with evidence of a medieval ditch, post hole and various occupation layers.

Archive: Bt.M.

Report: O.A.E. Report 1910

### **Great Chesterford, Land at Thorpe Lea, Walden Road (TL 5127 4278)**

*M. Webster*

Evaluation to the south-east of the Roman town of Great Chesterford revealed a series of ditches on a similar north-west to south-east alignment dating from the mid to Late Roman period. The majority of features were located towards the south-western corner of the site and may represent boundary or possibly road-side ditches. A further shallow ditch or gully on a similar alignment was towards the centre of the site and is notable as it contained a moderately large quantity of animal bone.

Archive: S.W.M.

Report: O.A.E. Report 1954

### **Harlow, Latton Farm (TL 4654 0948)**

*M. Webster*

Evaluation uncovered several pits and a possible pond containing Early Iron Age pottery as well as the remains of a cremation from the same period. The late medieval to post-Medieval is represented by a possible fire pit or oven associated with a ditch and gravel surface and two large boundary ditches, one of which formed the continuation of a boundary shown on the 1st Edition OS map.

Archive: H.M.

Report: O.A.E. Report 1892

### **Harlow, Gilden Way (TL 4815 1225)**

*N. Gilmour*

Fieldwalking on this site identified a scatter of struck flint and a spread of Roman ceramic building material, probably related to an adjacent, scheduled Roman building. *Ad hoc* monitoring of geotechnical test pits was also undertaken. This uncovered no further archaeological deposits.

Archive: H.M.

Report: O.A.E. Report 1893

### **Kelvedon, Land at Church Road and Thorne Road (TL 860 188)**

*A. Haskins*

An archaeological evaluation was conducted on land to the south and north of Church Road and land to the east and west of Thorne Road. To the south of Church Road, a small gully or ditch containing a single residual Bronze Age or Iron Age struck flint and a probable tree throw containing Iron Age pottery were uncovered along with a possible palaeo-channel. Only modern features were revealed to the north of Church Road including a large pit that had been backfilled with demolition material from 19th-century buildings along with pottery and bottles dating to the 1930s. No archaeological features or deposits were found to the east of Thorne Road, and only modern features were found in the trenches to the west of Thorne Road.

Archive: Bt.M.

Report: O.A.E. Report 2022

### **Little Waltham, Channels Golf Club, Belstead Lane (TL 723 109)**

*S. Morgan.*

During evaluation evidence of prehistoric activity was recorded in the form of two Late Bronze Age pits and several Iron Age ditches in the northern part of the site. It is likely that the latter of these are the remains of field boundaries. The results from the southern part of the site demonstrated that activity continued into the Early Roman period with a trackway and ditch being uncovered. Early Roman pits were also found in this part of the site. During the medieval period an enclosure system was established in the northern part of the site fronting onto the lane to the east.

Archive: Ch.E.M.

Report: O.A.E. Report 1922

**Waltham Abbey, Knollys Nursery, Pick Hill  
(TL 4028 0133)**

*S. Graham*

Evaluation uncovered a series of shallow ditches and pits containing medieval pottery and residual Roman ceramic building materials in the south-east corner of the site on the crest of a hill. These ditches probably represent medieval fields, possibly related to a medieval moated site located at Pick Hill Farm directly to the south-east of the site.

Archive: E.F.D.M.

Report: O.A.E. Report 1931

**ABBREVIATIONS**

- A.S.E. Archaeology South-East  
Bt.M. Braintree Museum  
C.M. Colchester and Ipswich Museums  
Ch.E.M. Chelmsford and Essex Museum  
E.F.D.M. Epping Forest District Museum  
H.M. Harlow Museum  
M.o.L.A. Museum of London Archaeology  
O.A.E. Oxford Archaeology East  
O.A.S.I.S. Online Access to the Index of Archaeological Investigations  
S.M. Southend Museum  
S.W.M. Saffron Walden Museum

**BIBLIOGRAPHY**

- Benfield, S. and Black, E. 2013, 'The West Mersea Roman Barrow (Mersea Mount)', *Essex Archaeol. Hist.*, 4th Ser., 4, 59–73
- Blake, B. 1960, 'Excavation of a Bronze Age barrow at Dedham, Essex', *Essex Archaeol. Trans.* 25 (3), 344–357
- Crummy, P., Benfield, S., Crummy, N., Rigby, V., and Shimmin, D. 2007, *Stanway: An Elite Burial Site at Camulodunum*, Society for the Promotion of Roman Studies Monogr. 24
- Ennis, T. 2016, *Archaeological Evaluation, Martello Caravan Park, Walton on the Naze*, Archaeology South East unpubl. report
- Gilman, P. 2015, 'Archaeological Fieldwork Summaries 2015', *Essex Archaeol. Hist.*, 4th Ser., 6, 366–377
- Green, M. and Reeds, G., 2016, *Braintree PZ Supply Demand Balance: Bocking to Braintree, Essex Archaeological Strip, Map and Monitoring*, Oxford Archaeology East unpubl. report
- Holloway, B. and Brooks, H. 2009, *An archaeological evaluation at Fiveways Fruit Farm, Dyer's Road, Stanway, Essex. September–October 2008*, CAT unpubl. report 493. Available: <<http://cat.essex.ac.uk/reports/CAT-report-0493.pdf>> (accessed 8 October 2017)
- Wightman, A. 2012, *Report on an archaeological evaluation and excavation on the site of the former G.S Brown's garage, Dunmow Road, Great Easton, Essex May 2011*, CAT unpubl. report 608. Available: <<http://cat.essex.ac.uk/reports/CAT-report-0608.pdf>> (accessed 8 October 2017)



# Historic Buildings in Essex

## Essex Historic Buildings Group

Edited by David Andrews

This round-up comprises studies of historic buildings recorded in the course of development control work within the planning system, or else occasioned by restoration work. It includes three rather unusual buildings which are familiar landmarks in Swan Street, the main road through Sible Hedingham.

### ESSEX TREE-RING DATES (Table 1)

The run of dates for Colchester was commissioned as part of a project on the town's historic buildings sponsored by Colchester Borough Council. The date for the Red Lion is of particular interest, revealing that it was built in a single construction programme, not in several phases over a period of time as previously thought. More information on these dates can be found in the lists published in the journal *Vernacular Architecture*.

### THE KING'S HEAD, BRADWELL-ON-SEA: THE MEDIEVAL CROSS-WING AND ITS RESTORATION

Tim Howson

Following a fire in November 2014, part of the King's Head, Bradwell-on-Sea, was discovered to be much older than previously thought. The fire revealed a substantial timber-framed cross-wing, dating from c.1500. The building is not on the statutory list of buildings of special architectural or historic interest, but the new owner, Richard King, was inspired to undertake a careful restoration of what could be salvaged (Fig. 1). The reconstruction provided a valuable opportunity to study the building's fabric in detail, and the findings of the building recording informed the restoration.

Bradwell-on-Sea is a parish of about 5,000 acres on the eastern coast of Essex. Throughout the medieval period it was a relatively small rural community involved in mixed farming. The central village of Bradwell-on-Sea falls within the manor of Bradwell Hall. Its focus is the 14th-century church of St Thomas which is sited on the north-east corner of the junction between the village's two main streets: High Street and East End Road (Fig. 2). The six medieval timber-framed buildings which survive in the central hamlet include Bradwell Lodge, New Hall, White Lyons and Nos 9 and 11 High Street.<sup>1</sup> In 1283 the manorial lord John de la Mare was granted a weekly market and a fair to be held at his manor.<sup>2</sup> Local historian Kevin Bruce has conjectured that the grant of the market may have coincided with the establishment of the church, New Hall and the nucleus of houses in the hamlet as a planned settlement. Although the precise position of the market is not known, it is likely to have been at the junction of High Street and East End Road, in which case the King's Head would have faced directly onto it. The earliest known documentary references to the King's Head are from late in the 17th century, when it was known as the 'Three Connys'.<sup>3</sup>

What emerged from the ashes of the 2014 fire was a fascinating and fairly complete picture of a large, high-end cross-wing (Figs 3–4). It has three bays and a jetty to its front (east) elevation. Its crown-post roof was gabled to the front and hipped to the rear. Evidence remained for five original windows, all of which were unglazed and had diamond-section mullions and horizontally-sliding internal shutters. Mortices in the northern flank of the cross-wing showed that

BUILDING	DATE	NOTES
Coggeshall Abbey Abbot's Lodging inserted floor	1488	A. Arnold and R. Howard, <i>The Abbot's Lodging and Corridor, Coggeshall Abbey, Essex</i> , Historic England Research Report Series no. 27–2015. Timbers may have been felled over a period of time Oxford Dendrochronology Laboratory
Coggeshall Abbey Abbot's Lodging roof	1539–64, 1569–91, ?c. 1571	
Coggeshall Abbey Abbot's Lodging corridor roof	1549 1567–92	
Colchester, 3 West Stockwell Street	1429/30	Oxford Dendrochronology Laboratory Report 2016/23 Tree Ring Services See this volume, 257–61
Colchester, Red Lion	1475/6	
Colchester, Head Street, Rebow House	1371–1400	
Colchester High Street, The George	1396	
Colchester, 7 Trinity Street,	1396–1428	
High Laver, Fenners Farmhouse	1595/6	
Liston, Park Farm Barn	1465	
Navestock Hall Granary	1493/4	Aisled hall. Bayesian estimate 1356–75
Sible Hedingham, The Swan	South cross-wing 1426 North cross-wing 1546 Hall 1547–79	
Tollesbury, Bouchiers Hall	1348–78	

TABLE 1: Tree-ring dates obtained in Essex over the last three years



FIGURE 1: The King's Head in April 2017

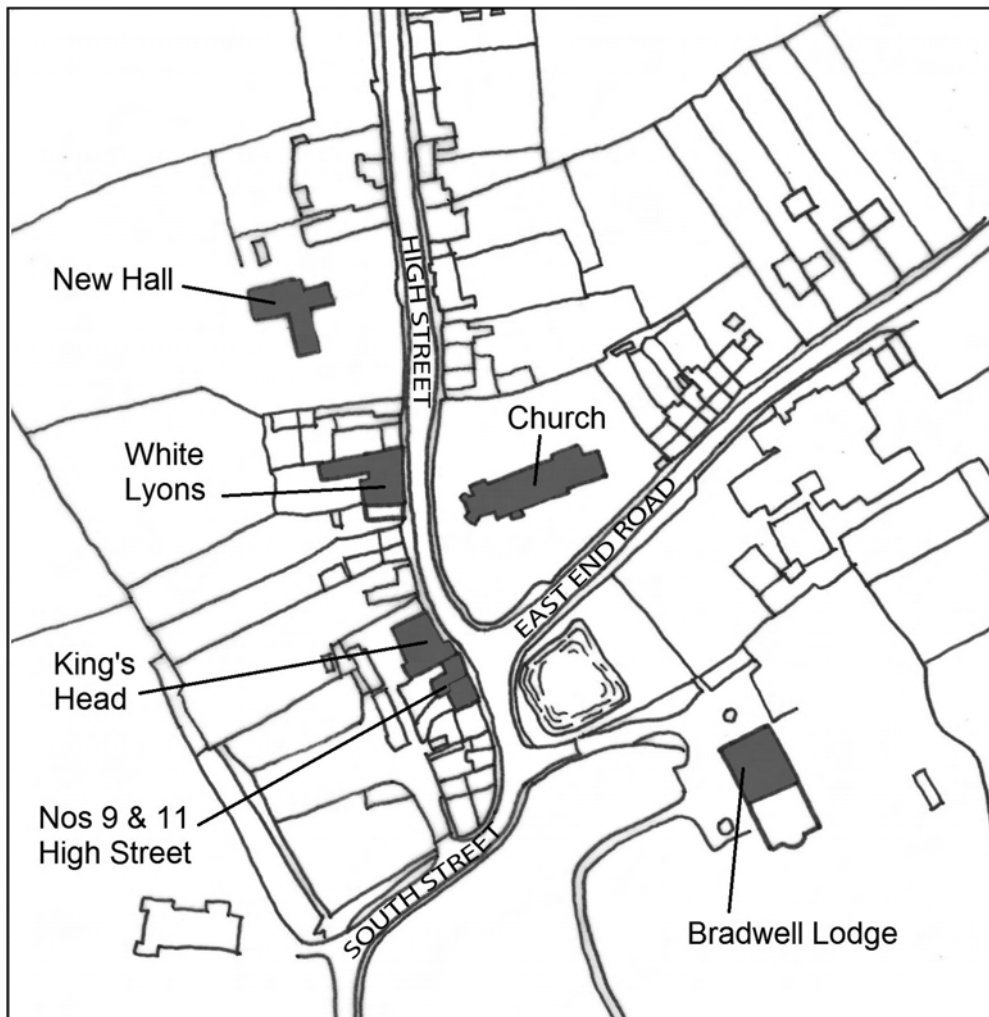


FIGURE 2: Plan of the central hamlet of Bradwell-on-Sea with buildings pre-dating c.1550 highlighted in grey.



there was a hall range set back from the street, attached to the rear two bays of the wing (Fig. 4). The position of the hall, set back from the front of the cross-wing, is unusual but not unique, and might in this instance be explained by a desire to maximise or enclose space for the market place.<sup>4</sup>

There is a single, grand chamber on the first floor of the cross-wing. On the ground floor there was one room in the front bay (possibly a shop) with access from the street via a doorway in its northern wall, and one room in the rear two bays (probably a parlour). There was an internal doorway between the shop and the parlour, and another doorway (with an arched head) leading from the parlour into the hall. The absence of an original stair trap in the first-floor structure points to the former existence of an external staircase, which was most likely situated along the rear wall of the cross-wing. The survey found there was a doorway in the rear wall of the hall in a position that is sometimes associated with external stairs that run up along the rear wall of high-end cross-wings.<sup>5</sup>

The cross-wing possessed two particularly unusual features. Firstly, the rear bay of the grand chamber had plank infill between the studs rather than the wattle and daub used throughout the rest of the building. Uniquely for Essex, some of these infill planks survived *in situ*. Secondly, clear evidence was discovered for a fixed bench which lined all three of the external walls in the front bay of the grand chamber. The evidence comprised large peg-holes to every other stud and

rectangular notches to the internal angles of the corner posts. No direct comparison for a bench like this is known.

The design of the grand chamber embodies a sense of hierarchy (Fig. 5). Moving from the rear of the room (where the entrance was located) to the front (where the bench was situated), the space becomes increasingly more open and brightly lit. In the rear bay, the hipped roof, plank infill and absence of windows made this end feel quite enclosed and dark. The tie-beam between the front and middle bay has a much steeper camber than the tie beam between the middle and rear bays. There are progressively more windows towards the front of the room. The articulation of space and light in these ways reflects the hierarchical design of medieval open halls.

Notable post-medieval alterations include the addition in the late 16th or early 17th century of a southern flank-wall chimney stack which heated the grand chamber and the parlour. The first-floor fireplace has the remains of pink ruddle across its bricks and mortar joints. The northern storey post between the middle and rear bays has a butt-cogged mortice for a first-floor structure which was probably inserted into the open hall in the late 16th or early 17th century. The present 19th-century brick range to the north of the cross-wing was built further forward than the medieval hall it replaced.

Following the fire in 2014 the owner, Richard King, employed two local carpenters, Stan Chippett and Toby Slater to repair the damaged structure, under the supervision of

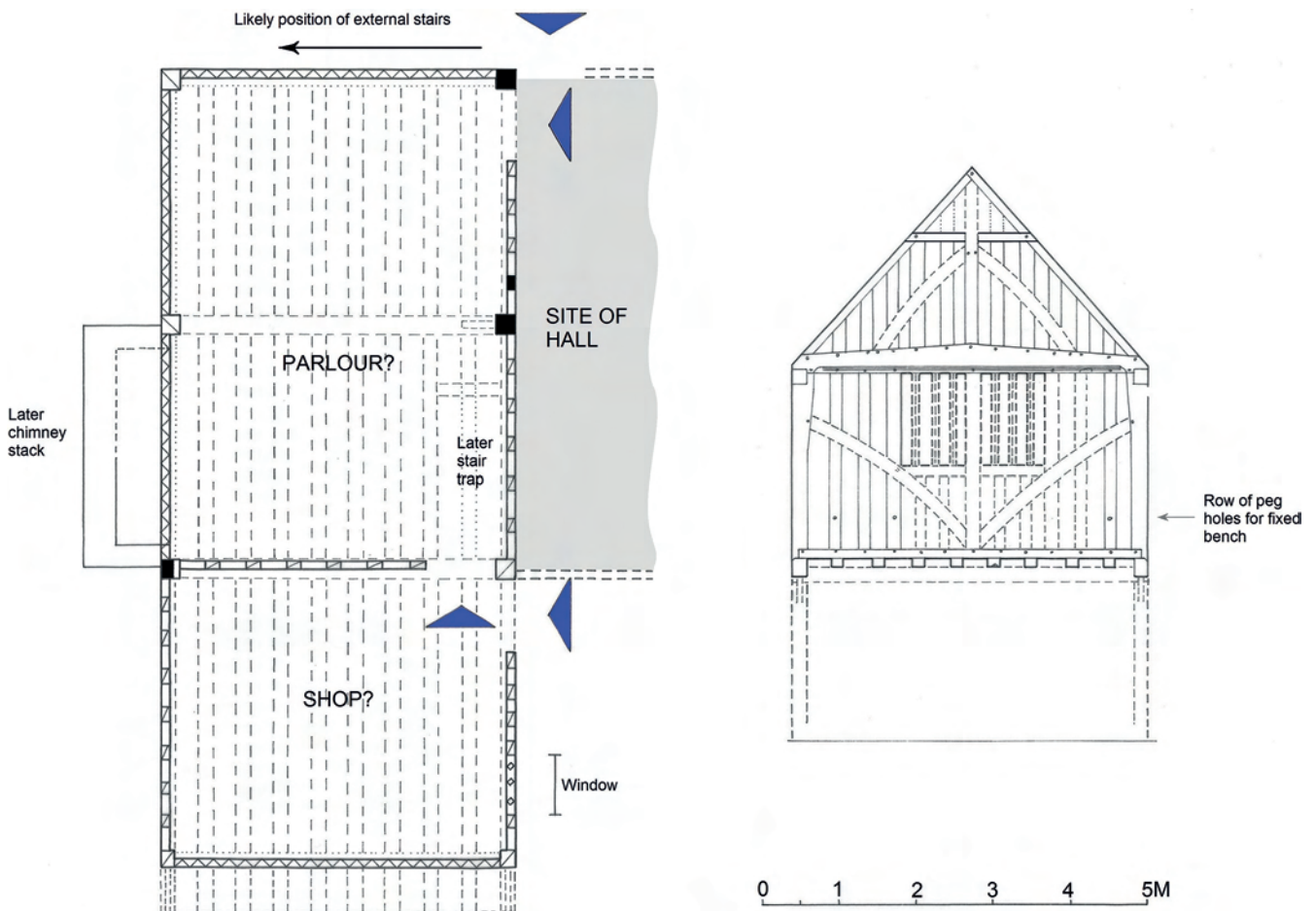


FIGURE 3: Ground floor and front elevation of the King's Head.

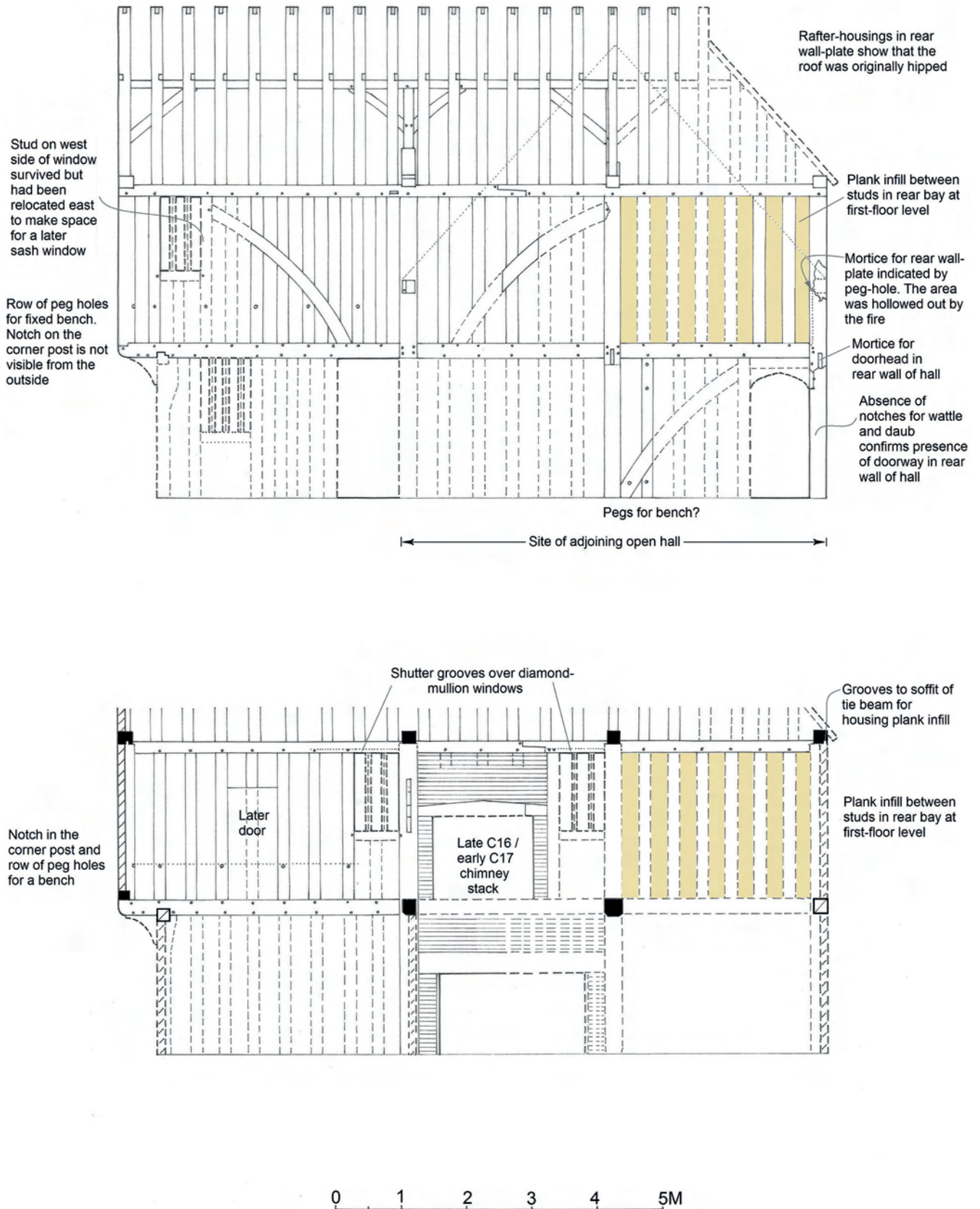


FIGURE 4: The north wall of the cross-wing (top) and the south wall viewed from inside.

the surveyor Malcolm Ginns. The repair of the building was completed in 2017, when it reopened as a public house. Due to the level of damage caused by the fire, much of the timber-framed structure had to be carefully dismantled in order to repair it. Detailed drawings were made by the author

beforehand and every timber was labelled so that it could be reused in its original position. Sections of new dried oak were skilfully spliced and glued onto old timber in order to retain as much original fabric as possible.

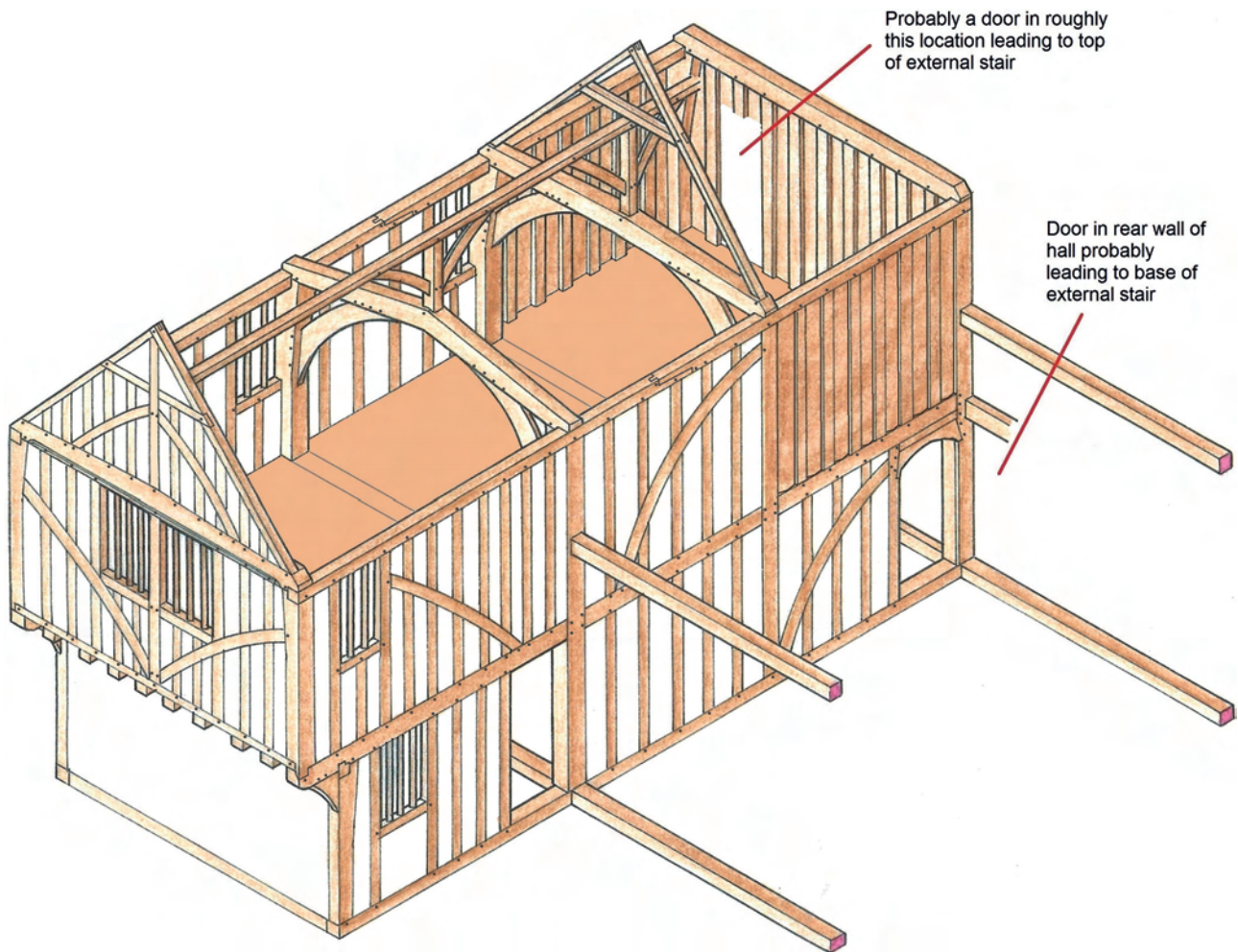


FIGURE 5: Isometric reconstruction of the cross-wing.

In order to maintain authenticity, lost features of the original design were only reinstated where the building recording had established incontrovertible evidence for their former presence. So, for instance, no attempt was made to restore the original appearance of the front ground-floor wall because the evidence for its design had been lost. The restoration of the roof included reinstating the rear hip. The number and position of the missing hip-rafters were indicated by the housings in the wall plates and rear tie beam. In addition to restoring much of the timber frame, the owner has reinstated the wattle and daub and plank infill, the sliding shutters to the un-glazed mullion windows and the first-floor bench. The reinstatement of the bench in the grand chamber was a fascinating exercise in experimental archaeology since medieval fixed benches virtually never survive. The carpenters decided the most practical solution was to use brackets, each of which has an extending arm that goes through the 'peg' holes. If such brackets were widely used it might explain why one never finds the remains of pegs in the holes associated with fixed benches.

#### NOTES

- 1 For an analysis of Nos 9 & 11 High Street see Howson, 2014.
- 2 The National Archives, C 53/71; *Cal. Charter Rolls*, 1257–1300 (London, 1906), 265, 266; S. Letters, *Gazetteer of*

*Markets and Fairs in England and Wales to 1516* (List & Index Soc., Special Ser., 32, 2003), 126.

- 3 For example the will of John Saffold, gentleman, Bradwell near the sea, dated October 10 1688 (Essex Record Office D/AER 25/158).
- 4 Another example of a three-bay cross-wing which had a set-back hall is Swan Hall, Prittlewell, which has been tree-dated to 1407.
- 5 Published examples outside Essex include The Bedford House, Chartham, and Manor House, Benenden, both in Kent (Barnwell and Adams 1994, 18–19). It has also been suggested that this arrangement occurred at Baythorne Hall, Birdbrook (Walker 2014).

#### BIBLIOGRAPHY

- Barnwell, P.S. and Adams, A.T. 1994, *The House Within: Interpreting Medieval Houses in Kent* (RCHME)
- Howson, T. 2014, 'A pair of late medieval two-cell houses in an Essex Village, and a regional context for the building type', *Vernacular Architecture* 45, 67–80
- Walker, J. 2014, 'Baythorne Hall, Birdbrook. A raised aisle hall manor house built in 1341', in Andrews, D. (ed.) 'Historic Buildings in Essex', *Essex Archaeol. Hist.*, 4th Ser., 5, 144–157

**THE KEEP OF SAFFRON WALDEN CASTLE**

David Andrews

The ruined castle keep was restored in 2016–17, the work undertaken and funded by Uttlesford District Council in conjunction with Historic England. It had been previously restored in c.1978–1980 by the District Council. At that time, the keep was recorded and excavations carried out in and around it on Bury Hill (Bassett 1982). This report is a further assessment of the keep, taking advantage of the opportunity presented by the works, and effectively confirming the accuracy of the earlier recording.

In the previous restoration, the ruin was patched up and restored by consolidating the flintwork with a cementitious slurry, probably a traditional 6:1:1 mix. This sad grey render has been removed, and such is the quality of the original mortar, made from the local chalk, that only very localised patch pointing in lime mortar has been required. After debate, it was decided to not to flaunch or rough rack the wall tops with mortar, but to use soft capping, *i.e.* to cover them with earth and turf, with sedum plants at the edges. If the grass can be successfully established, soft capping has advantages over hard, and should last longer. It should act as a thermal blanket, reducing moisture and temperature fluctuation in the top of the wall, and moisture levels lower down. There is also evidence that soft wall caps shed water differently to hard caps, and thus reduce the problem of concentrated run off down the faces of walls. However, this is one of the first times soft capping has been used in Eastern England, and it will be interesting to see how it fares in this dry part of the country. At present, the keep looks attractive, its walls newly white beneath a green hat.

**Historical background**

At the time of Domesday Book (1086), the manor of Walden was held by Geoffrey de Mandeville, a powerful noble who was constable of the Tower of London, and sheriff of Essex, London and Middlesex, and Hertfordshire. In about 1103 his son

William was punished by Henry I for alleged treachery, having to forfeit the constablership and his three most valuable manors, Walden, Great Waltham, and Sawbridgeworth. William's son, Geoffrey II de Mandeville, exploited the circumstances of the civil war in Stephen's reign to recover the family fortunes and possessions (Round 1892). This he successfully did through four charters granted to him by Stephen and the Empress Matilda, the daughter of Henry I, who contested the succession to the throne from 1139. In so doing, he acquired the reputation of the most unscrupulous and unruly of the barons in the civil war. In September 1143, Geoffrey was arrested by Stephen, and dispossessed of his lands. This prompted a furious reaction: Geoffrey plundered Ramsey Abbey and ravaged the surrounding countryside, dying in the ensuing fighting in 1144.

Geoffrey added to the family status by getting Stephen to create him first Earl of Essex in a charter of 1140. Matilda's charter of 1141 contains the first reference to a *castellum* at Walden, empowering Geoffrey to transfer the market at Newport there, with the economic benefit that that would entail. The construction of the keep is generally linked to this grant, and so thought to have been built at about that time by Geoffrey II. However, there is evidence that Geoffrey had regained his lands well before 1141, probably at the beginning of Stephen's reign in 1136 (Greenway and Watkiss 1999, xiv–xvii). It would have been odd for Stephen to have granted him the earldom in 1140 if he remained deprived of his most valuable manors. Odd too that he should have founded the Benedictine abbey at Walden probably in 1136 if he were not in possession of the manor. It is also worth considering that it would have been difficult to build a keep in a mere three years, between 1141 and 1143, construction being limited to a six-month season in each. In cases where the building programme can be tracked, about six years seem to have been required to construct a keep (Renn 1973, 26; Allen Brown 2003, 144). However, as will be seen, there are grounds for thinking that what survives at Saffron Walden was erected in two years, and a three-storey building might have been completed in three. On balance, it would be reasonable to conclude that Geoffrey recovered his estates soon after Stephen seized the throne, and that the keep was built between 1136 and 1143. This could be narrowed down to 1140–43 if construction began after Geoffrey was made Earl of Essex, just as the grant of earldoms is associated with the building of keeps elsewhere such as Castle Acre and Hedingham (Dixon and Marshall 2003). If so, then the keep may have never risen more than three storeys.

**The fabric of the keep**

The keep measures about 70ft (21.3m) square with walls about 13ft (3.91m) thick at ground level (Fig. 1). At the corners are shallow clasping buttresses which at the top may once have been developed into turrets, and between them shallow pilasters in the middle of the walls. There is no plinth, but earth was banked up around the bottom of the tower. It survives to a height of rather less than two storeys or about 28ft (8.5m). The walls are built of flints about 4–5in (100–130mm) in size. These are irregularly shaped angular flints, quarried from the chalk, often with black faces where they have been knapped or broken to make them easier to handle. Sarsens and other field stones of glacial origin are also present. A few small pieces of Roman tile were noted. The flints are set in a very compact lime rich mortar, the

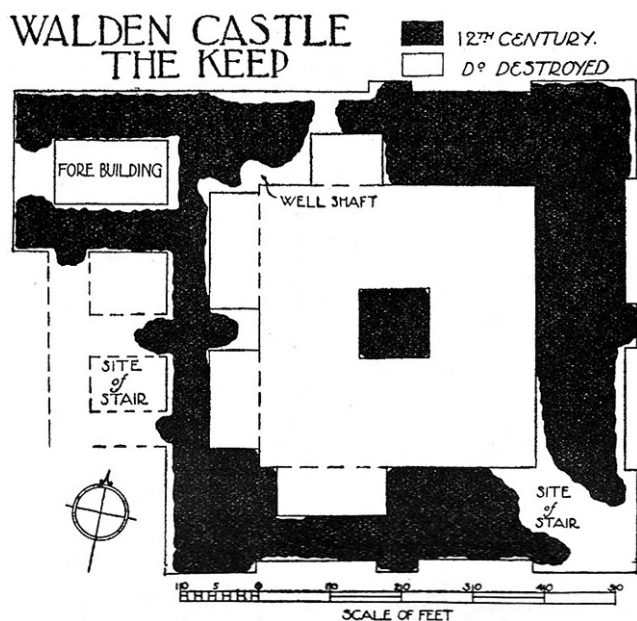


FIGURE 1: Plan of the keep from the RCHME Essex vol. 1, p.234

lime obtained by burning chalk quarried locally. This masonry presents a contrast with the rounded, weathered stones collected from the fields which are the typical building material of 12th-century Essex churches. The wall core was faced with larger 5–7in (130–180mm) flints often with knapped faces. Only very limited areas of facing now remain.

The wall construction is essentially a mass concrete which has proved sound where pierced in the north and west walls by openings and undermined. The walls must have been constructed between shuttering, the facing stones accurately plumb and laid to courses, and the core more roughly built up in between with little evident coursing. Building with shuttering is likely to have left a slurry of mortar on the outside face of the walls, leaving them partially rendered with stones staring through the rough finish. Three post-holes found parallel to the south wall in the 1970s excavations were interpreted as for scaffolding, but being at 1m from the wall, it is unclear how they worked with shuttering flush with the wall surface.

Rubble walls have to be built up in 'lifts', one layer of masonry at a time to allow the mortar to cure and harden before the next is added. In 12th-century church walls, lifts are evident at vertical intervals of about 1ft (300mm), normally recognizable as horizontal lines in the stonework highlighted by subtle changes in mortar colour. In the keep, they are not conspicuous as there is little change in mortar colour, nor are there any scaffolding or putlog holes which, when present, relate to the lifts, but horizontal joints are detectable. The lifts are most conspicuous as horizontal undulations in the surface of the walls, where lines of weakness in the fabric have been accentuated by the weather creating horizontal channels in the flintwork which seem to correspond to the lower parts of the lifts. It is as if the mortar at the top of the lift cured better than that below. The lifts seem to have been about 2–3ft (6–700mm) high, noticeably higher than those in contemporary church walls.

As is normal in such buildings, the lifts correspond to the level of the tops of arches and joist holes for floors. In the east wall, at first-floor level, there is a lift which, near the single joist hole in this wall, is more conspicuous than usual, black in colour and deeply penetrated by roots. Here there is in fact a black deposit which seems to be mainly charcoal, and which must represent an interval of time such as a seasonal break in building work, which was usually only carried out in summer months. The charcoal might possibly be explained by thatch protecting the wall tops which got burnt. It suggests that the ground floor was one year's work, raising the walls to about 15ft (5m) or 1 pole in height. On this assumption, the keep as it is preserved could represent two year's work. The entire construction, depending on its height, would have required at least three and probably four or more years.

Another feature of the walls are two oblique angled chases or grooves at the tops of the walls at the south-east angle. These can be seen to be related to the lifts, and to represent an interruption in the work, possibly seasonal, the masonry being left with inclined rather than level surfaces at these points. That the chases converge on the former spiral staircase at this corner suggest completion of this complex structure may have been put on hold, awaiting the presence of a master mason to superintend it or the arrival of ashlar masonry with which to build it.

The arches inside the keep were formed partly of flint and partly of roughly dressed chalk blocks 4–5in (100–127mm) wide and 10–14in (254–355mm) long. These are the only evidence for the use of dressed stone in the keep, apart from a chalk block in the well shaft at ground level, suggesting the well may have been chalk lined. Whilst corners might be formed in flint, it is inconceivable that flint was used for all doorways, windows and features such as the spiral staircase. The apparent absence of good quality stonework, and the use of essentially local materials, could reflect work done in haste in uncertain times.

### The forebuilding (Fig. 2)

Access to the keep was through a forebuilding or entrance tower, original to its construction, attached to the north part of its west side. Ruined walls, about 6ft (1.8m) thick, thinner than those of the keep, indicate that it comprised at least three compartments. The northern one preserves its north and south walls, and a west wall which has been broken through, presumably to make a later ground floor doorway. Surviving joist holes, preserved in the restorations, indicate the position of a timber floor. The southern part of the forebuilding was narrower. It is reduced to two wall stubs and so not reliably reconstructable.

Forebuildings were designed to provide well defended entrances to keeps. Typically, they comprised a flight of steps up the side of the building to a first-floor doorway in what was effectively an entrance tower. At Rochester and Castle Hedingham, the steps were interrupted by a drawbridge. Reconstructed along these lines, there would have been a staircase at the south-west corner of the Saffron Walden keep rising to an open well spanned by a drawbridge leading to a door in the north part of the forebuilding. Because there is no trace of doors in the surviving walls which stand to first floor height, access to the keep must have been at second floor, reached by a further flight of stairs within the north part of the forebuilding. This makes best sense if the earth round the bottom of the keep was banked up to the level of the first floor. Steps starting at this level externally would only have had to rise the equivalent of one storey to access the second internal floor.



FIGURE 2: The south side of the keep in December 2016 showing the remains of the forebuilding. The turret is a semaphore tower built in the late 18th century

### The interior of the keep

Inside the keep there are recesses between 10–16ft (3–5m) wide in all but the east wall, spanned by round arches with voussoirs of clunch (Fig. 3). The recesses seem to have stub walls at their outer corners suggesting that they were closed off, either in masonry or timber. They were presumably for storage but might have been prisons. In the south-east corner, where an opening has been made in the walls, an internal curved wall surface is interpreted as showing that there was a spiral staircase, but it must have been very tight. In the north-west corner, there is the base of a well shaft known to be 80ft (24m) deep and 3ft (0.9m) in diameter. A masonry pier about 10ft (3m) square in the middle of the interior supported the upper floors. These and the basement could have been divided in two on the line of it. A north-south partition in the basement would have created one room with the recessed storage areas and another with no such feature and access to the stairs. Joint holes, and a well-defined offset in the south wall, mark the upper floor level at a height of about 15ft (4.5m) or about 1 pole.

The first floor must have been about the same height as the basement, its ceiling level a little above the surviving wall tops. It is featureless today apart from a fireplace in the west wall about 12ft (4.4m) wide which originally was probably semi-circular rather than rectangular. The lack of evidence for windows is puzzling as usually they, or their embrasures, would descend below the level of the top of the hearth: if they existed at this floor, they must have been small and set at high level. The grand hall and principal floor must have been at the next or third floor which could have been a double height space.

### Discussion

There is good reason to believe there was a castle at Walden before the first reference to it in 1141. Geoffrey de Mandeville I and his son William were powerful nobles. Bury Hill would have lent itself to defence and fortification. Promontory sites like this were typically defended by a series of ditches across



FIGURE 3: Interior of the west wall of the keep, before completion of the restoration. A pier of masonry has been inserted between the two arched recesses where the wall had been undermined, and a concrete lintel over the top of the first-floor fireplace

them and their sides cut back as steep as possible. It has long been recognised that there are two roughly concentric enclosures round the hilltop. Recent work has made it clear that the north and west sides of the hill were scarped and that there was an inner rampart or wall running along the top of this cliff, apparently enclosing an 'innermost' bailey attached to the south-west corner of the keep. It has been argued that this rampart or wall was 14th century, but it may well have been earlier (Ennis 2010 and 2011). Geophysical survey and excavation have shown that there were extensive earthworks around the keep. It would be unreasonable and unrealistic to attribute all this work to Geoffrey de Mandeville II. The hilltop fortifications should be seen as a complex which developed over a period of several decades or longer.

The keep can be seen as the climax of the fortification of the castle, and on that assumption, it seems likely, but unproven, that it was built by Geoffrey de Mandeville II between 1136 and 1143, possibly between 1140 and 1143. This was a period when many keeps were built. It can be compared with Rochester built after 1127, Castle Hedingham, dating from the 1140s, and Castle Rising (Norfolk), after 1138. Today in its reduced state it seems small, but this is deceptive. It may also look 'roughly built' (Coulson 2003, 197), but whatever its appearance today, it was very well built. At about 65ft (20m) square, it is only just smaller than Rochester and slightly bigger than Castle Hedingham. It presents several features that are not found elsewhere. The arched recesses in the basement do not have exact parallels. At Rochester and Hedingham, there are mural chambers at this level in the corners. Basements normally have slit windows but at Walden there are none, and indeed there is also no evidence for them at the first floor. This could be explained if the earth banked against the exterior completely enveloped the basement such that there was no point in having windows. This would have meant that external ground level was about 15ft (4.5m) higher than internal. Today the difference in internal and external ground levels is about 4ft (1.3m). A rise in external ground level such as this would have helped access the entrance through the forebuilding which was at second floor, unlike other keeps where it is at first floor.

In other keeps, there is a wall thickness spiral staircase to most floors in the angle by the forebuilding, and often another in the opposing corner. At Saffron Walden, there is only evidence for a staircase in that far corner. Logic and convenience dictate that there should have been a staircase at the forebuilding, but it would only have led to the second floor, not to the basement and first floor. The first floor, which was clearly not the hall or principal room, was unusually featureless, lacking any mural chambers as well as being ill lit. There is no evidence in the keep for the garderobes typically found elsewhere. The grander and better serviced accommodation must have been at the missing second floor. A central pier supporting timber floors is not a common arrangement. Elsewhere there is a spine wall with arches at high level, or as at Hedingham the interior is spanned by diaphragm arches. Of course, it cannot be excluded that at higher level the pier became a column and supported arches.

As well as the limited time span in which was built, it is possible to make a case for the keep having been built in haste, and possibly never finished. Whilst its construction cannot be faulted for quality, the lack of evidence for ashlar

or better materials for dressings is striking. Most local 11th–12th century churches could manage to find Roman brick or ashlar for this purpose. At Hedingham, the keep is completely faced with Barnack stone. A rare example of a building of this period with flints used for quoins and window surrounds is Little Bardfield church about 16km away. It is thought to be Late Saxon but could be Early Norman. It is very different in that the ‘flints’ are rounded and obtained with other erratics from the fields, and the mortar is brown and earthy, reflecting a different local geology as well presumably as the resources of the builders. A possible conclusion is that at Saffron Walden there was no time or opportunity to get better materials in any quantity, though some must have been obtained as chevron moulded stones were found in the well (Maynard 1886). The impression given by the keep is that it was robust and functional, with the emphasis very much on strength, with little time given to devising anything more than a basic design.

Geophysical survey suggests the immediate environs of the keep were very different to how they appear today (Stratascan 2016). As well as a bank enveloping its ground floor, it was enclosed by a ditch and a bank or wall, probably with a ramped entrance like Pleshey, or the mottes on the Bayeux Tapestry, aligned on the south side of the forebuilding. A substantial earthwork ran to the south-west from its south-west corner, implying that there was a separate enclosure east of the keep.

#### ACKNOWLEDGEMENTS

I should like to thank Historic England and Uttlesford District Council for commissioning this work, in particular Deborah Priddy, Trudi Hughes and Nicola Wittman. It was greatly facilitated by the help and co-operation of Patricia Forero-Senior and Simon Marks of Purcell, and by Dave Lillywhite and his team from Bakers of Danbury. This is a summary of a fuller report deposited with the Essex Historic Environment Record and the Essex Record Office.

#### BIBLIOGRAPHY

- Allen Brown, R. 2003, ‘Royal castle-building in England 1154–1216’, in Liddiard, R. (ed.), *Anglo-Norman Castles* (Woodbridge, Boydell and Brewer), 133–77
- Bassett, S. R. 1982, *Saffron Walden: excavation and research 1972–80*, Chelmsford Archaeol. Trust Rep. 2, Counc. Brit. Archaeol. Res. Rep. 45
- Coulson, C. 2003, ‘The castles of the Anarchy’, in Liddiard, R. (ed.), *Anglo-Norman Castles* (Woodbridge, Boydell and Brewer), 179–210
- Dixon, P. and Marshall, P. 2003, ‘The great tower at Hedingham Castle: a reassessment’, in Liddiard, R. (ed.), *Anglo-Norman Castles* (Woodbridge, Boydell and Brewer), 297–306
- Ennis, T. 2010, ‘Saffron Walden, Retaining Wall, Saffron Walden Castle’, in Sparrow, P. (ed.) ‘Archaeology in Essex 2009’, *Essex Archaeol. Hist.*, 4th Ser., 1, 365–6
- Ennis, T. 2011, ‘Investigations on the medieval defences of Walden Castle, Saffron Walden 2005–2009’, *Essex Archaeol. Hist.*, 4th Ser., 2, 98–106
- Greenway, D. and Watkiss, L. 1999, *The Book of the Foundation of Walden Monastery*, (Oxford Univ. Press)
- Maynard, G.N. 1886, ‘Some account of the castle of Saffron Walden and its possessors’, *Transactions of the Essex Field Club* 4, lxxxviii–xcii
- Renn, D. 1973, *Norman castles in Britain* (London, John Baker)
- RCHME 1916, *An Inventory of the Historical Monuments in Essex Volume I* (London)
- Round, J.H. 1892, *Geoffrey de Mandeville: a study of the anarchy* (London, Longmans)
- Stratascan 2016, *Saffron Walden Castle, Essex*, unpubl. report

#### SIBLE HEDINGHAM, SWAN STREET, THE SWAN

David Andrews

The Swan was an inn since at least 1769 when Richard Brown was the licensee (ERO Q/RLv 24–25), and probably from long before. It has given its name to the road from Braintree to Haverhill which forms the main street (the A1017) through the modern part of Sible Hedingham (Fig. 1). The historic centre of Sible Hedingham is to the north and to the west of this road, on Church Street where the church is located. The Swan stands at a bend in the road where the stream known as Cobbs Fenn crosses it, opposite the junction with Alderford Street. The latter is a narrow winding lane down to Alderford Mill, not much trafficked today, but formerly much used as the route to Castle Hedingham and the De Vere establishment there, as the cluster of old buildings near this junction indicate.

The Georgian red brick front, now painted white (Fig. 2), conceals the timber frame of an H-plan building with two jettied cross-wings and a hall, rebuilt with a jettied upper floor, between them. Tree-ring dating has shown that the south cross-wing is the oldest part of the building, dating from 1426. The north cross-wing was built in 1546, whilst an estimated date of 1547–79 for the hall shows that this was rebuilt soon after (Bridge 2016). These dates were obtained without access to the roofs which at the time of writing had not been seen, nor had the upper floor of the north wing.

The older southern cross-wing was divided into two rooms at the ground floor, that at the front being slightly larger (Fig. 3). It was built of studs about 6in (150mm) wide and set about 1ft (300mm) apart. The laths in the infill panels were sprung into square holes and opposed nicks in the next stud, rather than the normal practice of opposed nicks in both studs. The ground floor partition wall is represented by large mortices in the storey posts. The wall has been removed and the common floor joists 7in (170mm) wide, and 1ft (300mm) apart, with centre tenons, cut back for the insertion of new binding joists separated by a gap 4½ft (1.4m) wide. The size of the joists, the tree ring dates obtained from them, and peg holes in them for the jetty bressumer, show that the joists are original. At first floor, of the corresponding partition wall only a fragment with a down brace remains. The ground floor front wall was moved forward when the jetty was underbuilt and can be reconstructed from what survives. There were two windows with traceried heads and moulded jambs either side of a central stud. A shutter groove runs the full length of the former jetty plate. The window mullions are represented by pairs of mortices in the soffit of the plate. The front room also had a three mullion window in the south wall, and a door in the north wall that led to the hall. The ground floor back room has lost much of its framing and has no identifiable features apart from a window in the south wall. At first floor, in the front room, there was a window right at the east end of the north wall over the jetty, and next to it, curiously, a doorway (Fig. 4). In the south wall of the back room, there was a narrow dropped head door to a garderobe, and another window above that at ground floor.

The north wing is curiously low in comparison with other parts of the building. It may be that it was set lower in the ground, reflecting the drop in level down to the north where there is the stream known as Cobbs Fenn. Parts of the frame have been lost at ground floor: the back wall and west end of the south wall have been rebuilt in brick, and the jetty

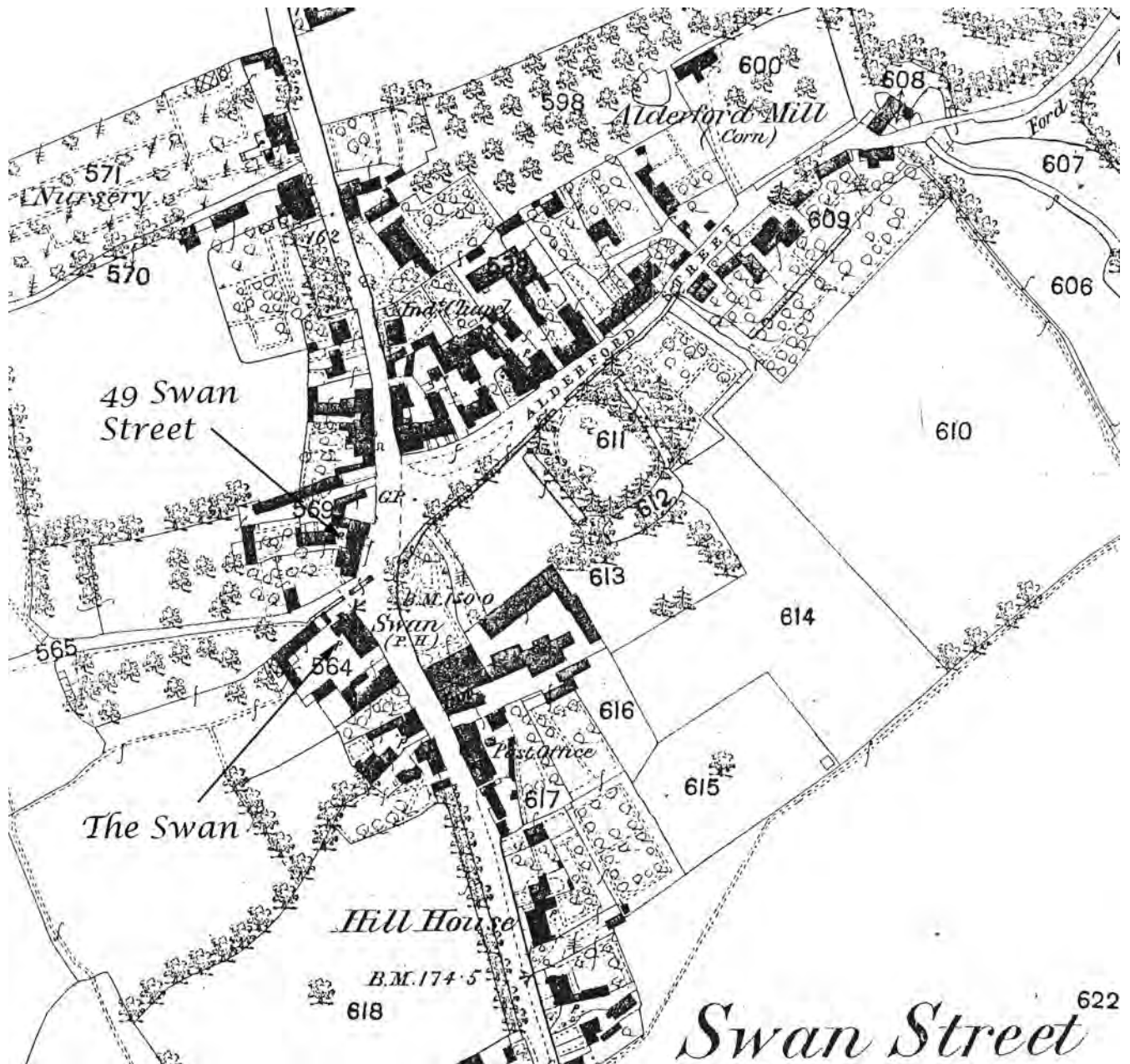


FIGURE 1: The Swan Street and Alderford Street junction from the 1st edition OS 1:2,500 map of 1876

underbuilt and the front wall removed. The walls are built with very narrow studding, the studs generally about 6in (150mm) apart and often slightly less than that in width, the storey posts about 10in (250mm) wide. Above the mid rail, the studs are wider spaced at about 250mm intervals. The floor joists measure 6–7 × 4in (150–180 × 100mm), and are about 1ft (300mm) apart. The wing is divided at ground floor into four rooms, of which the front was the largest. The three rear ones were the same size (about 8ft (2.4m)) and interconnecting, each with a three mullion window in the north wall. The second bay from the front had a stair trap on the south side. There was a pair of doors either side of a storey post into the front two rooms, one of them giving access to the stairs. A gap in the framing to the west suggests another opening into the second room; remnants of a chamfered surround, and a peg in a stud for a lintel, indicate it was a hatch or window. A further door served the third bay from the front. The doors have large mortices for arched heads.

The hall is framed independently of the cross-wings and so has no south or north walls. Much of the east and west walls have been removed but can nevertheless be reconstructed (Fig. 5). The framing is substantial, with 6–7in (150–180mm) studs 8–10in (200–250mm) apart, and binding joists which measure almost 1ft (300mm). The jetty joists are concealed by a moulded fascia. At ground floor, there was a cross-passage 5ft (1.6m) wide entered through a gate with a Tudor arch, the jambs moulded with a roll and hollow chamfer (Fig. 6). The left-hand jamb has mortices for a screen or lobby partition at right angles to the façade. The left side of the passage is formed by a large chimney made of bricks 9 × 4¾ × 1¾in (230 × 110 × 45mm) with slightly weather-struck pointing and traces of ruddling and lining out. In the passage, the joists of the 10ft (3m) high ceiling are plain, but in the main hall they have simple roll mouldings at the arrises, whilst the principal joists have double ogee mouldings. The floor construction is built into the chimney and all seems contemporary. The side of the





FIGURE 2: View of the Swan from the north

chimney is incorporated into the front wall of the hall but was concealed behind timber framing. To the left of the chimney, a gap in the framing suggests a small window. This was followed by a window 7½ft (2.3m) wide, presumably an oriel to judge from two mortices in the rail above it, with a shutter groove on the inside. At first floor above the passage, there was a window with three moulded mullions and intermediate stanchions for the attachment of glazing. Above the large ground-floor window there was one of similar dimensions, with to the right of it a frieze light with two moulded mullions. In those parts of the back wall of the hall which survive at either floor, there are no identifiable features apart from the other side of the cross passage and an internal brace at first floor. This floor was heated and seems to have been open to the clasped purlin roof with wind braces, a ceiling made of crude narrow section joists being inserted later.

To the rear of the hall is a narrow extension only 3¼ft (1m) wide which seems to have been added not long after it was built. It is well carpentered with studs 10in (250mm) apart and an internal brace at first floor. Its frame is very incomplete and no openings in it can be detected, though a rebate in the soffit of the midrail at its western end hints at the existence of one there.

The early south wing was a parlour wing, a fine building to judge from the traceried windows. The first-floor door in the north wall is an unusual feature not readily explained.

Conceivably this was reached by stairs from the hall: the wing otherwise lacks evidence for a stairs position. The later reconfiguration of the floor joists was probably for stairs. That the north wing had a service function is suggested not just by its location next to the cross-passage with a pair of doors in the traditional way, but also its division into four rooms. The larger front room was probably a shop. There are dowel holes in its front wall accompanied by taper burns or apotropaic marks, the only ones noted in the building. The probable window in the south side of the third room from the front means that this too could have been a shop, accessed from the cross passage. This wing seems not to have been heated. The hall seems to have consisted of a single large room at each floor. There is no evidence for stairs unless they were in the extension to the rear which is best explained as a narrow stair tower. Circulation between the parts of the building is unclear. The wide cross-passage suggests that when the hall was built, the building had a commercial function, something with which the hatch or window in the side of the north wing would be consistent. Possibly it was an inn, though there is no evidence for the galleried ranges to the rear which were a feature of such buildings. It might equally well have been a wealthy merchant's house. The discrepancy in height between the hall and the north cross-wing was eliminated when the roof of the latter was raised, probably in the 17th century.

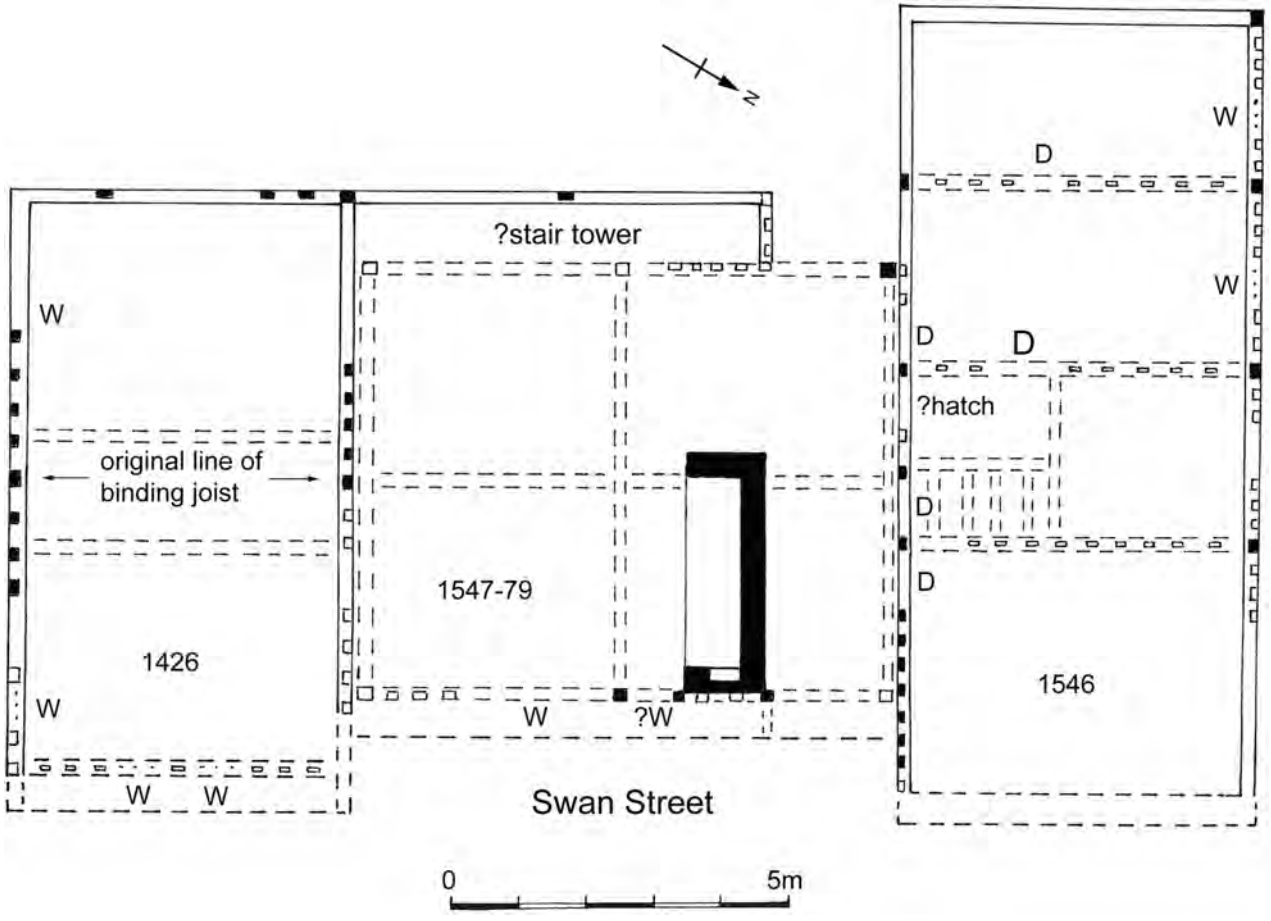


FIGURE 3: Plan of the Swan at ground floor

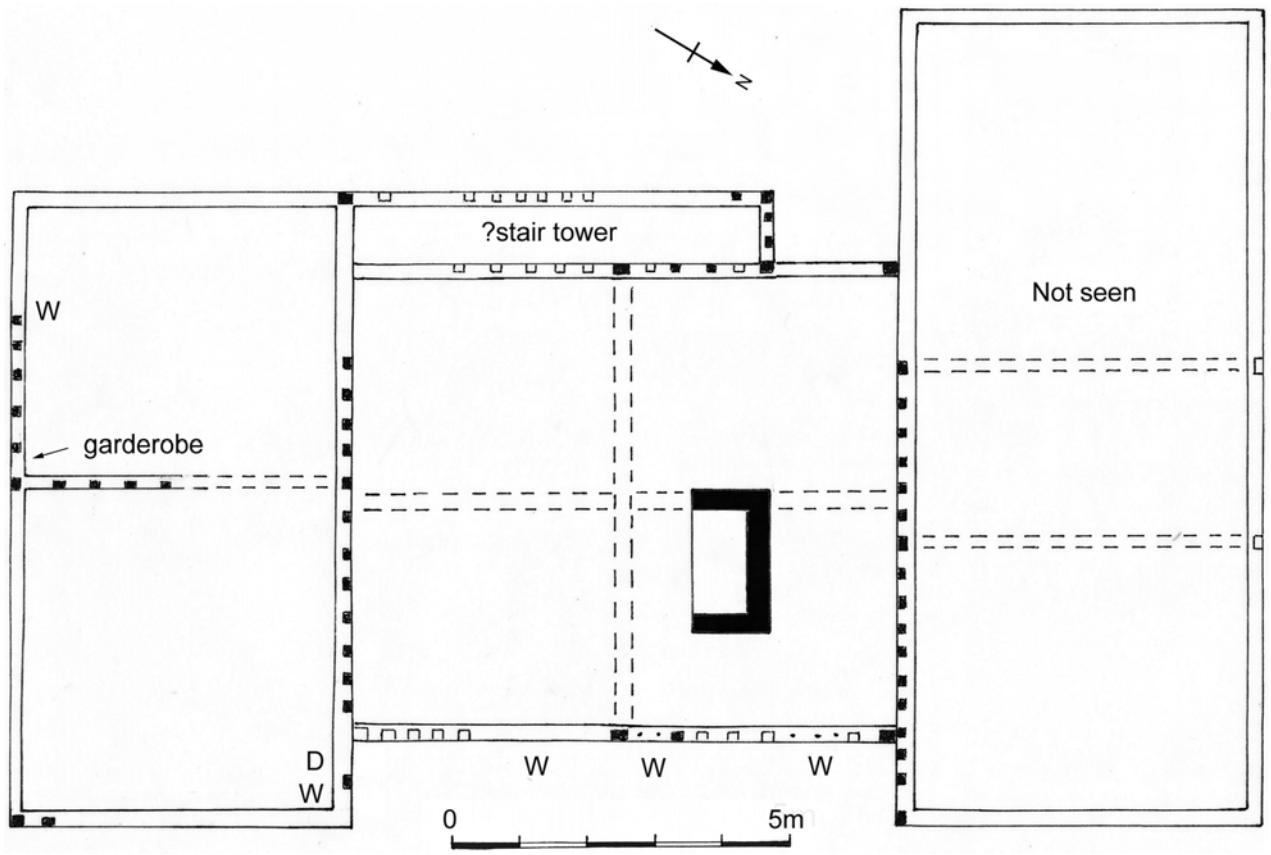


FIGURE 4: Plan of the Swan at first floor

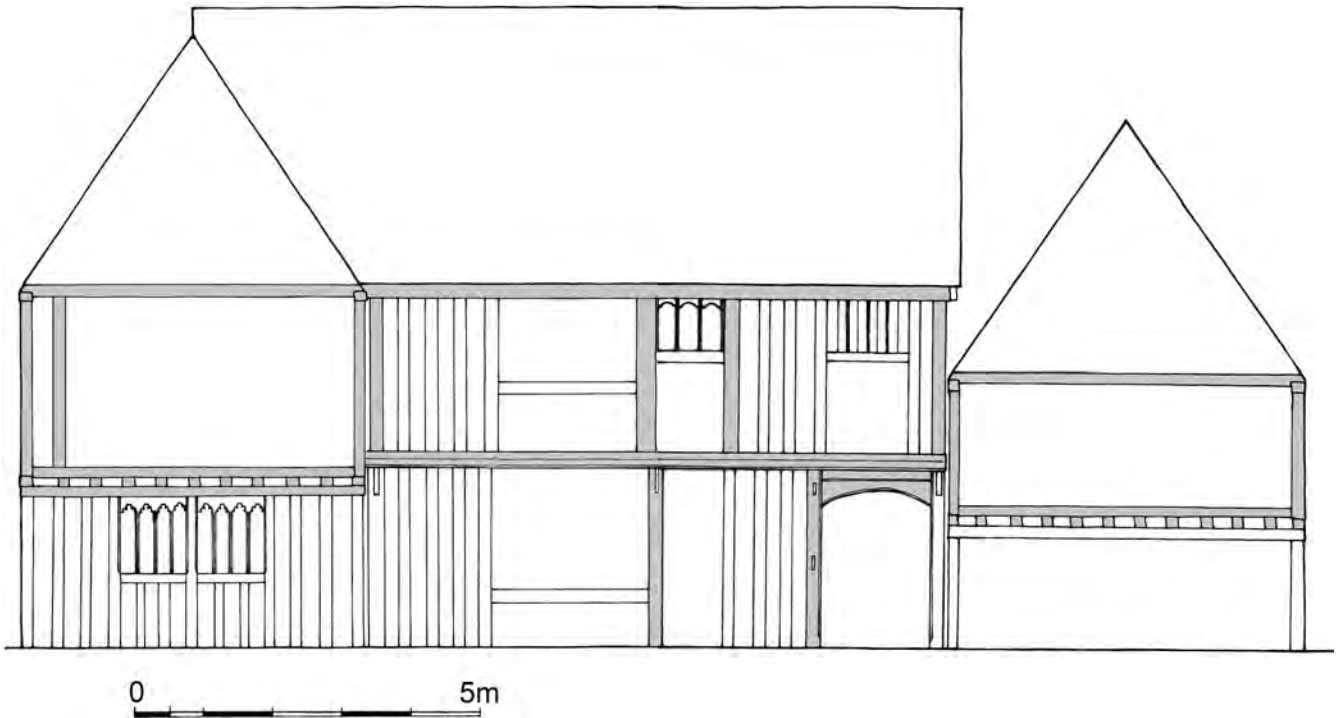


FIGURE 5: Front elevation of the Swan reconstructed from what is currently visible. Surviving *in situ* timbers are shaded.



FIGURE 6: South wall of the north cross-wing (painted yellow) and the gateway into the cross-passage

Just to the north of the Swan is 49 Swan Street, a 16th-century house which could not be tree-ring dated. This building shares the following features with the hall of the Swan: a similarly moulded fascia to the jetty, double ogee joist mouldings, a chimney close to or against the front wall with

false or stub joists for the jetty in front of it, oriel windows, internal braces and a clasped purlin roof.

At the Swan, it is of some interest that the jetty of the early south cross-wing was underbuilt, to judge from the wattle and daub infill made with hazel rods, in the 17th or 18th century, before the building received its brick front.

#### ABBREVIATION

ERO = Essex Record Office

#### BIBLIOGRAPHY

Bridge, M. 2016, *The dendrochronological dating of timbers from the Swan Inn, Swan Street, Sible Hedingham Essex*, Oxford Dendrochronology Laboratory Report 2016/18

#### SIBLE HEDINGHAM, 49 SWAN STREET

*John Walker*

##### Summary and overview

49 Swan Street is a long-jettied timber-framed 16th-century two-storey building which runs south to north, facing east to, and parallel with, the road. Its exposed timber frame has long been a landmark in the main road through the village (Fig. 1). It was restored in 2015–16. Its plan suggests the house was built for both domestic and commercial activities but it has a number of unusual features and puzzles, the main one being that one and a half bays of the front wall had no studs in it on the ground floor when built. Nor is there is any evidence for the original position of the stairs or for a door in the front wall, while the present 16th/17th-century back-to-back chimney stacks appear to be later insertions (Fig. 2)

Probably a brick wall originally filled the gap in the front wall and this contained the front door (Fig. 4). This door would have then formed a cross passage with the door opposite in the rear wall. The eastern half of this cross passage was flanked on both sides by the backs of two brick chimney stacks heating the



FIGURE 1: View of 49 Swan Street

rooms either side of it (Fig. 2). Both these heated rooms (A–C and C–D) have moulded ceiling joists and were clearly rooms of status. It is possible the northern chimney stack that is in the house today is an original stack as it appears to have been bonded into the brick wall that filled the gap in the front wall, though the evidence from the ceiling joists suggest the original northern chimney stack was smaller. If so, there must have been a change of mind when the house was being erected, not an unknown occurrence. The chimney stack on the south side of the cross passage was later removed, the gap in the ceiling infilled, and replaced by the present fireplace built on the back of the large northern chimney stack, blocking the cross passage.

The stairs to the first floor must originally have been against the back wall in bay B–C and entered from a door off the rear of the cross passage. To the north of these two heated rooms were two unheated rooms: the southern one of the two has two large windows in the front wall suggesting it was workshop, while that at the northern end of the building was lit by a large moulded mullion window in the front wall and had its own entrance from outside in the rear wall (Fig. 4). All the ground floor rooms interconnected with doors in the internal partitions, as did those on the first floor.

The first floor was divided into three rooms (Fig. 4). The northern room was lit by just one small single diamond mullion window in the rear wall and was probably used for storage. The other two rooms are better lit and the southern room could have had its own fireplace, as possibly might the middle room.

The timber framing is substantial with close studding in all the walls and partitions, and a crown-post roof with very thin braces. These characteristics, plus a number of other features,

discussed below, suggest it was built in the first half of the 16th century.

### Discussion and detailed description

The house is of six bays of varying size (Fig. 2), and originally divided into 4 rooms on the ground floor (rooms A–C, C–E, E–F and F–G in Fig. 1) and three on the first floor (rooms A–C, C–E and E–G in Fig. 4). In ground floor rooms AC and CE most of the main and common joists in the ceilings had their soffit edges chamfered with a double ogee moulding. This chamfer starts immediately against the inner bressumer in the front wall or against the mid-rail in the rear wall). The two exceptions are the main joist in truss C–C' that had a partition under it and was moulded on only the north side, while the common joist on the south side of the opening for a chimney in the eastern half of bay B–C was chamfered on only the south side but un-chamfered on the north side facing into the chimney opening. The first-floor rooms were originally open to the crown-post roof; later ceilings were inserted, creating an attic—these ceilings are not recorded on the drawings of the timber frame.

### *Cross passage and gap in front wall*

There is evidence of two doors in the rear wall, one on the north side of Post C' and another on the north side of post F' (Fig. 2), but there is no evidence of any in the front wall. However as mentioned there is a gap in the framing of the front wall on the ground floor covering almost two bays from north of post B to post D. Later studs fill the gap today (Fig. 2), but these are generally of small timber and none of them are pegged to the inner bressumer. All the original timbers

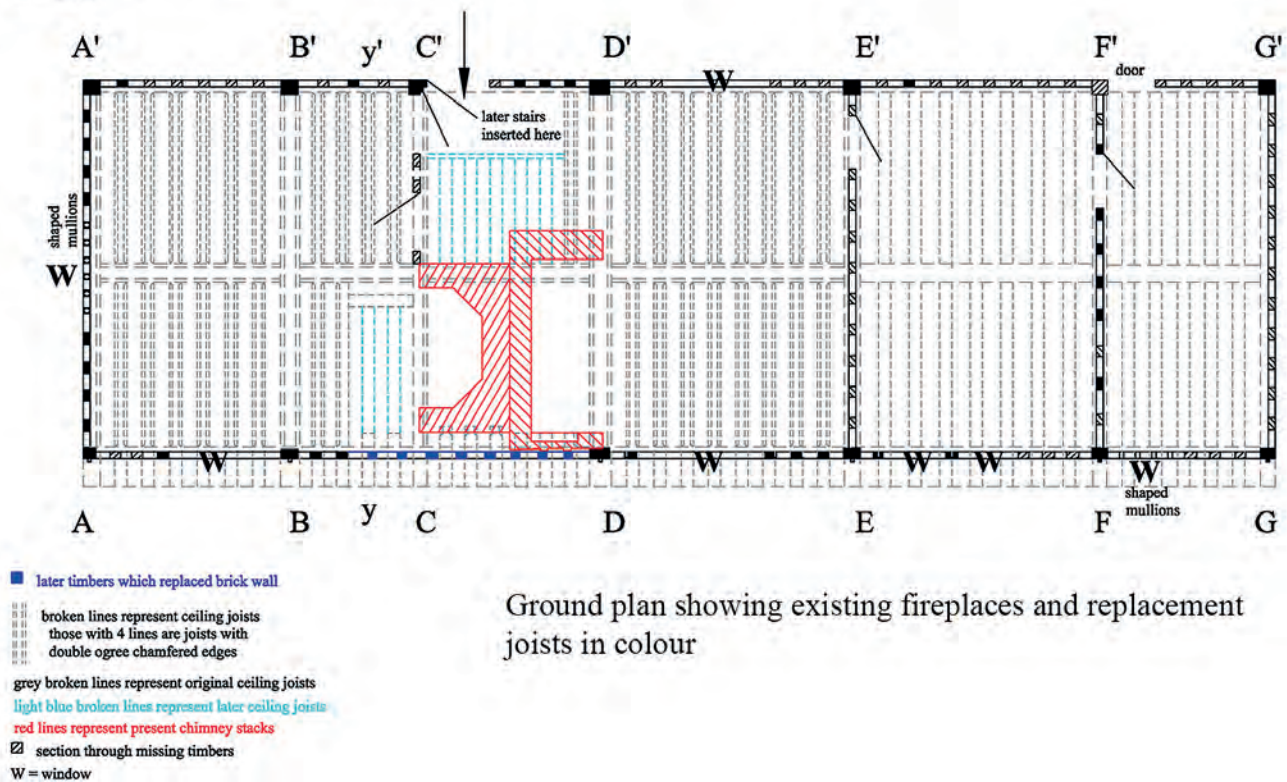
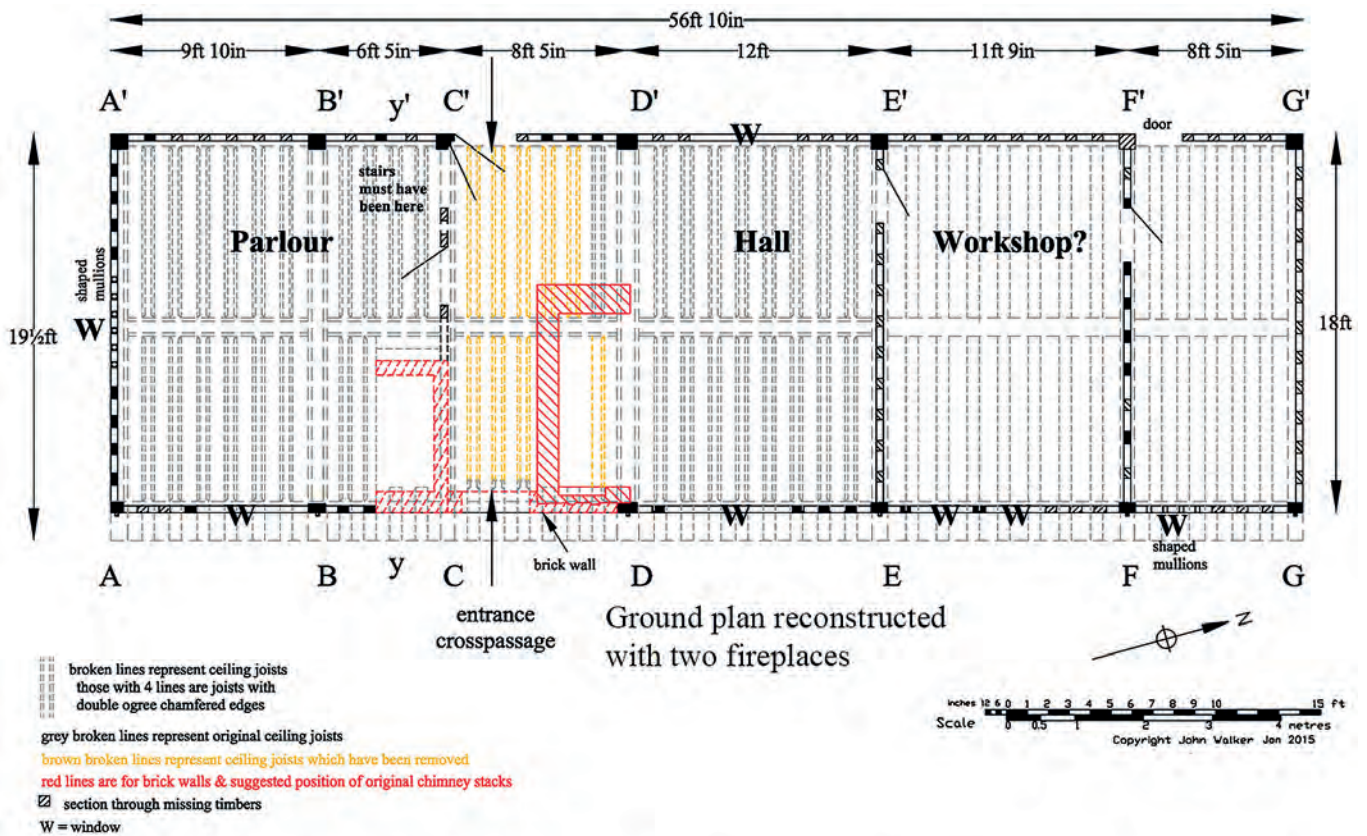


FIGURE 2: Ground floor plans of 49 Swan Street. Above, reconstruction as built with two brick fireplaces, the northern one being that there today. Below, reconstruction showing fireplaces as they are today and replacement joists in colour

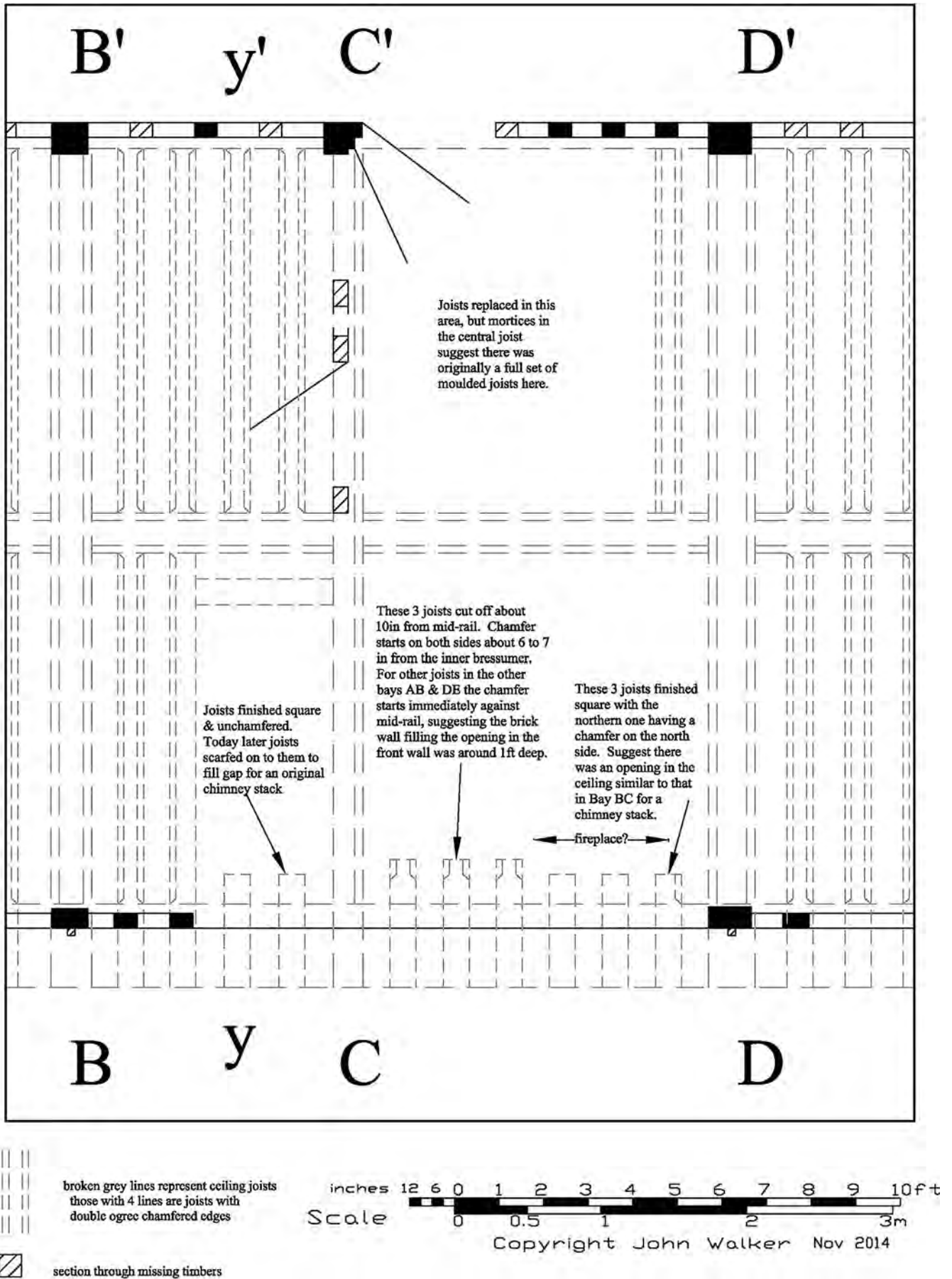
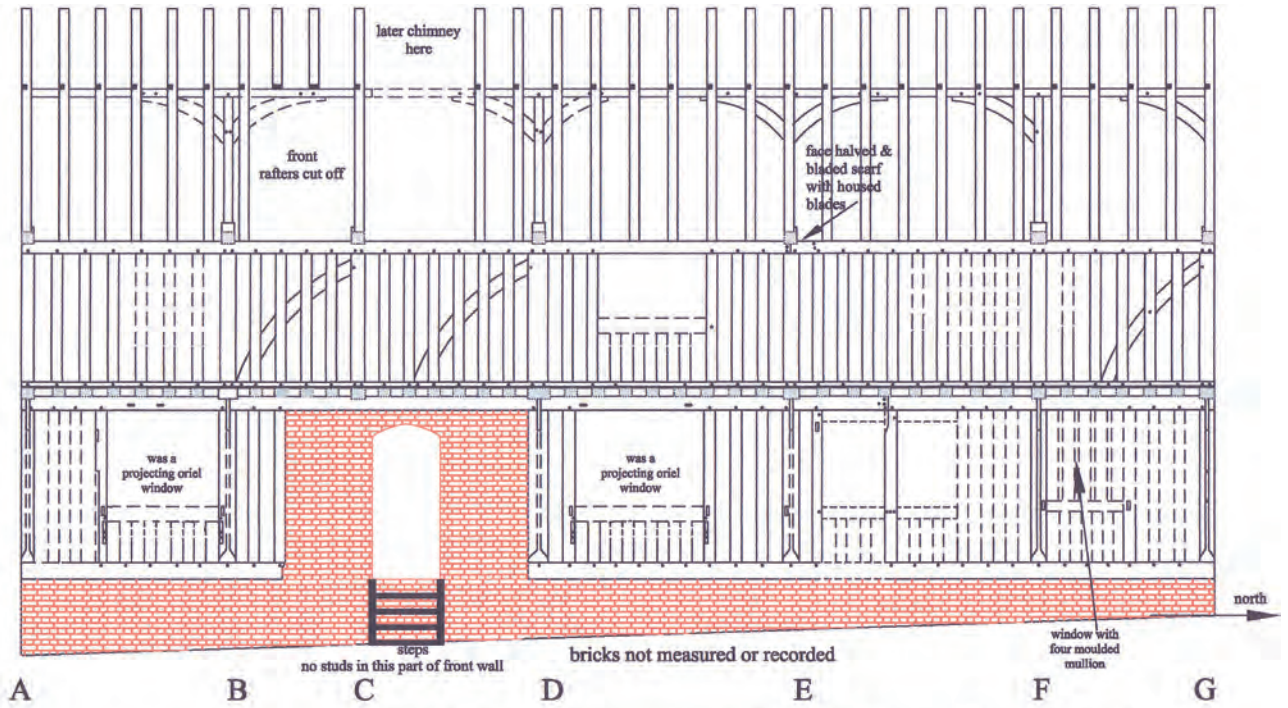
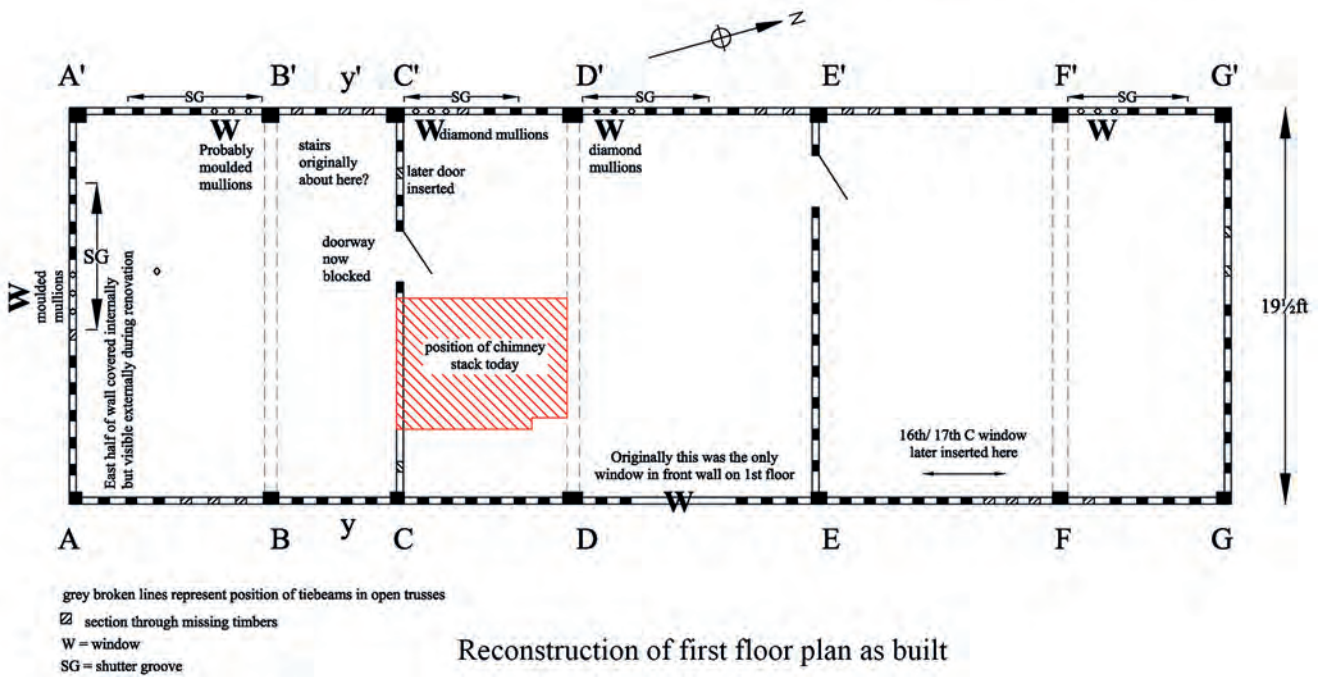


FIGURE 3: Enlarged details of ground floor ceiling joists in bays B to D



Front elevation reconstructed showing possible brick front

broken lines represent missing timbers



Reconstruction of first floor plan as built

FIGURE 4: Above, front elevation reconstructed with a brick wall; and below, reconstruction of first floor plan as built



FIGURE 5: The fireplace seen from the south

are mortised and tenoned and pegged, indicating that these narrower studs are later insertions. Nor is there any evidence of any original mortices in the soffit of the inner bressumer. Therefore, it seems likely this space was filled by a brick wall with a door in it opposite that in the rear wall against post C', forming a cross passage (Figs 2 and 4). Originally there was a wall on the south side of the cross passage in truss C–C'. Empty mortices in the ground floor ceiling joist C–C' show there was a ground floor partition with two doors in it in the western half of the truss (Figs 3 and 6).

### *Fireplaces*

Today there is a back-to-back brick chimney stack in bay C–D but this appears to be a later insertion, built in two stages with that to the north being the earliest part (Figs 2 and 5). However, both parts are built with brick of the 16th or 17th century and must be early replacements. A framed opening in the front half (east side) of the ceiling of bay B–C must be for an earlier chimney as the rafters above the opening are truncated at the front (Fig. 6). This opening is an original feature as the joist forming its southern edge is only chamfered on its south side. The north side facing the opening is un-chamfered. At the east end of this opening the joists supporting the jetty on the front wall extend into the building by about 8in (200mm) beyond the inner bressumer and then stop as shown in the drawing for section y–y' in Fig. 6. The back of this stack formed the eastern part of the partition on the south side of the cross passage. After the chimney was removed joists were inserted to fill the opening by joining them on the ends of these short jetty joists (Fig. 2).

The two chimney stacks now in the house in bay C–D (Fig. 2) appear to be later insertions, the northern fireplace inserted first with the southern fireplace following shortly

after. There is an 11in (275mm) gap between the eastern edge of the southern fireplace and the front wall, in which can be seen the short lengths of the ceiling joists which support the jetty in bay C–D (Fig. 3). The first three are cut off about 10in (250mm) from the inner bressumer with chamfers starting on both sides of the joists about 6 to 7in (150–175mm) from the inner bressumer indicating that originally there were three moulded joists in the area now occupied by the southern fireplace; it seems probable they originally continued to the centre of the building and would have been over the cross passage. As mentioned above, the chamfer on all the moulded joists in bays A to E starts immediately against the inner bressumer in the front wall suggesting the brick wall was 6 to 7in (150–175mm) deeper than the inner bressumer, giving a total depth of 13 to 15in (330–375mm). The next three joists to the north are shorter, extending about 8in (200mm) beyond the inner bressumer, the ends cut square with no chamfers apart from the sixth one which appears to have chamfering on its north side, but not on its south side, suggesting it continued and was the edge of an opening similar in size to that in bay B–C on the south side of the cross passage. This suggests there was a chimney stack in this space the same size as that suggested for bay B–C, as shown in Fig. 2. If so, this fireplace was subsequently replaced by the present fireplace which is much larger. However, this needs to be qualified as the larger fireplace there today appears to have been built bonded into the front brick wall, as the eastern edge of the stack has a ragged unfinished edge against the front wall, the type of finish that might result from removing the front brick wall. This can be seen in the narrow gap between the fireplace and the front wall but cannot be examined closely. It is therefore possible that there was a change of specification when the house was



being built. If so the present larger northern fireplace and chimney stack are original features. The southern chimney breast had traces of painting at the ground floor, too vestigial to be capable of conservation.

The southern chimney stack may have also had a fireplace on the first floor as the gap in the roof created by cutting back the front of two rafters in bay B–C is much wider than the opening in the ground floor ceiling (Fig. 4). A first-floor fireplace built on to the front of the southern chimney stack might explain this.

### *Stairs*

There is no evidence in the ceilings for any stairs. Nor is there any door in the rear wall on the first floor for external stairs, so these must have been within the building. On the ground floor all the ceiling joists are visible and all appear to be in their correct place apart from those in the rear section of bay C–D where stairs have been inserted at some time (Fig. 2). However, the ground floor partition in truss C–C' on the south side of the cross passage had two doors in it (Fig. 6). This partition does not survive but can be reconstructed from the mortices in the main binding joist in truss C–C'. In a majority of East Anglian medieval houses and 16th-century transitional houses, the stairs to the chamber above the cross passage were situated at the rear of the cross passage with a door that opens outwards into the cross passage. Rebates in post C' show that the rear door in partition C–C' opened out into the cross passage, while a mortice in this post also shows that the doorhead was very high, around 8ft (2.4m) above the floor and immediately under the binding joist (Fig. 6). The doorheads for stair doors tend to be set higher than for the other doors in order to create more headroom. Unfortunately, insufficient survives to show the height of the other door in the partition, but the surviving doorhead in truss F–F' is just under 7ft (2.1m) above the floor (Fig. 7), over a foot lower than the rear door in the cross-passage partition C–C'. All this suggest the stairs must have been in the rear of bay B–C, but this bay has a full set of moulded floor joists with no mortices for a stair trap. One possibility is that when the stairs were later moved to the rear of bay C–D, four of the joists originally in bay C–D were moved to bay B–C, removing any evidence of the stair opening. However, these stairs would have had to rise very steeply, rising up by 10ft (3m) in 4ft (1.2m), an angle of nearly 70 degrees, more like a ladder than a set of stairs.

### *Plan (Figs 2 and 4)*

The layout of the building is interesting as it differs from the more usual transitional two-storey houses of the 16th century. The more common layout continued to use the old medieval layout of service rooms below the cross passage, with a hall heated by a chimney on the other side of the cross passage and a parlour beyond the hall. Here at 49 Swan Street we start to see a change with a heated room below the cross passage and one also lit by an oriel window in the front wall and another large window with moulded mullions in the south wall (Fig. 6)—clearly a room of status and probably a parlour. On the other side of the cross passage was another heated room with an oriel window in the front wall and a large window in the rear wall; this was the hall as it contained the cross passage. Both heated rooms have moulded ceiling joists. The use of two separate chimney stacks suggests they were still experimenting

with where to put chimney stacks. To the north of these two rooms were two unheated rooms. The first unheated room (bay E–F) has two large windows in the front wall offset towards the south indicating that this room required considerable light suggesting it was a workshop. It is unlikely to have been a shop as the window sills are 5¾ft (1.73m) above the ground outside the windows. The room to the north of this had an external door in the rear wall and was lit by a single moulded mullion window set off centre in the front wall against the south corner of the room. It is unclear what this room was for, but if room E–F was a workshop, then room F–G was likely to have also been for commercial use (Fig. 2). The large number of dowel holes on the face of its internal partition wall are suggestive of a workshop, possibly of a warp frame for weaver (Fig. 7).

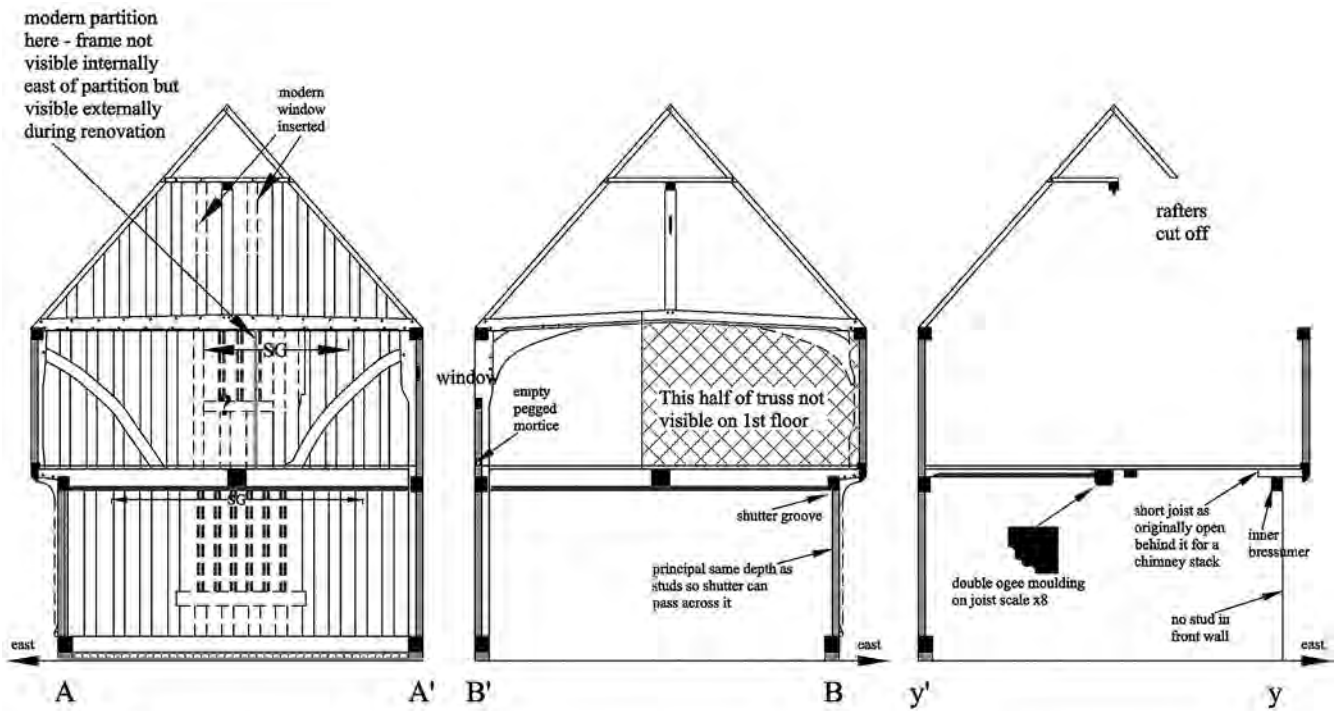
The first floor was divided into three rooms (Fig. 4). The northern room was a large two bay room E to G but was lit by a single small window in the rear wall with three diamond mullions and was probably used for storage. It had no window in the north side wall or in the front wall, though one was inserted in the front wall at an early stage. The other two rooms were better lit. The middle room C–E had two diamond mullion windows in the rear wall and single window in the front wall. This was the only first floor window in the front wall and may well have had moulded mullions. The southern room A–C was lit by two windows, in the south gable and the rear wall. That in the south gable had moulded mullions and, providing these were not just for external display, it is likely that the rear window also had moulded mullions. This room was clearly of higher status, and presumably for domestic use. It is also possible it had its own fireplace, as possibly might the middle room. All the first-floor windows have grooves for sliding shutters except possibly the single window in the front wall.

The two heated rooms on the ground floor with their decorated ceilings and oriel windows are likely to have been for domestic use and, if so, this house was built as part domestic and part commercial. The first floor was also probably part domestic and part commercial as it is likely the south room was for domestic use, while the northern two-bay room must have been for storage.

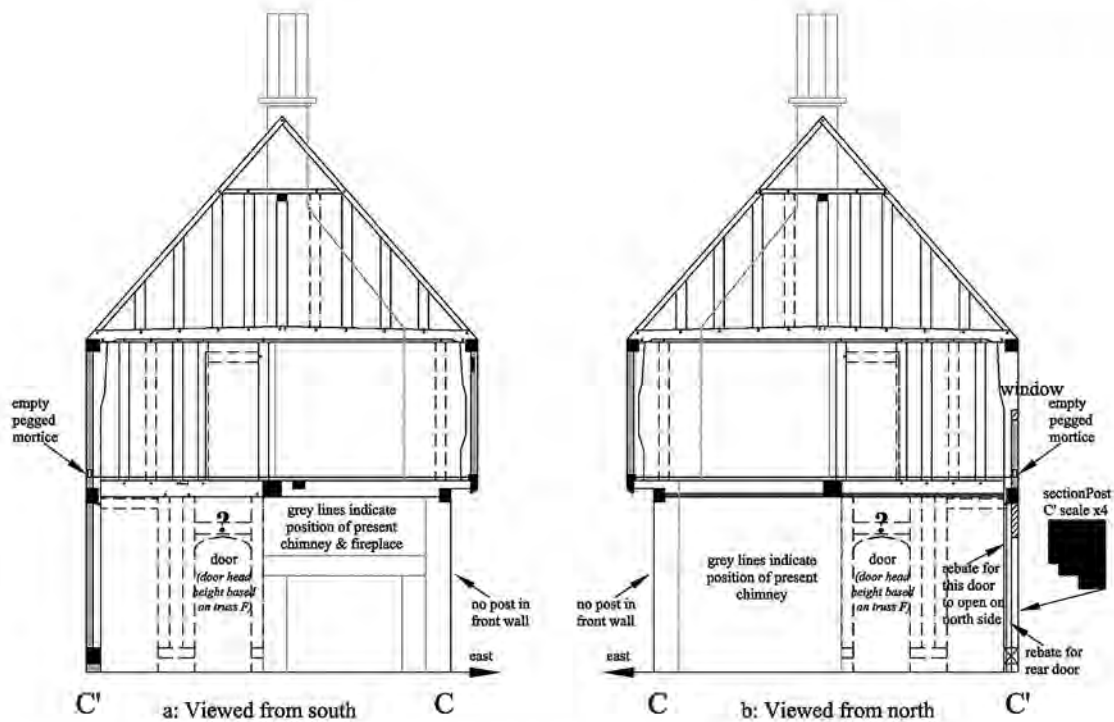
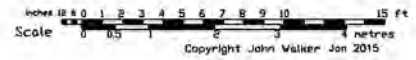
### *Other features in the timber framing*

Principal posts B' and C' in the rear wall have empty pegged mortices just above the ceiling joists in both their south and north faces as shown in Fig. 6. It is not thought the other posts have these but it was not always possible to be certain. These mortices do not appear to have any purpose as any horizontal timber put into these mortices would have run north to south and interfered with the vertical first floor studs in the wall. Presumably they were a mistake and did not matter as they were covered by the wattle and daub infill between the studs.

The two front southern ground-floor windows were projecting oriel windows with narrow cills supported by brackets. Mortices in the posts flanking the window and level with bottom of it were for a 5in (125mm) deep board which formed the cill of the window and would have projected out, supported by brackets below, which were face pegged to the post. The weight of the window has caused the brackets to leave an impression of their size pressed into the posts either side of the windows. These oriel windows were probably rectangular. Such windows are often canted and although there are



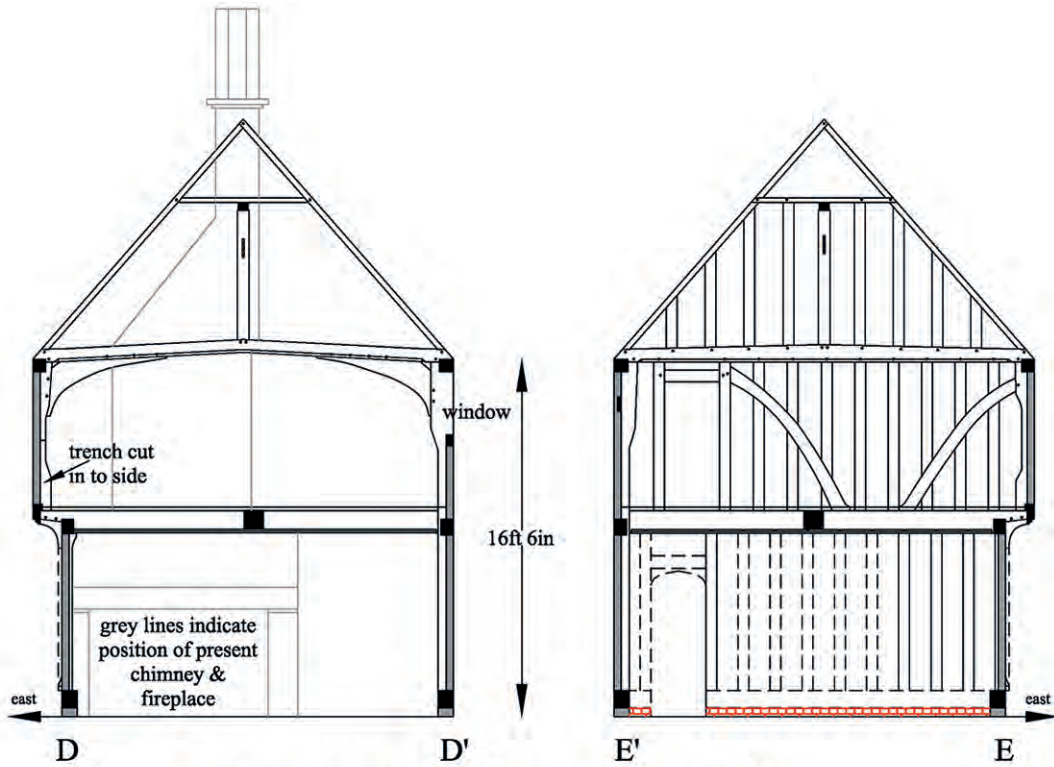
Reconstruction of trusses A and B and section Y



Reconstruction of truss C

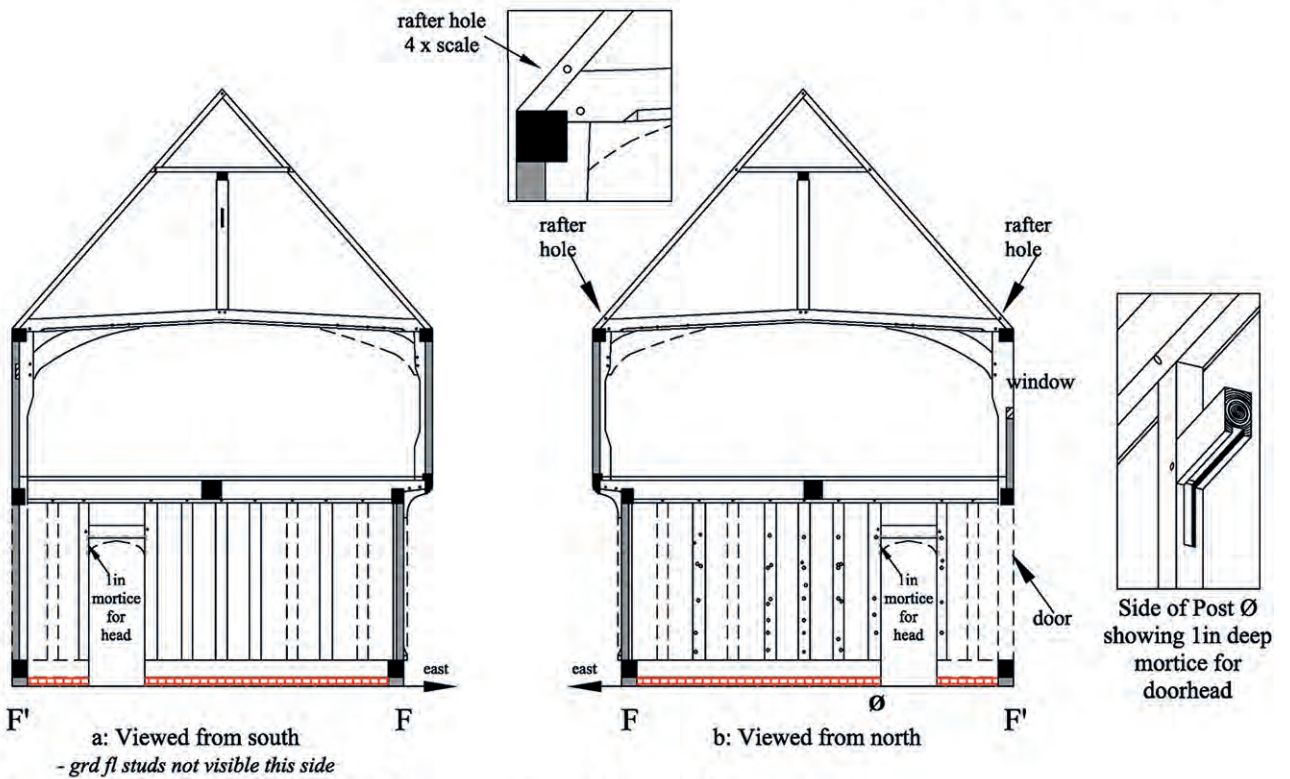
broken lines represent missing timbers  
 section through missing timbers

FIGURE 6: Above, reconstruction of trusses A and B and section y; and below, reconstruction of Truss C



### Reconstruction of trusses D and E

broken lines represent missing timbers  
 ▨ section through missing timbers



### Reconstruction of truss F

broken lines represent missing timbers  
 ▨ section through missing timbers

FIGURE 7: Reconstruction of trusses D, E and F

mortices in the inner bressumer above the windows to support the framing of the top of the window, these are not consistently spaced as would be necessary if the windows were canted.

All the principal posts in the front wall on the ground floor had simple plain pilasters which supported the brace rising to the jetty above. The two northern ones on posts F and G survive. The pilaster was 2in (50mm) square with a simple run-out base and no capital at the top where the pilaster met the brace (Fig. 4).

The doorheads on the first floor are flat, but those on the ground floor appear to have been arched, other than the stair door in truss C–C'. The rear door to the cross passage has rebates for an arched headed door but initially it was thought the internal doorheads on the ground floor were also flat like those on the first floor. However further stripping out revealed in January 2015 that the ground floor door in truss F–F' had a 1in (25mm) deep mortice under the doorhead which extended 9½in (240mm) down the side of the studs either side of the opening (Fig. 7). This must have been for an arched doorhead which just slotted into the rebate without the need for any pegs. The plaster on truss E–E' has not been removed but it is assumed the ground floor door in this truss was similarly arched as in F–F' as it opened off the important heated room D–E.

All the common rafters have 'rafter holes' on their north side (Fig. 7). These are 9in (230mm) up from the bottom of the rafter and are usual on collar rafter couples. They are only around 2 or 3in (50–75mm) deep and do not go completely through the rafter. They were used to fit the rafters to a jig in order to make all the rafters the same length and put all the collars in exactly the same position.

### Dating

Precise dating is difficult. The house was assessed for tree-ring dating but rejected because there are insufficient rings. It is likely to have been built in the first half of the 16th century. The evidence is:

- The scantling (size) of the timber is similar to late medieval houses of the 15th century with studs of mainly 6¼ (160mm) to 7in (175mm) wide by 4in (100mm) deep, and common joists of around 7in (175mm) wide by 4¾in (120mm) deep laid on the flat.
- However, the form of bracing in the external walls at 49 Swan Street is a later form. In Essex, medieval houses the braces in the side walls and end gables are half the thickness of the studs and halved across the exterior of the studs and thus only visible externally. At 49 Swan Street, they are halved across the inside of the studs and only visible inside the building, a change which seems to have taken place in Essex in the early 16th century.
- The roof of 49 Swan Street is a crown-post roof, the main medieval roof form in Essex from the 14th century, but with very thin braces only 1in (25mm) deep which usually indicates a date after c.1480/90. Crown-post roofs are relatively rare after 1550/70.
- The scarf joint used in the front and rear wall plates to join the two parts of the plate together is a face halved and bladed scarf joint with housed blades, a form that appears around 1500 and continues in use until around 1625 when it is superseded by a more advanced version of this joint. The joint used to join the common joists

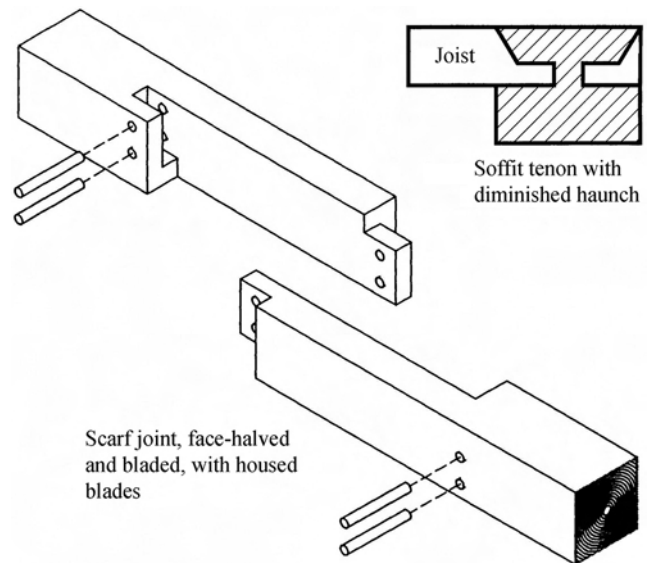


FIGURE 8: Diagnostic carpentry joints

to the main centre joist in the ground floor ceiling is a diminished haunched soffit tenon, of which the earliest version known in Essex is at St Aylotts, Saffron Walden, tree-ring dated to 1501 (*Vernacular Architecture* 28, 1997, p.142).

- The chamfering on the moulded joists, a double ogee, was in use from around the early 14th century until at least the middle of the 16th century.
- The internal doors on the first floor have flat heads rather than the more usual arched heads that were used on the ground floor and in the external door at the back of the cross passage. The change from arched headed door to flat heads is something that generally starts in the 16th century.
- The roof, scarf joint, and bracing, point to a date after 1500, but probably no later than 1550 (Fig. 8).

### SIBLE HEDINGHAM, THE SUGAR LOAVES

David Andrews

The Sugar Loaves is a prominent timber-framed building at the junction of Swan Street and Rectory Road where the main road through Sible Hedingham bends and dips down into the valley of a tributary stream of the river Colne (Fig. 1). The exposed framing is deceptive in giving the impression that it is one large building. In fact, it is of two well-defined phases, though under a single in-line roof. The southern half is a late 15th or 16th-century building with a carriage arch or gatehouse, now infilled, at its northern end. The north part of the building is a separate later wing. This report adds some detail to a previous note on the building by Brenda Watkin (2003). See also this volume (p.242) for a note on trenches excavated behind the Sugar Loaves.

The older southern building is of two bays plus the carriage arch (Fig. 2). Its southern end is curiously irregular and out of square. This normally happens when a building is inserted into a confined space between other structures, but on this side there must always have been the road. The frame is of substantial timbers, the studs typically about 7in (180mm) wide, with external bracing. The outer walls have narrow

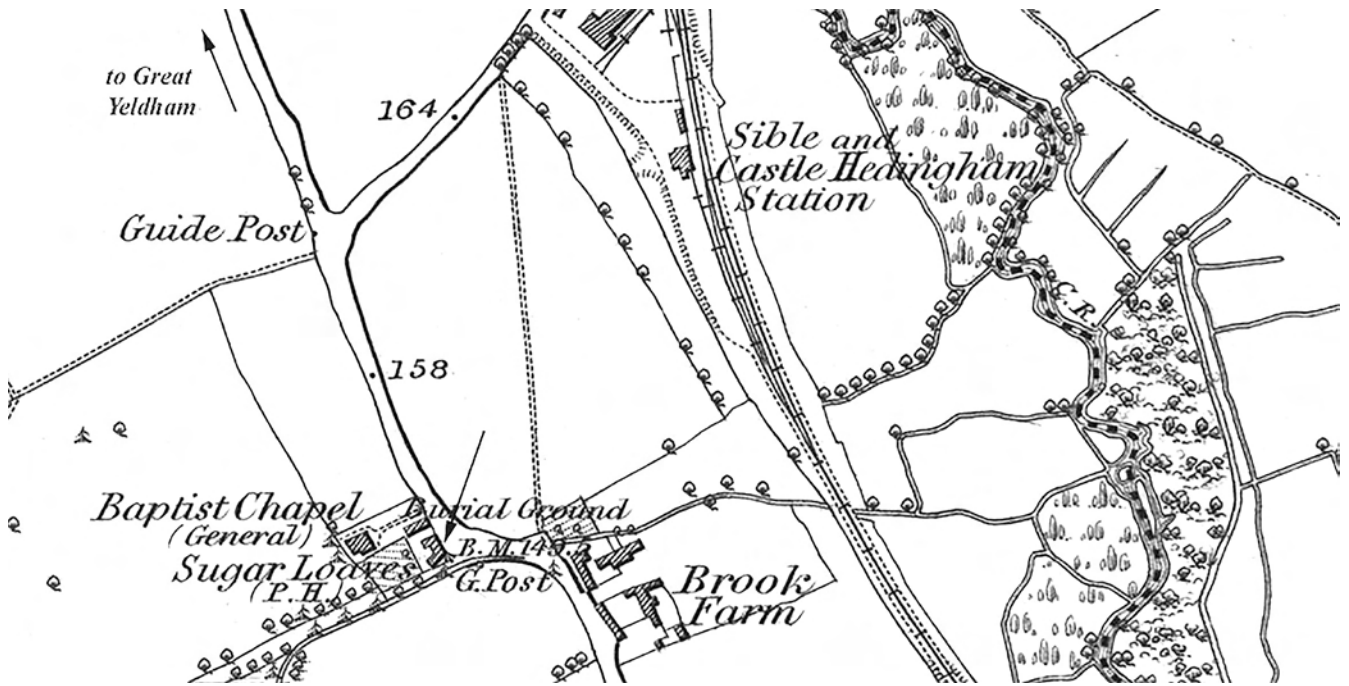


FIGURE 1: Location of the Sugar Loaves from the 1st edition OS 6-inch map of 1881



FIGURE 2: View of the Sugar Loaves from the south

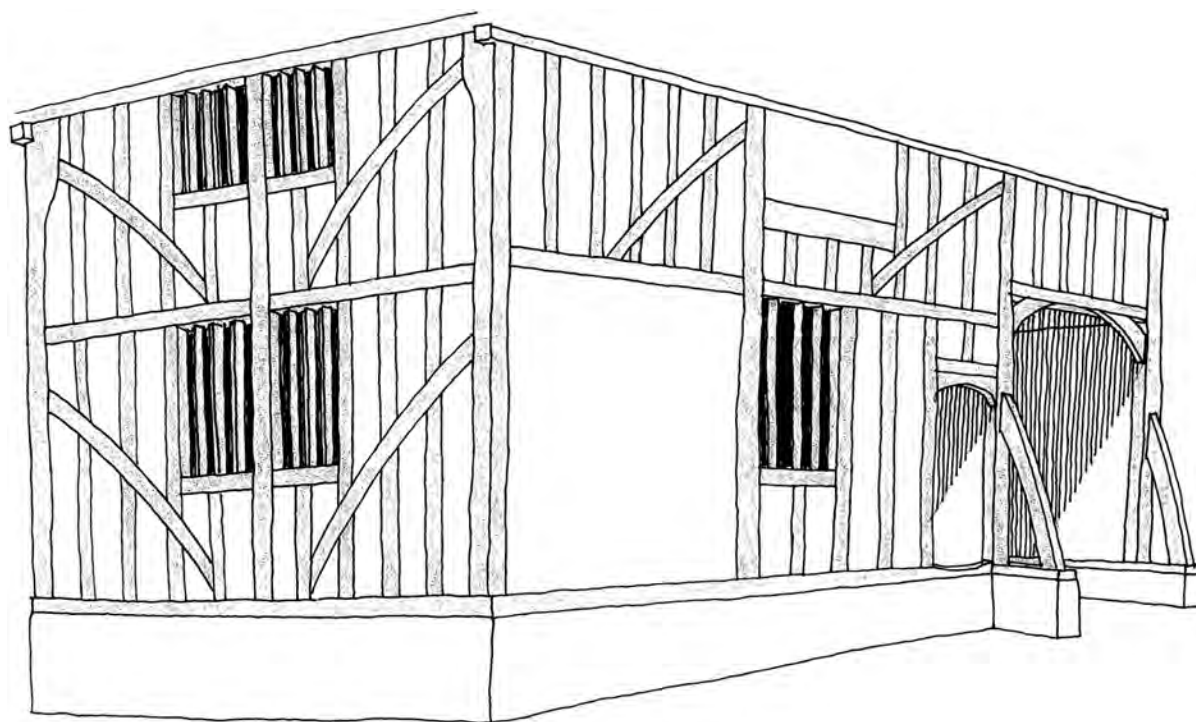


FIGURE 3: The timber frame of the oldest part of the Sugar Loaves (D.F. Stenning)

studding about 1ft (300mm) apart. Storey posts are jowled. Scarf joints are edge halved. Floor joists are wide section, probably with soffit tenons with diminished haunches. On the rear wall, there are carpenters' marks made with circles. The roof is of crown-post construction with thin braces  $1\frac{3}{4}$  in (45mm) thick. The sole plates have been renewed and raised in height so that they are now well above external ground level. Ground floor level has also probably risen; the ceiling height is now 2.8m, but originally would have been about 10ft (3m). The existing front door corresponds in position to another door in the rear wall, showing that the carriage-way was flanked by a cross-passage. These features suggest a construction date c.1475–1575.

The ground floor has a pair of four-light diamond mullion windows set either side of the storey post in the south wall (Fig. 3), with a rebate for a shutter. There is a similar window in the front wall next to the storey post; it may have been one of a pair, but today there is a modern oriel window on the other side of the storey post. The existing fireplace in the west or back wall is of modern brickwork, though the bressumer is old. In the mid rail above it, there are pegs indicating that the wall was fully framed and that there was not a chimney here originally unless it was timber-framed.

At first floor, there is a two-bay chamber with arch braces to the tie-beam. The south wall has a window with a shutter groove above that in the ground floor. There was another window with a shutter groove in the front wall now obscured by an existing window. In the rear wall at the south end, there is evidence of a window, though the opening lacks a shutter groove. To the north of this, adjacent the intermediate storey post, the absence of pegs indicates an opening about 1.1m wide which is difficult to explain. The exterior of this southern half of the wall is concealed and cannot be examined.

In the northern half of the rear wall at first floor, there is a door with a Tudor head above the cross-passage door. This

shows that there must have been a stair tower. There are still stairs here, but they begin in a curving passage within the two-bay ground floor room, and wind up the inside of a narrow  $4\frac{1}{2}$ ft (1.35m) stairwell or outshot. The timber-frame of the outshot includes reused timber and the full height studs are not pegged, suggestive of an 18th-century date. The first-floor door provided access not just to the first-floor chamber but also to a room over the gatehouse, which was integral with the building to the south. The wall that forms the south side of this room has two 'mid rails', the lower one to support the floor of the chamber to the south, and the higher one for the floor of the gatehouse room. This looks confusing today because, subsequent to the blocking of the carriage arch, the floor of the room has been lowered so that an attic storey could be inserted above, supported on clamps. A two-light diamond mullion window at the east end of the north wall of this room suggests that the gatehouse abutted a pre-existing building. The top of the wall, at the level of the original room, is fully framed, but below that level it is open framed.

There is a gap about 1ft (300mm) wide between the frame of the southern building and the north wing. This has a primary braced timber frame and a clasped purlin roof. The carpentry appears consistent with the brickwork of the two chimneys in its north wall which looks 18th century. By the time it was built, the side of the gatehouse had already been lath and plastered, the plaster having a guilloche pattern.

The Sugar Loaves has an unusual plan form and clearly was not built as a house. It may have always been an inn, but it has only been possible to trace it as far back as 1769 when the licensee was George Wright (ERO Q/QLv 24). In the 1880s it was owned by Adams and Co. of Halstead and paid dues to the manorial court of Castle Hedingham (ERO D/Dm B1/2/6).

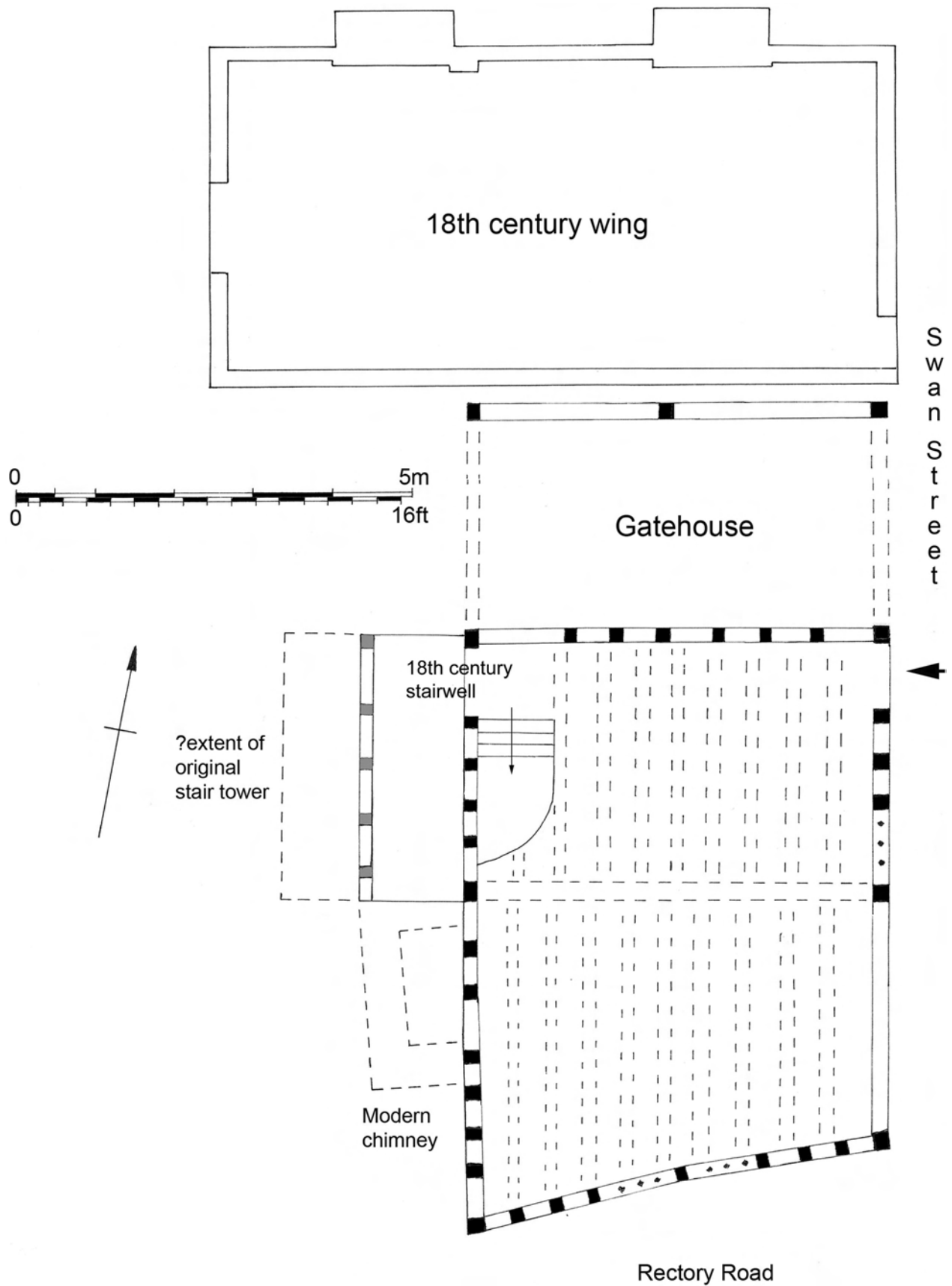


FIGURE 4: Plan of the ground floor of the Sugar Loaves

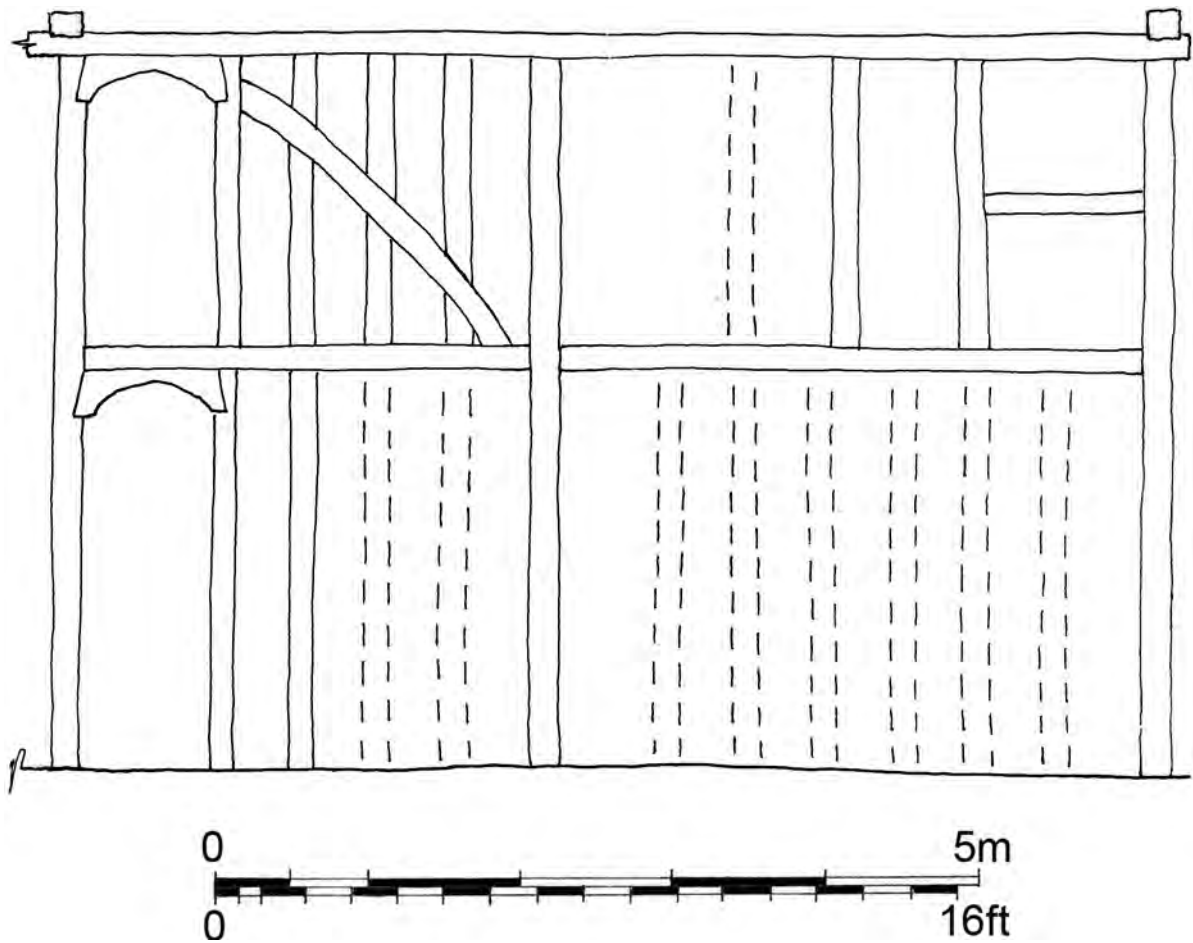


FIGURE 5: Sketch reconstruction of the exterior of the rear wall of the Sugar Loaves south of the gatehouse, seen from outside

**ABBREVIATION**

ERO = Essex Record Office

**BIBLIOGRAPHY**

Watkin, B. 2003, 'Sugar Loaves, Swan Street, Sible Hedingham', in *Vernacular Architecture Group Spring Conference 2003 Essex* (unpubl. catalogue)





# Braintree Local Heritage List—a community groups and local authority partnership

**Adrian Corder-Birch and Tony Crosby**

*As a consequence of concerns regarding the loss of some historic buildings associated with the Courtauld business and family, the Braintree and Bocking Civic Society (B&BCS), with the assistance of the Essex Industrial Archaeology Group, worked with Braintree District Council to establish a Local Heritage List (LHL) for the District. It was agreed that the LHL would initially be based upon the built legacy of the Courtaulds. This article discusses the role of LHLs in the protection of the historic environment, the process of establishing the List for Braintree District Council (BDC), and catalogues the many buildings in the District associated with the Courtaulds which are now on the LHL or are awaiting approval to be added to the List.*

*The process described demonstrates how local community groups, in this case the Braintree and Bocking Civic Society and the Essex Industrial Archaeology Group, worked in partnership with the local authority, Braintree District Council, to jointly fulfil some of the aims of each organisation. The local community groups were able to work towards the preservation of valued elements of the local historic environment, while the Council were able to fulfil their obligations to take account of these heritage assets when considering development proposals which may affect the historic environment.*

## INTRODUCTION

When the Essex Industrial Archaeology Group (EIAG) was formed as a sub-group of ESAH, six activities were agreed as part of the remit of the Group. These included researching and recording sites of industrial interest; supporting the preservation of important buildings; and working in partnership with other groups, both voluntary and statutory. These three strands came together when the Braintree and Bocking Civic Society (B&BCS) were seeking a solution to the loss of buildings and other monuments associated with the Courtauld business and family, specifically at that time the imminent demolition of the William Julien Courtauld Hospital in Braintree. The most effective way forward was agreed by B&BCS and EIAG to be to encourage Braintree District Council (BDC) to develop a Local Heritage List (LHL).

## LOCAL HERITAGE LISTING

*'Local heritage listing is a means for a community and a local planning authority to identify heritage assets that are valued as distinctive elements of the local historic environment. It provides clarity on the location of assets and what it is about them that is significant, helping to ensure that strategic local planning properly takes account of the desirability of their conservation.'* (*Historic England's Local Heritage Listing, Advice Note 7, 2016, available at: <https://historicengland.org.uk/images-books/publications/good-practice-local-heritage-listing/>*) LHLs, therefore, play an important part in building and reinforcing a sense of local identity and distinctiveness in the historic environment, helping to conserve and enhance local character. LHLs provide additional protection alongside Listed Buildings, have no extra consent requirements, but do help to influence planning decisions. As there are many buildings associated with industry which are not nationally listed, securing local listing for them will ensure greater protection for them within the planning system.

B&BCS, therefore, worked in partnership with BDC on creating an LHL for that Council area and compiled with EIAG an initial nomination list of all buildings and monuments in the District associated with the Courtauld family and business.

All types of heritage assets can be considered for inclusion in an LHL and hence these nominated assets included not only buildings such factories, a workmen's hall, village halls, a mechanics institute, schools, churches, Braintree Town Hall, hospitals, almshouses, nurses houses and dozens of staff houses across the District, but also public gardens, drinking fountains, and air raid shelters. (The full list can be viewed on the B&BCS website at: <http://www.bbcivsoc.org.uk/pdfs/Courtauld-LHL-Version-7.pdf>)

## Braintree District Council Local List

On 6th November 2013, the BDC Local Development Framework Sub-Committee (LDF) (as it then was) agreed in principle to initiate the project and in early 2014 began to consult Parish Councils, Amenity and Historical Societies. The consultation took place during the Spring and Summer 2014 and on 3rd September 2014 the LDF considered the responses to the consultation, agreed the selection criteria and decided that the first tranche of buildings to be considered should be the Courtauld estate within Braintree and Bocking (including High Garrett).

The local list was launched at the Town Hall, Braintree on 19th August 2015, which was chaired by Cllr. Wendy Scattergood and supported by Tessa Lambert, BDC Development Manager. Richard Broadhead, B.A., M.Sc., Historic Buildings Consultant of Place Services, Essex County Council explained the importance of a local list and shared his experience of compiling a similar list in another area. He outlined how the local list was proposed to work in the Braintree District, including the Local List Nominations Selection Criteria, which are set out below:

## Criteria and Categories

The criteria for selection are divided into four categories: Age and Integrity; Historic Associations and Social Value; Architectural and Aesthetic Value; and Group Value. The nominated assets needed to meet one of the 'age and integrity' categories (A), one of the 'historic associations' categories (B) and at least one of the criteria in categories 'architectural

*A. Age and Integrity*

- 
- a Pre-1840: all buildings where the style, form and construction are easily identifiable and potentially restorable
  - b 1840–1914: all buildings that are largely complete and of good architectural or historic interest
  - c 1914–1948: only buildings that are substantially complete and unaltered and of very good architectural or historic interest that are largely unaffected by alterations and extensions
  - d Post-1948: only buildings that are wholly complete and of the highest level of architectural or historic interest that are unaffected by inappropriate alterations and extensions
  - e Rare surviving examples of a particular type or form of building, material or style
- 

*B. Historic Associations and Social Value*

- 
- a Well authenticated historical association with a notable person, company or organisation, or event of national, regional or local significance
  - b Social and communal value: a building that has played an integral part in the distinctive identity of an area, acted as a focal point in the local social scene or contributed to the ‘collective memory’ of a place
- 

*C. Architectural and Aesthetic Value*

- 
- a A building that is a fine example of a distinctive (local or national) architectural style or fashion
  - b A building which is an early example of an unusual or locally distinctive building technique
  - c A building which is considered a landmark in the local scene by virtue of its striking or pleasing aesthetic value
  - d A building of an architectural style which attached significance to the quality of materials used and the skill required in construction and decoration
- 

*D. Group Value*

- 
- a Terraces or groups of buildings, including rural groups, which exhibit clear visual or functional and architectural unity
  - b Early examples of deliberate town planning
- 

and aesthetic value’ and ‘group value’ (C or D) in order to be selected for the List.

N.B. Any reference to buildings in the various categories includes structures such as fountains, bridges and items of street furniture.

**NOMINATIONS AND RECOMMENDATIONS**

During Autumn 2015 two representatives of EIAG, namely Tony Crosby (Chairman) and Adrian Corder-Birch (Vice Chairman), were elected onto the Braintree District Local Heritage List Panel. The first meeting of the LHL Panel took place on 10th November 2015 and the second on 7th October 2016. The latter meeting considered the second tranche of the Courtauld estate namely Blackmore End, Colne Engaine, Earls Colne, Gosfield, Halstead including Greenstead Green and Penny Pot, Sible Hedingham and a few buildings in Braintree and Bocking, which had been deferred from the first tranche for further investigation.

The list of buildings considered at each meeting was compiled by Braintree and Bocking Civic Society mainly using the following sources:

*THE ESSEX TEXTILE INDUSTRY—Comparative Survey of Modern/Industrial Sites and Monuments, by Tony Crosby,*

*with contributions from Adrian Corder-Birch, Nigel Pratt and Shane Gould, Essex County Council, Report No. 13, June 2001.*

*THE COURTAULD FAMILY AND THE ESSEX LANDSCAPE, by Tony Crosby and Adrian Corder-Birch, Essex Journal, Vol. 36 No. 2, Autumn 2001, pp. 47 to 54.*

*INDUSTRIAL HOUSING IN ESSEX—Comparative Survey of Modern/Industrial Sites and Monuments, by Tony Crosby, Adam Garwood and Adrian Corder-Birch, Essex County Council, Report No. 17, 2006.*

A few additional Courtauld buildings were added by Mike Bardell, M.A., then President of Braintree and Bocking Civic Society, and by George Courtauld, O.B.E., D.L.

The BDC LHL Panel has considered over one hundred buildings erected by the Courtauld companies and by various members of the Courtauld family and recommended that the majority should be included on the LHL. Some buildings were not included because they were already on Historic England’s list and therefore have statutory protection. A few other buildings were rejected by the Panel as failing to meet the criteria.

**Those recommended for the LHL and have been approved by BDC are as follows:**

LOCATION	DATE BUILT
<b>Bocking</b>	
Braintree and Bocking Cottage Hospital, (now a private house)	
60 Broad Road	1871
19 & 23 to 29 Coggeshall Road (odds)	1883
Workmen's Hall, Church Street	1884
Bocking Place, Courtauld Road	1887
The Lodge, Bocking Public Gardens	1888
Village Hall, Church Street	1926
91 to 101 Coggeshall Road (odds)	1929
Queens Meadow, Bradford Street	1930
<b>Braintree</b>	
Manor Street School (now Braintree District Museum), Manor Street	1862
Drinking Fountain, Market Place	1882
128 and 130 Coggeshall Road and 76 Mount Road	1885
Almshouses, St. Michael's Road	1936
Roman Catholic Church and Presbytery, The Avenue	1939 (Church) and 1954 (Presbytery)
<b>High Garrett</b>	
'Mon Abri' and 'Uplands' Sunnyfields Road	1850
School, later Unitarian Chapel	1850
92 to 96 and 100 High Garrett (evens)	1875
'Redcliffe', 113 High Garrett	1884
Foley House, 115 High Garrett	1885
Foley Lodge, Gosfield Road	1886
13 & 15 Halstead Road	1937 & 1939 respectively

**The following have been recommended by the Panel for the LHL, but at the time of writing approval from BDC is awaited:**

LOCATION	DATE BUILT
<b>Blackmore End</b>	
Village Hall and Caretakers House	1925
'Charlotte' and 'Emily'	1929
1 to 3 Bronte Cottages	1939
<b>Bocking</b>	
Lodge, Bocking Place, 26 Courtauld Road	1888
Gateposts to Braintree and Bocking Recreation Ground, John Ray Street	1926
<b>Colne Engaine</b>	
Pump Cottage and Trevoise Cottage, Brook Street, Buntings Green	1881
Upper and Lower Orchard Cottages, Goldington's Farm Road	1900
Hill Rise, Elms Hall Road	c.1900
Village Hall and Caretaker's House	1921
Abbotts Shrubs, Halstead Road	1926
1 to 4 Westwood Cottages, Halstead Road	1927
Gate Cottage, Knights Farm, Halstead Road	c.1950s

**Earls Colne**

Crep Factory, Foundry Lane 1883

**Gosfield**11 to 18 Park Cottages, The Street 1850 to 1875  
Lecture Hall (now Primary School),

The Street 1858

'Shardhigh' Russell's Road 1882

White Ash House, Halstead Road 1898

Gosfield Place Lodge, Braintree Road 1937

Greenstead Green

Village Hall, Grange Hill Converted

(Converted from a former Chapel) 1925–26

1 and 2 Don Johns Cottages, Nightingale Hall Road 1920s

The Lodge, Stansted Hall Road circa early 1930s

Oak Tree Cottage and Church View

Cottage, Stansted Hall Road c.1932

Stansted Hall Cottage and Gardner's

Cottage, Stansted Hall Road 1933

**Halstead**

Weavers Court, High Street 1832

Public Gardens, Trinity Street 1901

24 to 30 Sloe Hill (evens) 1909 (28 &amp; 30), 1914 (24 &amp; 26)

1 to 6 and 13 to 16 Vicarage Meadow 1920s

'Figeons' Cottages and 'Jocks', Dynes Hall Road 1921 &amp; 1933 respectively

Power House, Factory Lane West 1922

Box Mill Cottages, 1 to 4 Box Mill Lane 1922

Homes of Rest, Hedingham Road 1923

Union Offices, Colchester Road 1923

Nurse's House, 17 Pretoria Road 1923

St. Andrew's Church Hall, Parsonage Street 1924

Holy Trinity Parish Rooms, Beridge Road 1925

32 to 44 Hedingham Road 1925 to 1929

80 to 89 Hedingham, Road 1925 to 1929

28 to 35 Hedingham Road 1925 to 1929

39 Hedingham Road 1925 to 1929

117 to 123 Hedingham Road 1925 to 1929

92 to 96, 118 to 124 and 130 Colchester Road (evens) 1927 to 1935

Northanger Abbey, 1, 3 and 5 Mill Chase 1928

St. Francis of Assisi Church, Church Hall and Presbytery, 90 Colchester Road 1928

1 and 2 'Evelina' and 1 to 3 Orville Cottages, Mallows Field 1928 &amp; 1929

Air Raid Shelters, rear of Factory Terrace, Factory Lane East 1939

'Prunum' 40 Beridge Road 1940

**Penny Pot**

Penny Pot Hall, Penny Pot Corner c.1910s with alterations 1921 &amp; additions 1926

1 to 8 Penny Pot Cottages, Bournebridge Hill 1914 to 1927

High Barn Cottages, High Barn Hall Road 1926

Dove Cottage and Partridge Cottage, Froyz Hall 1932

1 and 2 Horse Cottages, Plaistow Green 1935

**Sible Hedingham**

Sparrow's Farm House, Halstead Road 1934



PLATE 1: Braintree & Bocking Cottage Hospital, Broad Road, Bocking, established in 1871 by George Courtauld.  
(Adrian Corder-Birch Collection)



PLATE 2: Public Gardens and Lodge, Causeway, Bocking, opened in 1888 and donated by Sydney and Sarah Lucy Courtauld.  
(Adrian Corder-Birch Collection)



PLATE 3: Village Hall, Church Street, Bocking, built in 1926 by Samuel Augustine Courtauld. (Adrian Corder-Birch Collection)



PLATE 4: Workmen's Hall, Church Street, Bocking, built in 1884 by Samuel Courtauld & Co., and designed by George Sherrin. (Adrian Corder-Birch Collection)



PLATE 5: Drinking Fountain, Market Place, Braintree, presented to the town of Braintree by George Courtauld MP in 1882. (Tony Crosby)



PLATE 6: Our Lady Queen of Peace Church, The Avenue, Braintree, built in 1939 by Dr Richard Minton Courtauld. (Tony Crosby)



PLATE 7: School and later Unitarian Chapel (now in retail use), High Garrett, Bocking, built as a school in 1850 by Samuel and Ellen Courtauld. (Adrian Corder-Birch Collection)

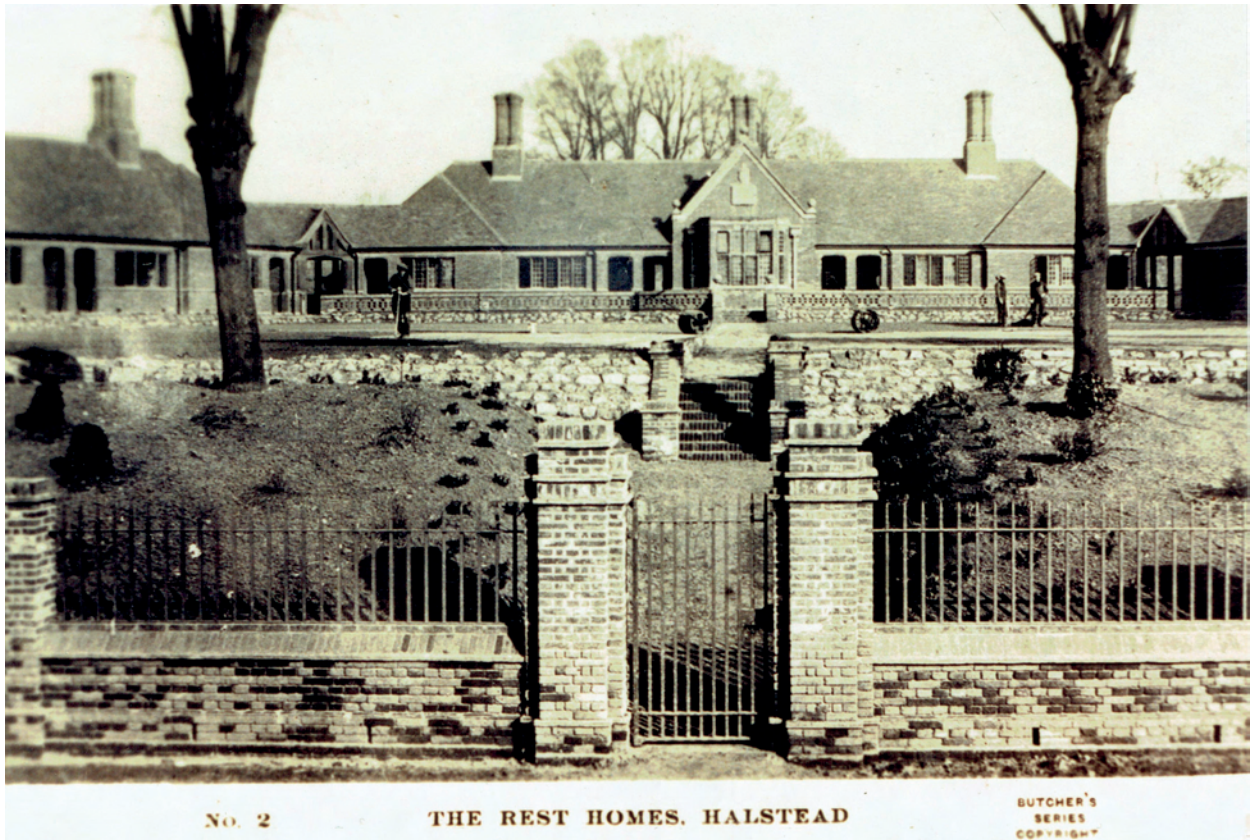


PLATE 8: Crepe Factory, Foundry Lane, Earls Colne, built in 1883 for Samuel Courtauld & Co. (Tony Crosby)



PLATE 9: Lecture Hall (now Primary School), The Street, Gosfield, built in 1858 by Samuel Courtauld.  
(Adrian Corder-Birch Collection)





No. 2

THE REST HOMES. HALSTEAD

BUTCHER'S  
SERIES  
COPYRIGHT

PLATE 10: Homes of Rest, Hedingham Road, Halstead, built in 1923 by Samuel Augustine Courtauld.  
(Adrian Corder-Birch Collection)



PLATE 11: Power House, Factory Lane West, Halstead, built in 1922 to provide power to the Courtauld's weaving factory.  
(Tony Crosby)



PLATE 12: St. Andrew's Church Hall, Parsonage Street, Halstead, built in 1924 with a major subscription from Samuel Augustine Courtauld. (Tony Crosby)

**The following buildings are already on National Historic List for England register of listed buildings and hence have statutory protection:**

LOCATION	DATE BUILT	GRADE
<b>Bocking</b>		
Literary and Mechanics Institute, Bocking End	Rebuilt 1863	Grade II
121 to 139 (odds), Church Street	1872	Grade II
School Gymnasium, now Register Office, Bocking End	1928 to 1929	Grade II
<b>Braintree</b>		
Pound End Mill, South Street	1818	Grade II
Town Hall, Market Place	1928	Grade II*
The Corner House, Market Place	1929	Grade II
Fountain, St. Michael's Road	1937	Grade II
Leahurst, High Street	1939	Grade II

**Gosfield**

Reading and Coffee Room, The Street	c1850s	Grade II
Home Farm Cottages, Hall Drive	c1850s	Grade II
1 to 8 Park Cottages, The Street	1850 to 1875	Grade II
Bake House, 18 Park Cottages, The Street	1875	Grade II

**Halstead**

Townsford Mill, The Causeway	1788	Grade II*
Mill House, Gate House and Coach House, The Causeway	18th and 19th centuries	Grade II
1 to 16 Factory Terrace, Factory Lane East	1872	Grade II
1 to 12 and the British Legion Hall, The Causeway	1883	Grade II
Halstead Cottage Hospital, Hedingham Road	1884	Grade II
Drinking Fountain, Market Hill	1887	Grade II

**CONCLUSION**

Many of the buildings detailed in each of the above three sections are in Conservation Areas. Heritage Assets can be both in a Conservation Area and on an LHL, and so will have protection both as part of the special character of the Area and as individual buildings in themselves.

There are a few remaining 'Courtauld' buildings in the Braintree District for which further investigation is required. In addition a few more 'Courtauld' buildings in the area covered by Colchester Borough Council are also under consideration. It

is anticipated that these will be the subject of a supplementary note in a future edition of the Transactions.

The Courtauld business and family had a major impact on the landscape of this part of Essex, and it is hoped that by having the associated heritage assets locally listed, it will ensure a greater degree of protection of these buildings and monuments, which are valued by the local community. Having established the LHL for the District, further buildings of industrial interest, which are not nationally listed buildings, will hopefully be added to the Local Heritage List.



## Shorter Notes

### INVESTIGATIONS AT NEW STREET, MALDON: EARLY IRON AGE OCCUPATION AND REMAINS ASSOCIATED WITH THE CARMELITE FRIARY

Lawrence Morgan-Shelbourne

With contributions from Matt Brudenell, Berni Sudds, Kevin Rielly and Kevin Hayward

*An archaeological evaluation and excavation carried out by Pre-Construct Archaeology on land at New Street, Maldon, has identified further evidence of Early Iron Age occupation on Maldon hilltop, in addition to remains associated with the Carmelite Friary which occupied the site and land to the east between 1292 and 1538.*

#### Introduction and background

The site is located at New Street, Maldon, Essex (NGR TL 8491 0690; Fig. 1) and comprised 0.04ha of gently-sloping ground, falling away to the south and south-east to 26.33m OD and rising slightly to the north and west to 30.29m OD. The underlying geology is clay, silt and sand of the London Clay Formation. The archaeological work, comprising a trial trench evaluation and small open area excavation (250m<sup>2</sup>), both conducted in October 2014, was commissioned by CgMs Consulting on behalf of McCarthy and Stone Retirement Lifestyles Ltd prior to the development of new apartments. Full details of the background to the project and full descriptions of all the features and finds from the fieldwork can be found in the archive report (Morgan-Shelbourne 2015), copies of which are accessible through the Archaeology Data Service website (<[www.archaeologydataservice.ac.uk](http://www.archaeologydataservice.ac.uk)>) under Oasis ID 192798, and at the Essex Historic Environment Record, Chelmsford. The site archive will be deposited at Colchester Museum.

#### Early Iron Age occupation (c.800–350 BC)

Pottery analysed by Matt Brudenell

The earliest activity comprised nineteen pits, two possible postholes and two north-east- to south-west-aligned ditches, which may have formed boundaries within or at the edge of a settlement (Fig. 2).

The pits varied considerably in size (0.62–2.45m across) but all were circular or oval in plan and were consistently shallow (0.18–0.38m deep), with rounded profiles and, with one exception, single fills of mid reddish-grey silty clay. Finds were scarce but nine of the pits contained sherds of handmade prehistoric pottery. The total assemblage is small, comprising just thirty-six moderately-abraded sherds. All are plain and, barring a single rim sherd, are all undiagnostic body sherds. However, the general thickness of the sherds, together with the dominance of fabrics tempered with a combination of burnt flint and sand (accounting for 54% of the assemblage by weight), suggests that most of the assemblage is Early Iron Age, c.800–350 BC. Indeed, the best parallel for the mix of fabrics is the published Early Iron Age assemblage from nearby Beacon Green, Maldon (Brown 1992; Brudenell 2012).

Although the associated finds are limited and relatively chronologically undiagnostic, the consistent presence of handmade potsherds in similar fabrics within multiple pits, the identical appearance of the pit fills, and the way in which the pits respected each other, suggest that they were more or less contemporary with one another. The mainly discrete nature of the pits might indicate that they represent activity taking place over a fairly short timeframe, with the location of each preceding pit still being visible or remembered by the excavators when the next pit was dug. As such, the Early Iron Age activity on the site is likely to represent a relatively intensive, if perhaps brief, phase of land-use. They might perhaps have been dug to extract clay, possibly for making daub.

Previous fieldwork in Maldon has found evidence for an Early Iron Age settlement on the high ground to the west of the High Street (Fig. 3). Excavation at Beacon Green in 1987 found a possible palisade trench (Bedwin 1992), suggested as having formed the north-western boundary of an enclosure which may have extended as far south-east as Spital Road (Brown 1986), where an undated gully of similar character to the palisade slot has been recorded. There is also the possibility, based on the stratigraphic relationships identified at Beacon Green, of an ‘open’ settlement preceding the establishment of the palisade. The Anglo-Saxon Chronicle records the construction of a burh at Maldon in AD 916, which was successfully defended against the Danes the following year. It has been suggested that the burh reused the earthworks of an Iron Age fortification on the hilltop, but archaeological evidence to prove or disprove this claim has not yet been found. The New Street site lies just outside and to the south-east of both the conjectured palisaded enclosure and the burh (Fig. 3). Later Iron Age settlement and activity was apparently concentrated on the lower ground between Heybridge and Maldon, to the north-east, following the abandonment of the hilltop. However, it has recently been suggested that the burh of 916 actually lay to the east of the hilltop and that the fortifications on the hilltop represent an earlier burh, or campaign fort, constructed in 912 (Haslam 2015).

The pits, postholes and ditches found at New Street provide important additional evidence for Early Iron Age occupation of the hilltop area, broadly contemporary with the settlement evidence found at Beacon Green. The relatively high density of features within a small excavation area, especially when viewed alongside other broadly contemporary nearby sites, such as those at the London Road Youth Hostel (Bassett 1973), Spital Road (Brown 1986), Tenterfield Road (Garwood 1996) and, potentially, Wellington Road (although the features there were undated; Pocock 2005), is indicative of a settlement area or at least very close proximity to one. The quantities of finds both within features and in residual contexts at other nearby sites would also seem to indicate a fairly substantial settlement. The presence of two undated north-east- to south-west-aligned ditches within the evaluation trenches, visible at a similar depth to the Early Iron Age pits and containing similar fills to them, suggests that these features also relate to this period, possibly

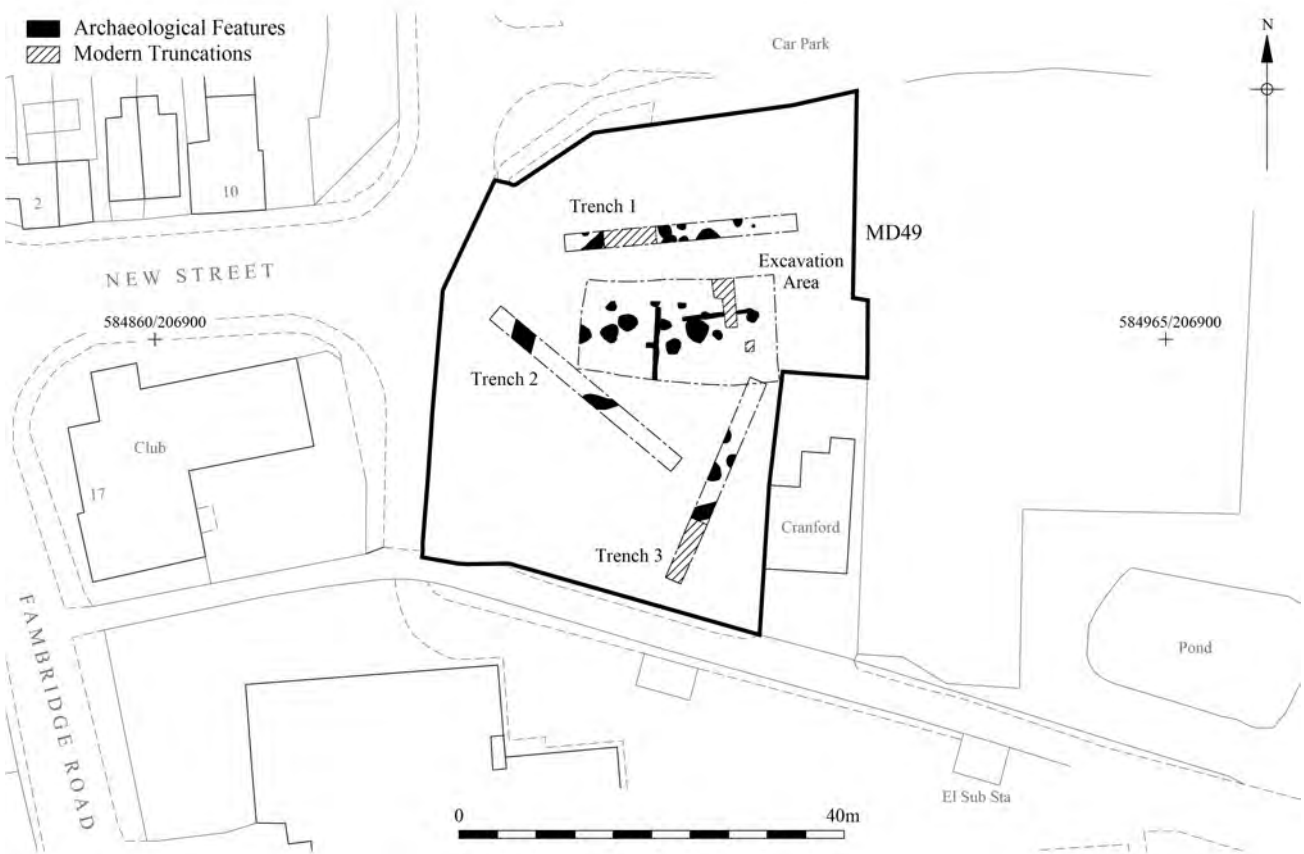
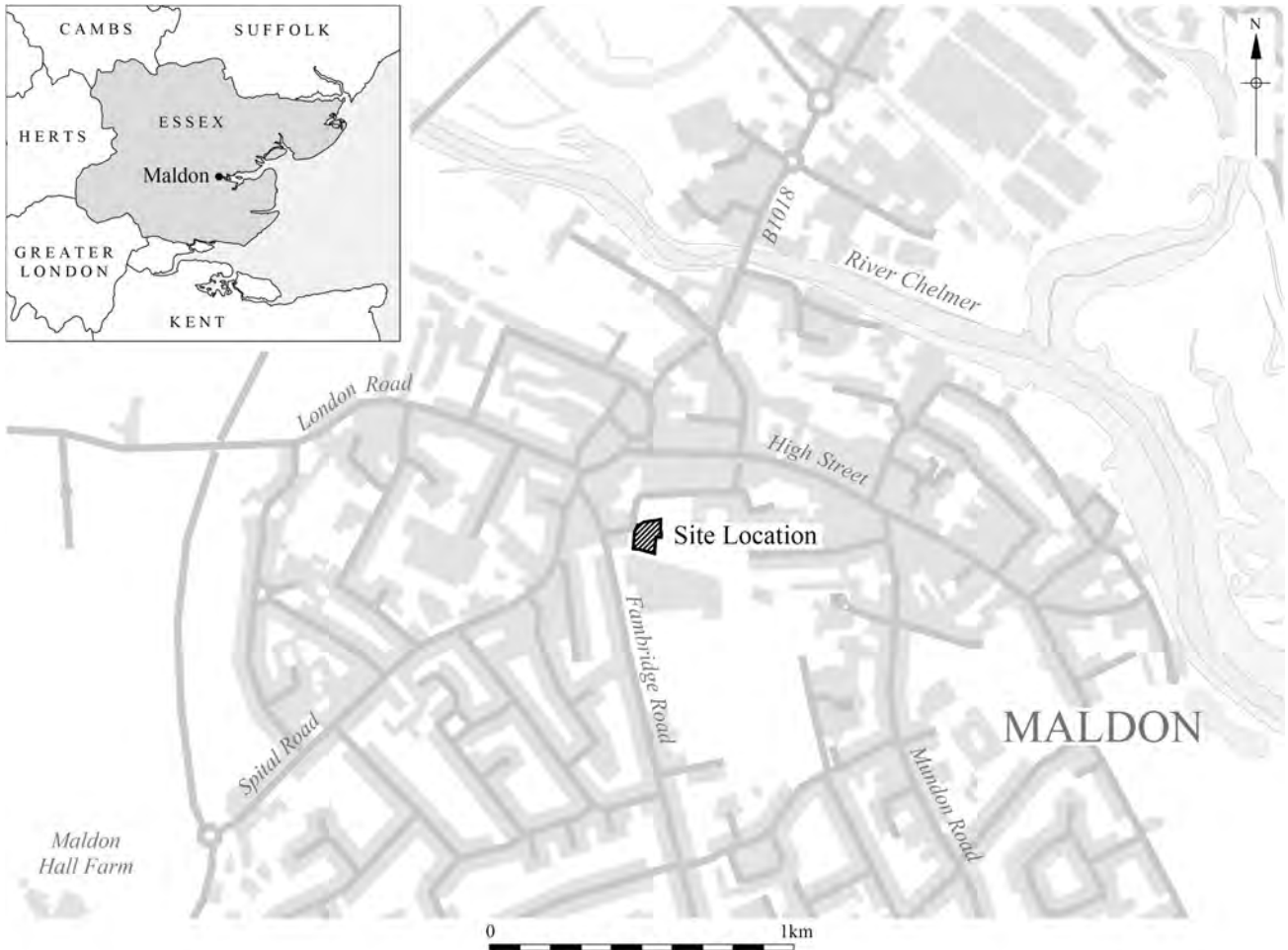


FIGURE 1: Site location  
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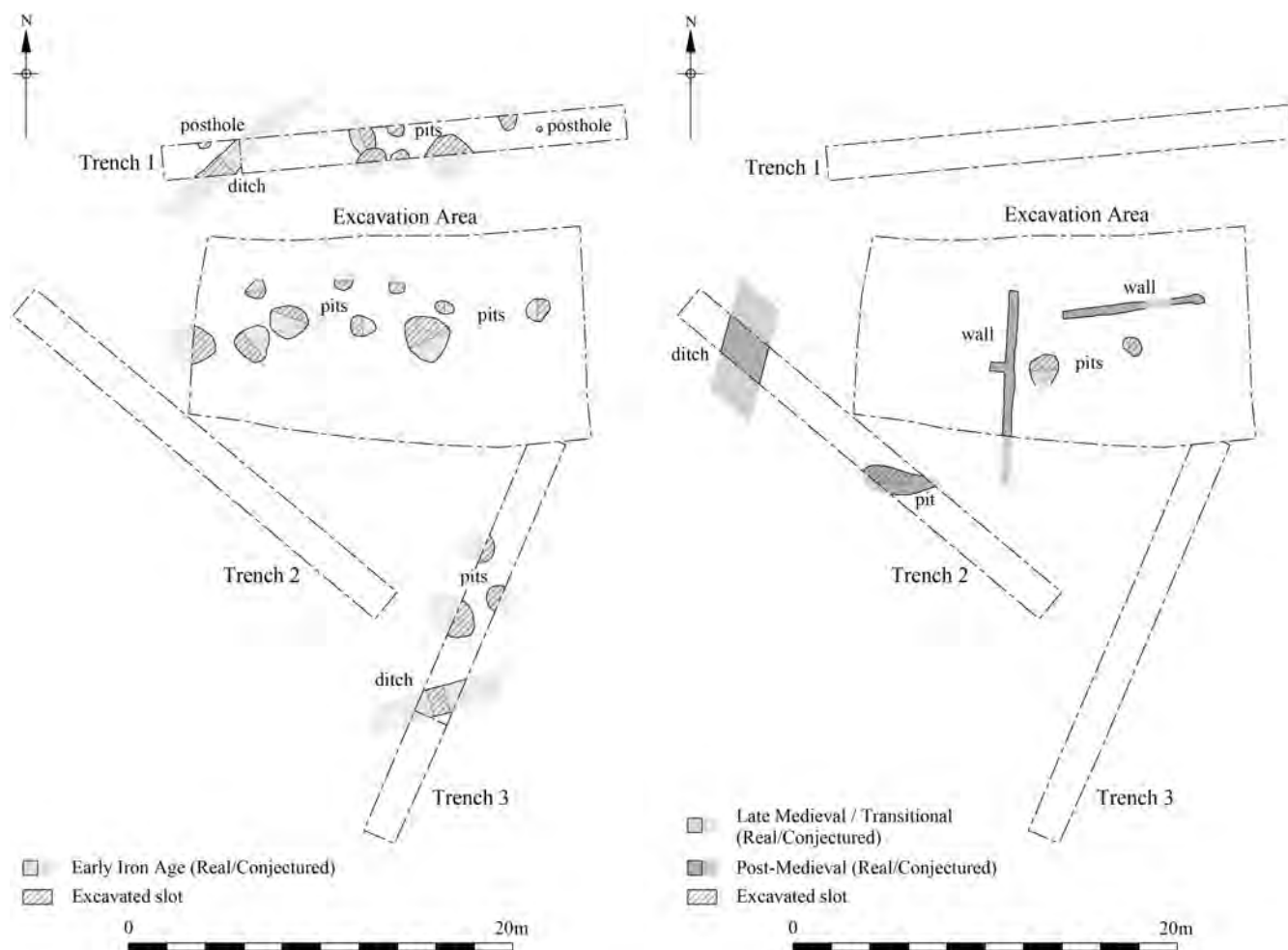


FIGURE 2: Phase plans of excavated features

forming subdivisions within the settlement or the beginnings of subdivided agricultural land on its periphery. Other scattered evidence for the prehistoric agricultural landscape of the Maldon hilltop area has been found nearby at London Road (Robertson 2004).

### Remains associated with the Carmelite friary (c.AD 1300–1550)

Pottery and ceramic building materials analysed by Berni Suds

Activity during the late medieval period was represented by two buried soil layers, which sealed the Early Iron Age features, and two small pits containing pottery and peg roof tile. The location of the site within the grounds of the Carmelite friary of Maldon (1292–1538), as well as the dark, organic appearance of these soil layers, suggests that they may relate to a garden or allotment area within the friary precinct, a normal component of medieval religious houses (Fig. 4). The buried soil layers contained some domestic-type rubbish, including, in the lower layer, jug/ pitcher and cauldron/ pipkin sherds in Central Essex-type red earthenware and the handle of a sandy orange ware jug or pitcher with white slip, together of c. early 16th-century date. Small amounts of residual earlier medieval (broadly late-11th- to 14th-century) pottery (Mill Green Ware, Coarse London-type ware, early medieval sandy ware and medieval sandy greyware) were also present, in addition to

oyster shell, peg roof tile and a single curved ?ridge tile. This, combined with the presence of probable night-soil or hearth waste in the buried soil layers and (intrusively) in some of the underlying prehistoric pits, might best be explained by deliberate deposition of midden material on the monastic gardens to improve the soil. Alternatively, this waste may have been introduced during reworking of the soils in the area after the Dissolution, for example, during construction of 'The Friary' house on the site. Probable 14th-century Flemish-type bricks made from estuarine silt and clay, and other early bricks, including 15th- to 16th-century Tudor 'reds', were also found on the site and probably derive from either remodelling or post-Dissolution demolition of the friary buildings. Skeletal fragments (a prevomer) from an unusually large conger eel (2.75m+ in length), found within the earliest of the soil horizons, provide an interesting insight into the medieval friars' rich diet.

### The conger eel by Kevin Rielly

Congers do not appear in the list of Blackwater Estuary fish published by Chesman *et al.* (2006), which would suggest that the shallow sandy or muddy-bottomed waters do not generally attract this species. However, Kennedy (1954, 359) makes the observation that 'Although congers usually live among rocks they frequently range more widely over adjacent sand or mud, in search of food'. There is therefore no reason why a few congers should not have been present in the Blackwater

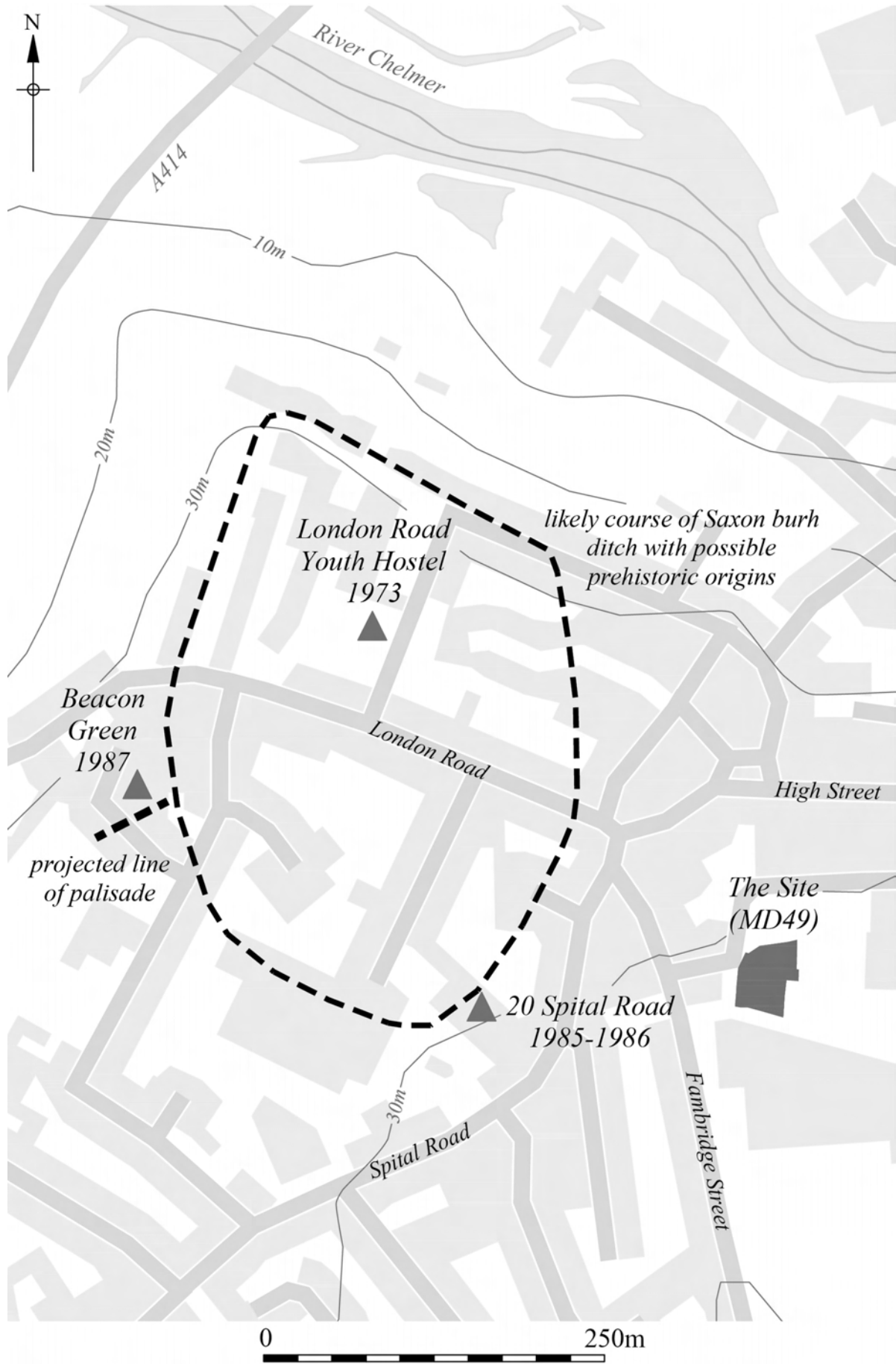


FIGURE 3: The site in relation to nearby Iron Age sites including the projected line of the palisade and the projected line of the Saxon burh

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Estuary in the late Middle Ages, but these individuals would presumably have been of much smaller size than the recovered archaeological specimen, which is estimated to have been at the maximum known size for this species (see Wheeler's observation (1992) that 'Generally those in shallow water are rather small'). This fish would undoubtedly have been a remarkable 'prize catch' and may well have been brought in as an imported, preserved example, before being presented to affluent members of the town community, potentially the Carmelite friars (Philip Armitage, pers. comm.).

### Post-medieval walls

Two wall footings, aligned at right angles to each other and constructed of roughly coursed flints, chalk blocks and reused Caen stone, were cut into the top of the late medieval soil layers. After the Dissolution, the site is thought to have formed part of the grounds of 'The Friary', a post-medieval mansion. The robbed-out walls may represent part of the layout of the gardens associated with this building. The reuse of worked stone from the friary (and possibly other demolished earlier medieval buildings) within the walls provides some information about the architectural make-up and appearance of the medieval friary itself.

### The worked stone

by Kevin Hayward

The post-medieval walls contained a small amount of reused Caen stone, including a mullion window tracery element (Fig. 5). A further moulded chevron element was discovered residually in a modern made ground layer. These fragments are described in detail below:

#### Window tracery element—mullion

A large element 280mm long, 250mm wide and 155mm high (18.9kg) is typical in form to probable mullion fragments belonging to window tracery from the Decorated period (1300–1350). They have a simple chamfered profile with a 30 degree angle and a window slot just 23mm across.

#### Chevron element

A fragment of a small chevron-moulded shaped fragment (arch?) just 70mm wide by 55mm long is comparable in style to 12th-century Romanesque moulds.

Caen stone is a very common medieval stone type, not only for use in ecclesiastical buildings in London (Dyson *et al.* 2011; Hayward in prep.) but also in eastern England, for instance, in Norwich Cathedral and many medieval churches in Ipswich. This stone was also identified in *ex-situ* mouldings found in demolition deposits associated with the Dissolution of Maldon Friary and was especially common in dressings from the friary excavations (Andrews 1999). As such, there is a strong likelihood that one or both of these fragments belonged to the Carmelite friary. This likelihood is enhanced by the architectural decoration. The window tracery is typical of a mullion from the Decorated period (1300–1350). The chevron fragment is of a style that is more probably earlier medieval (12th century) in date and it is possible that it does not relate to the friary. However, caution is required as it is only a small fragment. The mortar attached to the window tracery element may be a relict sandy shelly recipe, quite typical of medieval and early post-medieval constructions throughout London. Thus, it could either be original or relate to the reuse of worked stone fragments from the friary in post-medieval garden walls associated with Friary House following the Dissolution (Isserlin 1999).

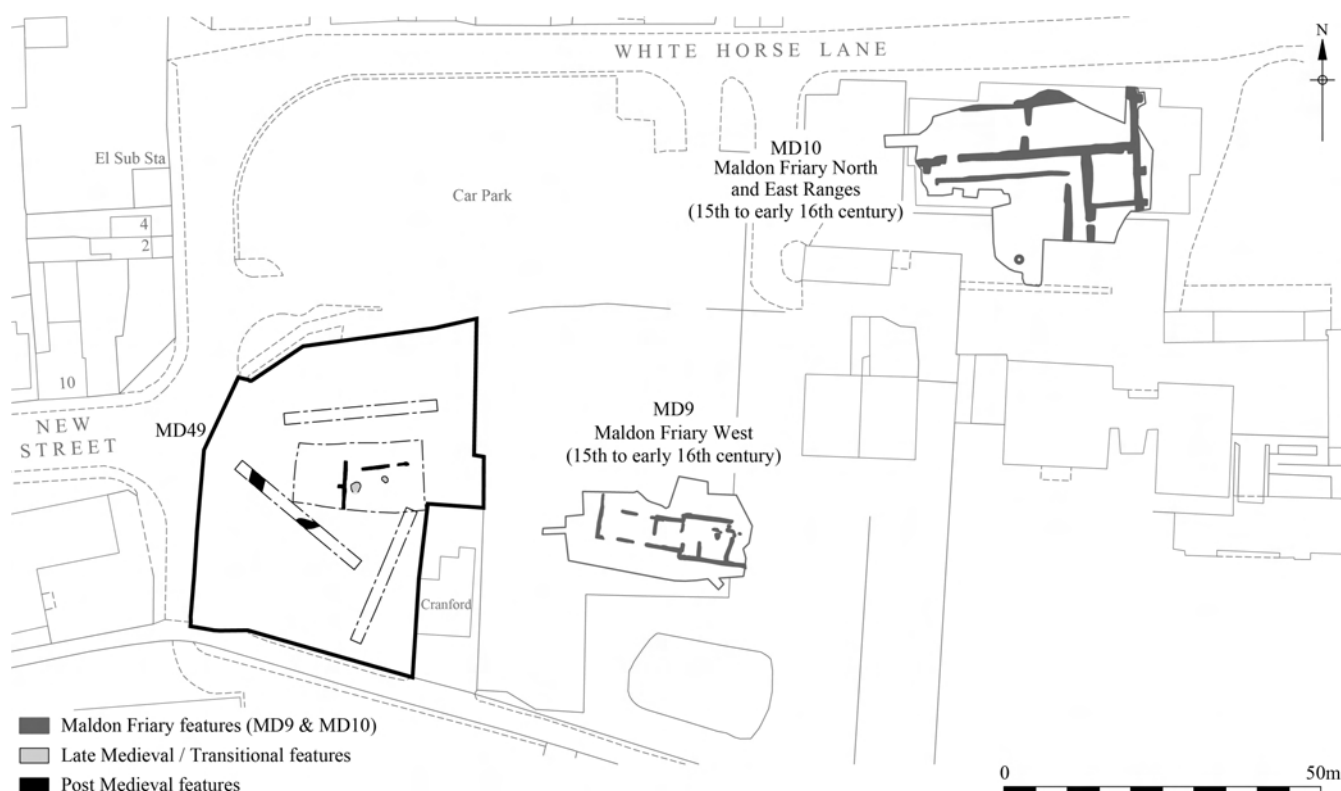


FIGURE 4: The site in relation to the 1990–1991 Carmelite Friary excavations

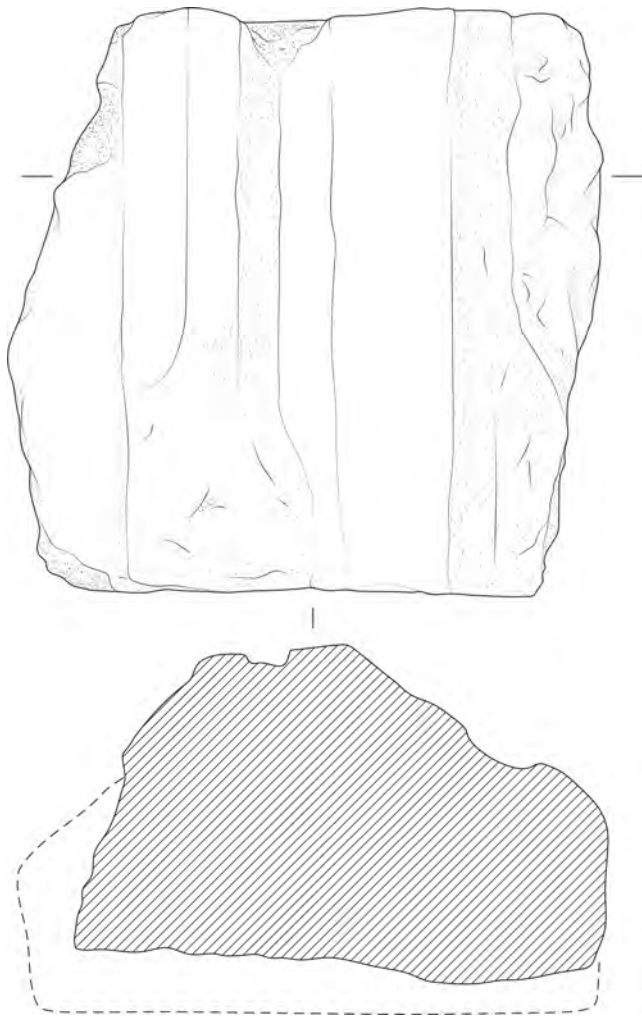


FIGURE 5: Illustration of medieval worked stone fragment

### Acknowledgements

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### Bibliography

- Andrews, D.D. 1999, 'Medieval building stone', in Isserlin, R.M.J., 'The Carmelite Friary at Maldon: excavations 1990–1991', *Essex Archaeol. Hist.*, 3rd Ser., 30, 88–90
- Bassett, S. 1973, Site of the *Former Youth Hostel*, Maldon, Essex, unpubl. Essex County Council report
- Bedwin, O. 1992, 'Early Iron Age settlement at Maldon and the Maldon *'burb'*: excavations at Beacon Green, 1987', *Essex Archaeol. Hist.*, 3rd Ser., 23, 10–24
- Brown, P. 1986, *The Maldon Burb Jigsaw* (Maldon, Maldon Archaeol. Group)
- Brown, N. 1992, 'Prehistoric pottery' in Bedwin, O.R., 'Early Iron Age settlement at Maldon and the Maldon *'burb'*: excavations at Beacon Green, 1987', *Essex Archaeol. Hist.*, 3rd Ser., 23, 15–19

- Brudenell, M. 2012, 'Pots, Practice and Society: an investigation of pattern and variability in the Post-Deverel Rimbury ceramic tradition of East Anglia' (unpubl. PhD thesis, Univ. of York)
- Chesman, B.S., Burt, G.R. and Langston, W.J. 2006, *Characterisation of European Marine Sites: Essex Estuaries European Marine Site*, Marine Biological Association Occasional Publication No. 17 (Plymouth, Marine Biological Association of the United Kingdom)
- Dyson, T., Samuel, M., Steele, A. and Wright, S.M. 2011, *The Cluniac Priory and Abbey of St Saviour, Bermondsey, Surrey: excavations 1984–95*, MoLA Monogr. Ser. 50 (London, MoLA)
- Garwood, A. 1996, *Land off Tenterfield Road, Maldon, Essex*, unpubl. Essex County Council report
- Haslam, J. 2015, 'The two burhs of Maldon, Essex, and their antecedents', *Essex Archaeol. Hist.*, 4th Ser., 6, 312–328
- Hayward, K.M.J. in prep., 'Petrology of the medieval stone from Bermondsey Abbey', in Douglas, A., *Excavations at Bermondsey Square, Southwark*, Pre-Construct Archaeol. Monogr. (forthcoming)
- Isserlin, R.M.J. 1999, 'The Carmelite Friary at Maldon: excavations 1990–1991', *Essex Archaeol. Hist.*, 3rd Ser., 30, 44–143
- Kennedy, M. 1954, *The Sea Angler's Fishes* (London, Hutchinson)
- Morgan-Shelbourne, L. 2015, *Land at New Street, Maldon, Essex: Archaeological Excavation. Post-Excavation Assessment*, unpubl. Pre-Construct Archaeol. report 11903
- Pocock, M. 2005, *New Trees, Wellington Road, Maldon, Essex*, unpubl. Essex County Council Field Archaeol. Unit report
- Robertson, A. 2004, *20–22 London Road, Maldon: Archaeological Excavation*, unpubl. Essex County Council Field Archaeol. Unit report
- Wheeler, A. 1992, *The Pocket Guide to Freshwater Fishes of Britain and Europe* (London, Dragon's World)

### A BOUNDARY DITCH AT LAND SOUTH OF SPRINGFIELDS: CONSIDERATION OF THE EXTENT OF THE ROMAN TOWN AT GREAT DUNMOW IN LIGHT OF THIS AND OTHER RECENT ARCHAEOLOGICAL INVESTIGATIONS

Phillippa Adams and Mark Atkinson

The discovery of the remains of a 2nd-century boundary ditch on land to the south of Springfields in 2011, at a topographically significant location on the southern edge of the historic town core, has prompted a review of the results of other archaeological investigations in Great Dunmow and allows improved definition of the nature and extent of the Roman 'small town'.

### Background

An archaeological evaluation was carried out on a 0.58ha area of land to the south of Springfields, Great Dunmow by the former Essex County Council (ECC) Field Archaeology Unit prior to its residential development (now Kerridge Close). A detailed site report (Sparrow 2011) is held in the Essex Historic Environment Record and in the site archive deposited at the Saffron Walden Museum.

The site is located on the southern edge of the historic core of Great Dunmow town, immediately south of the modern housing development of Springfields (TL 62684 21546; Fig. 1). Its northern edge coincides with a significant break of slope in the local topography and the whole of the site slopes significantly down to the south-west, with a fall of almost 7m. The perceived extents of the Roman settlement at Dunmow lie north of the site.

The Roman 'small town' was sited on an elongated spur overlooking the river crossing, broadly defined by the River Chelmer to the north and a minor tributary to the south. The town was likely concentrated along either side of Stane Street,



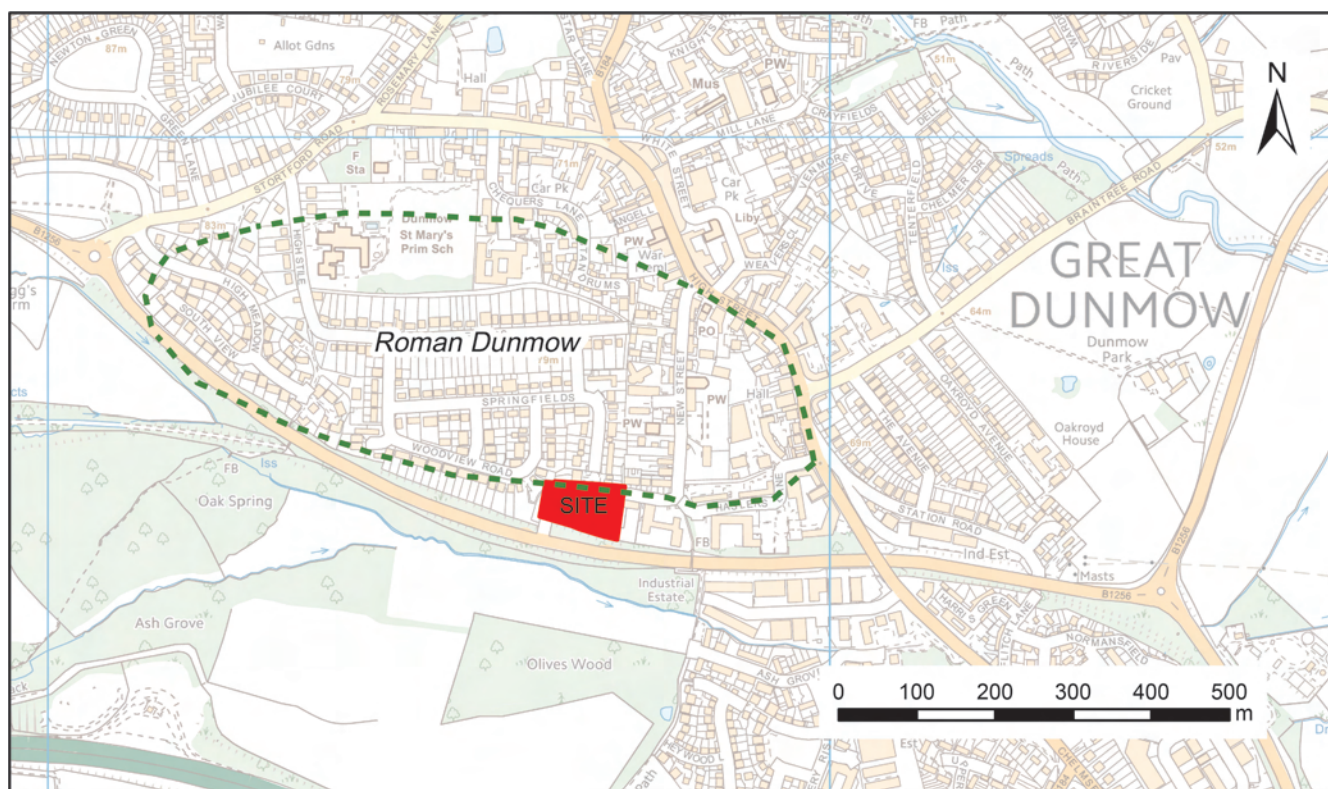


FIGURE 1: Site location  
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the road between Colchester and Braughing, the precise course of which has not yet been determined through the town. Various sites across the town have been archaeologically investigated over the last three decades and found to contain Roman remains, including those along Chequers Lane (Brooks and Holloway 2010; Robertson 2008; Brooks and Wightman 2011; Wickenden 1988), at Redbond Lodge (Robertson 2005) and at St Mary's County Primary School (O'Brien 2007; Phelps 2009; Ennis 2009). These have revealed a range of Roman land-uses, including cemeteries, a shrine, probable roadside enclosure plots and general domestic activity within the settlement; though convincing house plots, presumably located along the roadside, remain elusive.

Closer to the site, there is anecdotal evidence for the disturbance of Roman period remains during the 1970s construction of Springfields. Artefacts of this date have been found during construction along New Street, at New Street Fields and in the vicinity of Haslers Lane. A mid/late 1st-century cremation cemetery, excavated at the former ECC Highways Depot in Haslers Lane in 2002 (Atkinson 2015), lay c.170m to the east and occupied a similar position on the same break of slope as the site south of Springfields. Closest to the current site, and on more level ground immediately to its north, trial-trenching on land to the rear of 60–67 Springfields revealed the presence of residual Roman pottery within a soil layer (Hounsell 2001).

### Fieldwork results

The evaluation of the site comprised seven trenches spread across the development area. All but the northernmost trenches contained only 19th and 20th-century remains relating to its use as a small-holding; these are not further discussed here.

The northern Trenches 6 and 7 contained a substantial ditch of Roman date, aligned west-north-west to east-south-east and established to be in excess of 38m long and 1.5m wide. Its northern edge was not revealed due to the proximity of a dense hedgeline (Fig. 2).

Three segments were excavated across the ditch, revealing it to comprise an original cut [6] and a subsequent re-cut [12] (Fig. 3). The earliest Roman ditch [6] survived to a depth of 1.3m. Although thirty-two sherds of Middle Iron Age pottery, all probably from the same vessel, were found within its upper fills in Trench 7, a sherd of early to mid 2nd-century pottery was recovered from the basal fill in Trench 6 and is unlikely to have been intrusive. The Middle Iron Age pottery is therefore considered residual and conforms to the pattern of residual Iron Age finds as encountered at Chequers Lane (Wickenden 1988) and to the rear of 42b High Street (Brooks 2001).

Ditch re-cut [12] was a considerably shallower feature and positioned slightly further to the south, indicating a slightly shifted boundary. The shift might suggest the presence of an accompanying hedge or slipped bank to the north of the ditch, possibly in a similar location as the current hedgeline along the site boundary. However, this was not confirmed by excavation. The pottery recovered from its two uniform fills dates its infilling to the mid to late 2nd-century. A near complete *mortarium* was found in its lower fill in Trench 6. A stamp and counter stamp to either side of the spout, reading 'NVIVNCL', has been dated to AD 150–160. An urned cremation burial [15] had been deposited within, not cut into, the upper fill of ditch re-cut [12]. Part of a fragmentary greyware funerary jar was retrieved. The burial deposit had been truncated during machine excavation, but historic disturbance was also apparent as the vessel sherds did not display any fresh breaks.

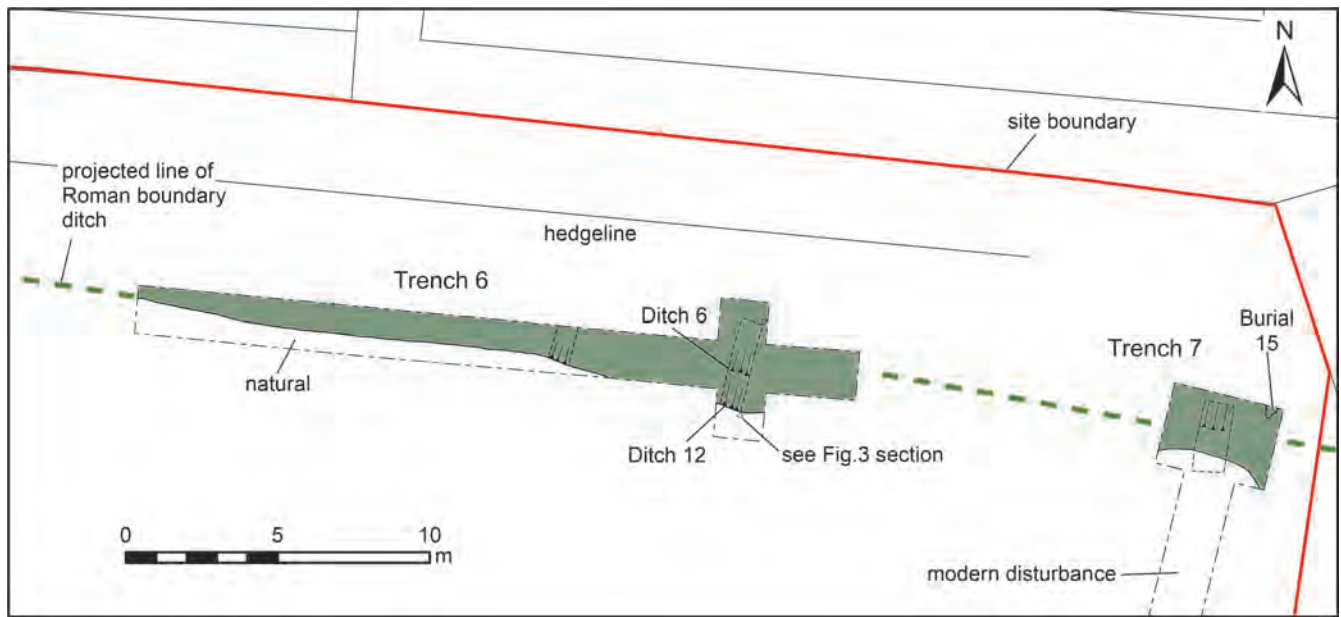


FIGURE 2: Boundary ditch plan

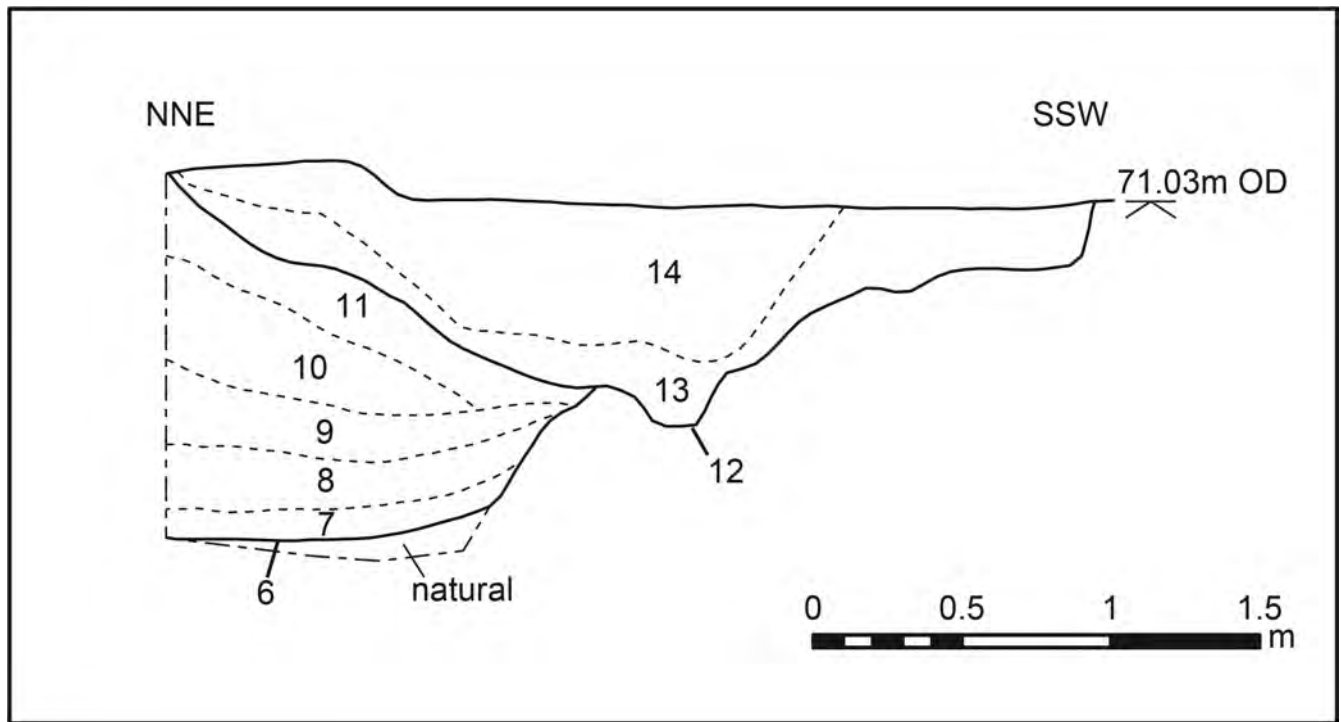


FIGURE 3: Section through boundary ditches [6] and [12]

The ditch would have been a significant feature at this point in the Roman landscape, perhaps originating in the later 1st century and persisting until at least the mid/late 2nd century. Following the 71m contour, it occupied a suitable position to mark the edge of the town's lands being located just below the natural break of slope, where the ground falls away down to a tributary stream of the River Chelmer. Though the presence of a bank was not established, one can reasonably be presumed to have existed immediately above the break of slope. It is tempting to speculate that the soil layer found on the site to the rear of 60–67 Springfields (Hounsell 2001), with its 2nd-century residual pottery, constitutes the disturbed and levelled remains of such a bank.

**Discussion**

The identification of part of the probable southern boundary of the Roman settlement subtly, but significantly, adds to the understanding of Roman Dunmow, at least up to the mid/late 2nd century. It is noted here that there has been little synthesis undertaken of the available archaeological evidence since publication of Drury's Chequers Lane excavation and the accompanying gazetteer of discoveries up to 1986 (Wickenden 1988, 80–5) and Medlycott's Historic Town Assessment for Great Dunmow (1998). As already mentioned a number of significant discoveries, along with some notable negative sites, have been made since. Using the evidence from the South of Springfields site as a starting point, it is possible to begin to

review the previously discovered remains and to make some suggestions as to how the more recently discovered remains contribute to an improved understanding of the nature and extents of the Roman town (Fig. 4).

The boundary ditch found on the South of Springfields site suggests the existence of a defined southern limit to the 'small town', beyond which settlement activity is unlikely to have extended. Indeed, the absence of Roman period features, or even the lack of residual or unstratified Roman artefacts, downslope of the ditched boundary would seem to confirm that settlement activity did not spread beyond its confines. This boundary, though primarily dictated by topographic factors, clearly marked a recognised and perpetuated landscape division. Its association with the apparent placing of a cremation burial in the re-cut ditch as it either gradually silted, or was eventually deliberately in-filled, may serve to emphasise the liminal and possibly sacred significance of what was presumably regarded as the definitive settlement boundary. This aspect is further supported by the presence of the Haslers Lane cremation cemetery in a similarly peripheral position to the east of the site (Atkinson 2015), presumably within or on the recognised settlement perimeter.

While formally regarded as the settlement boundary by the occupants of Roman Dunmow, the entirety of the land enclosed within would not necessarily have been occupied, or even been heavily utilised. Indeed, Roman understanding of what constituted a 'town' is likely to have been markedly different from our own. It is postulated that the land in between this ditch and the conjectured course of Stane Street would have comprised occupation plots fronting onto the thoroughfare. However, no plot boundary ditches or concerted occupation south of Stane Street have yet been recorded—only vague suggestions of Roman land-use are attested by anecdotal evidence from the construction of housing at Springfields, small-scale finds along New Street and the incidental discovery of remains such as the mid-Roman pit at 52 Highfields (Robertson 2005, 194). It remains possible, though perhaps doubtful, that the settlement area south of the road remained largely unoccupied and comprised instead fields, paddocks and other enclosures in which a variety of agricultural, manufacturing, extraction and perhaps rubbish disposal activities were pursued.

The course of Stane Street itself is unsubstantiated through Great Dunmow, with no metalled surface or roadside ditches found to date. Its absence within the Redbond Lodge or St Mary's Summer School excavations (Robertson 2005; Ennis 2009), or at the more recent Salerooms site in Chequers Lane where possible road remains were subsequently determined to be opportunistic use of a natural gravel outcrop as a lesser trackway (Brooks and Wightman 2011), indicates that it lies further south than posited by Drury and Wickenden (1988, fig. 1b). An east to west course not far off that of modern-day Highfields and roughly perpendicular to apparent Roman plot boundaries found at Redbond Lodge is instead suggested (Fig. 4).

On the north side of Stane Street it seems reasonably apparent that occupation plots fronted onto it. The Chequers Lane, Redbond Lodge, Salerooms and perhaps the 2009 Summer School excavations (Wickenden 1988; Robertson 2005; Brooks and Wightman 2011; Ennis 2009) all give insights into the nature of these plots—suggesting relatively

intense occupation and deposition of debris toward their frontages and fringe activities such as religious worship, disposal of the dead and quarrying at their rear.

It has previously been conjectured that the arcing course of the medieval thoroughfare of Dunmow, perpetuated as the High Street and Stortford Road, purposefully avoided the former Roman town and skirted a surviving earthwork that marked a northern boundary (Wickenden 1988, 92). While this may be plausible, a slightly different interpretation is possible on the grounds of proportionality of settlement extent either side of Stane Street.

At Drury's Chequers Lane site, parallel ditches situated 5.5m to 6.5m apart were present that were aligned east-south-east to west-north-west and dated to the late 1st to early 2nd century (Wickenden 1988). These very likely demarcated a routeway running along the rear of occupation enclosures fronting onto Stane Street. More recently, within the Salerooms site immediately to the east, its continuation has been traced as an unsurfaced trackway utilising an outcrop of natural gravel (Brooks and Wightman 2011). It is conjectured that this trackway might have constituted the northern town boundary, being roughly equidistant from the revised position of Stane Street as the southern boundary at the Land South of Springfields site. If this is the case, it is evident that both north and south boundaries seem to be closely associated with funerary activity; at the Salerooms site twenty-three Roman inhumations lay north of the road/track. In light of this conclusion, the northern boundary could be projected further west to enclose the 2nd-century urned cremations revealed during archaeological investigations at St Mary's Primary School (O'Brien 2007), though it is important to note that no evidence of such a boundary has been discovered here to date.

Evidence of gravel extraction and other backland activity has been found to the north of this posited northern town boundary, in Drury's and more recent Chequers Lane sites (Wickenden 1988; Brooks and Holloway 2011; Robertson 2008). It remains possible that an annex or projecting 'backlands' extended further north toward the edge of the downslope most prominent in the vicinity of the Foakes Hall on Stortford Road and indeed accounts for the curious arc of the later thoroughfare. Recent negative excavations on the north side of the High Street (*e.g.* Pocock 2007; Regan 2003) bear out the assertion that Roman period occupation is confined to its south. While the western extents of the settlement are somewhat vague and likely to underlie St Mary's School and housing in the High Stile area of Dunmow town (Wickenden 1988, 80–1), its eastern limits are likely to have been in the vicinity of the junction of Stane Street and the Chelmsford to Thaxted Roman roads (now the top of Braintree Road); remains of a kiln found at 83 High Street may denote processing or manufacturing activity on this periphery (Sparrow 2009).

Clearly, more exacting analysis and interpretation of the results of the last 30 years of archaeological investigation within Great Dunmow, particularly those of the last ten to fifteen years, have the potential to significantly clarify our understanding of the nature and extent of Roman Dunmow and to provide a more coherent framework within which to pursue future research and to add detail to the emerging picture of the Roman settlement.



## Acknowledgements

The investigation of the Land South of Springfields site by the former ECC Field Archaeology Unit was commissioned and funded by Croudace Homes. The archaeological fieldwork was supervised by Phillippa Adams (née Sparrow), assisted by John Hewitt, Paul Springett and Andrew Lewsey. Finds analysis was carried out by the late Alan Jacobs and the figures produced by Andrew Lewsey.

## Bibliography

- Atkinson, M. 2015, 'An Early Roman Cremation Cemetery at Haslers Lane, Great Dunmow', *Essex Archaeol. Hist.*, 4th Ser., 6, 189–234
- Brooks, H. 2001, *An archaeological evaluation rear of 42b High Street, Great Dunmow, Essex*, unpubl. Colchester Archaeol. Trust report 133
- Brooks, H. and Holloway, B. 2010, *Archaeological evaluation and monitoring at 2 Chequers Lane, Great Dunmow, Essex*, unpubl. Colchester Archaeol. Trust report 524
- Brooks, H. and Wightman, A. 2011, *Report on an archaeological evaluation, excavation and watching brief at the Salerooms site, Chequers Lane, Great Dunmow, Essex*, unpubl. Colchester Archaeol. Trust report 535
- Ennis, T. 2009, *St Mary's School, High Stile, Great Dunmow, Essex: Archaeological Summer School Excavation*, unpubl. ECC FAU report 1933
- Hounsell, D. 2001, *Land at the Rear of 60–67 Springfields, Great Dunmow*, unpubl. Herts Archaeol. Trust report
- Medlycott, M. 1998, *Great Dunmow: historic towns project: assessment report*, ECC Planning, Archaeology Section
- O'Brien, L. 2007, 'A Roman cremation cemetery at Dunmow Junior School, High Stile, Great Dunmow, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 36, 71–91
- Phelps, A. 2009, *Archaeological excavation and test-pitting at St Marys Primary School, Great Dunmow, Essex*, unpubl. Norfolk Archaeol. Unit report 1894
- Pocock, M. 2007, *3–61 High Street, Great Dunmow, Essex: archaeological evaluation by trial trenching*, unpubl. ECC FAU report 1752
- Regan, R. 2003, Great Dunmow, Essex. *Evaluation to the rear of 37–61 High Street*, unpubl. Cambridge Archaeol. Unit rep.
- Robertson, A. 2005, 'Roman remains at Redbond Lodge, Great Dunmow, Essex', *Essex Archaeol. Hist.*, 3rd Ser., 36, 194–198
- Robertson, A. 2008, *The junction of Chequers Lane and Stortford Road, and land to the rear of The Chequers, Great Dunmow, Essex: archaeological evaluation*, unpubl. ECC FAU rep. 1872
- Sparrow, P. 2009, 'Roman and medieval remains at 83 High Street, Great Dunmow', *Essex Archaeol. Hist.*, 3rd Ser., 40, 142–155
- Sparrow, P. 2011, *Land South of Springfields, Great Dunmow, Essex: Archaeological Evaluation*, unpubl. ECC FAU rep. 2294
- Wickenden, N.P. 1988, *Excavations at Great Dunmow, Essex: a Romano-British Small Town in the Trinovantian Civitas*, E. Anglian Archaeol. 41

## 'TROUBLE AT MILL': A STUDY OF A 17th CENTURY LEGAL DISPUTE CONCERNING THE FRESHWATER FAMILY AND HEYBRIDGE MILLS.

Kevin Bruce

### Introduction

A series of 17th-century acrimonious legal disputes has revealed a now lost water course and an interesting example of an early water engineering scheme on the rivers approaching Maldon. The study began after finding in a 1649 Parliamentary Survey of the properties of St. Paul's Cathedral,<sup>1</sup> the following statement concerning the value of the Manor of Heybridge Hall:

#### 'Memorandum'

'The aforesaid Mill in the parishe of Heybridge is much daminified by reason of ye want of Water: there having beene two Streames belonging to it: vitz one streame running from

Lanckford Mill: the other streame from Beely Mill, wch time out of mind supplied Heybridge Mill wth water: But by the Tennts of Sir Leventhorpe Francke, have formerly beene diverted from running to ye sd Heighbridge Mill: and have forced pt of the sd water of Lanckford Mill, and wholly the water of Beely Mill to runn through the grounds of the sd Sir Leventhorpe, to the great detriment of the sd Mill, and impoverishing the Lands belonging to the sd Mannor; and p[re]judice of ye inhabitants of the adjacent pts that formerly ground their corne at the sd Mill: but now are necessitated to goe to other Mills further off. Sithence one Mr Crathorne hath bought the sd Lands of the sd Sir Leventhorpe, against whom there has beene a shute Commenced at Law by Mr Freshwater the present Tenant, for the causing of this sd streames to runn in their former Channell: who obteyned a Judgmt against the said Crathorne: and upon the sd Judgment, Mr Crathorne caused the waters to be turned into their former Channell. And so after they continued for the space of three yeares: but through the wilfull neglect of the sd Mr Crathorne, the sd streames runn back againe, and so pass through his owne ground, wherby the sd Mill is worth yearly very little, and like to be of no value.'

### The dispute

The papers for the court case of Freshwater versus Crathorne are in the records of The National Archives, TNA C 108/14. The box contains a large quantity of documents and in the companion box C 108/15 there are many further documents concerning the Freshwater Family which appear to be related to various lawsuits. These include wills, probate inventories, and deeds. All documents used for this study, unless otherwise noted, are from TNA C 108/14. No sub references are given.

John Freshwater obtained a ninety-nine year lease of Heybridge Hall and the Manor in 1564 and it was his great great grandson John that commenced the legal action regarding the mills. The documents consistently refer to 'two ancient water corn mills'. The dispute and subsequent actions went on for many years being passed on from owner to owner.

The Freshwater family were certainly litigious and it was probably beneficial that some members of the family were lawyers. John's uncle Thomas and brother Edward were both established at Lincolns Inn. Edward's father Richard had provided in his will, an annual income to support Edward if he 'shall remove himselfe from either of the sayd Universities (Cambridge and Oxford) to any the Inns of Court att London ... to studdye the law'.

John's case opened with a description of the river system from 'tyme whereof there is noo memory of man to the contrary'. The 'Beely River' (i.e. the Chelmer) was joined by the Langford Backwater just below Beeliegh Mill. A short distance further, there was a natural bank of sand or gravel which enabled a greater proportion of the river water to flow up a small channel called 'Heybridge River' to join 'Langford River' (i.e. the Blackwater) which provided greater assistance to the turning of the mill wheels of the two mills. The rest of the 'joynt river' passed over the bank to continue and flow under Fullbridge in Maldon. The extra water also assisted in the seasonal flooding of the Heybridge Meads to the tenants benefit.

The defendants, at different times Sir Leventhorpe Franck, Thomas then John Crathorne, and Robert Ingham, successive owners of Beeleigh Abbey, maintained that John Freshwater

had artificially engineered the water to 'be driven contrary to their natural course upp the said Heybridge river' and this had led to all the later problems.

The trouble began around 1624 when John claimed the miller of Beeleys Mill, 'in spite & envie to Heybridge Mills . . . , maliciously in ye night time digged away ye damme or Rock of gravell, therby to take ye water from Heybridge Mills'. John attempted to sue the miller but he had fled.

John then in 1625 built up an apron of piles, boards, chalk and rubbish where the bank had been but this was removed. Whether by the force of water or deliberately removed is not clear—'was removed and carried away'. John then set about constructing a more substantial dam at the same spot.

It was said that John Freshwater did 'erect a strong Damme or Stank of great timber piles plankes and other things with a floate att one end of the same adjoining to his owne lands but in such an oblique and winding manner that had the said floats beene levelled soe lowe as the former apron yet it lyeing not even with the currant of the water, the water could not have freely passed over the same.' He went on to raise the float about one foot and extended the piles of both sides of the stank by four foot 'so it was greater than the former apron so forcing the water to run uphill into Heybridge river'.

This action then caused further alleged problems. The water level was 'raised soe high that the Inhabitants of the Country thereabouts and all others who formerly did and might safely have passed through the Foord neare Beely Mills, being the place of their common passage to severall Market Townes neere adjoining, durst not nor could not passe that way without very great danger of drowninge, the waters at Beely Mills being therby raised about 3 inches on the back of the wheles'. This disruption of the highway from Maldon to Witham 'raised a great wrong and grievance to the whole country'.

Complaints against this dam were presented to a court leet at Maldon and also to the Commission of Sewers. Robert Ingham, writing in 1656 to 'his highness the lord Protector of the Commonwealth', said that complaints were presented to the Commission in the years 1625, 1626, 1627, 1629, 1631, and 1641. Ingham claimed that a great part of Beeleigh meadow sank and decayed, and the brickwall belonging to the abbey was endangered, which gave rise to the above complaints. He also reported that the Beeleigh miller was John Brook, and he had dug out the gravel bank for the repair of roads in Maldon when he was surveyor of highways. When prosecuted by Freshwater, Brook 'being of a weak Estate, and not able to hold out so Strong a Contest was forced to leave the country.'

The core problem with this dam was the effect of scouring the banks of the adjacent meadows causing loss of ground. The first breach was in 1628 and it was felt that 'a small matter £5 or £6 would have made it up again' but it was neglected until the breach had grown six times wider than previously.

In July 1629, after Freshwater had made several approaches to the owners and occupiers of the Abbey to make up the breach but despite promises nothing had been done, so he applied to the Commissioners of Sewers. A jury after viewing the breach presented that Sir Leventhorpe Franck, then owner of Beeleigh Abbey ought to make up the breach and to maintain it upon pain of £20. It is recorded that tenants of the Abbey had attempted repairs, 'Burles then living in Beely Abby & farmer

. . . did of boughs & great stakes make there a groyne, to defend ye soyle.' This did work for a while but the scouring returned and remained un-repaired. The Commissioners of Sewers also gave orders for Freshwater to cut the poles lower on his side.

By 1637 Thomas Crathorne owned Beeleigh Abbey with Samuel Bodell as his tenant. John Freshwater first began suing them in 1641. In July 1641 the Commissioners of Sewers appointed a jury of eight or twenty men to make another view of the breach and they presented that Mr Crathorne ought to make up a third of the breach upon pain of a £100 fine. Freshwater was ordered to make up the other two thirds upon a pain of £200 but he claimed that the orders of the commissioners were illegal as they were against the earlier presentment of the jury. He further claimed that it was against law to order him to make good other mens' defects & failings in other mens' grounds and that he would be a trespasser entering such grounds.

He went on to complain of a biased verdict. He was due to have his first case tried at the next Essex assizes with Mr Richard Pully as solicitor and principal orator for Mr Crathorne. Pully also held the position of clerk to the Sewers and 'had such power with the Commissioners' that he procured the order from them 'against Lawe & conscience'. A Mr Wright esq., a Councillor at Law, was then one of the Commissioners and he had protested against this.

Following these events, 'Thos Crathorne did wth £300 charge make upp the sayd breach as substantially as ye wit of man could invent, & that ye extreame force of ye waters is such yt it is broken out againe worse then it was before'. He claimed that Freshwater 'now sues the Deft to cause him to doe an impossible thing.' Freshwater acknowledged that it was true that the breach was made up with timber work at a great charge but it was not finished. Mr Crathorne was living at London and the men he 'appoynted to carrie earth & fill upp ye tymbre worke who neglected the tyme & did it carelessly yt all came to nothing.'

The Crathornes sold Beeleigh Abbey to Robert Ingram in 1653. Freshwater claimed that Ingram knew of the breach at the time of his purchase and that he was obliged to make good the breach so that Ingram had reserved and detained £700 of the purchase money to secure himself against any damage arising. Ingham though claimed to having been 'wholly Ignorant of the premises' when he purchased it. John Freshwater claimed a monetary loss of £200 at that time but later Edward Freshwater put his losses at £400 and that he had also lost six acres of meadow. The actions continued with son Richard and his uncle Edward Freshwater being the plaintiffs.

It is not completely clear what was the final resolution or when it was obtained. A post-Restoration document submitted by Robert Ingham's son and widow speaks of a proposed agreement between them and Edward Freshwater who took on the lease in 1663. They said that by a judgement that it was now impossible to reduce the said river into its ancient course and channel 'thereupon for the quieting of all controversies and differences that have arisen' they were, at their own proper cost and charges within the space of six months to . . . 'erect make and set up upon the lands belonging to Beely Abbey . . . a good and sufficient fence with posts and rails for the prevention of trespasser between the owners, proprietors and farmers of Beely Abby and the owners and tenants of Heybridge hall Heybridge Mills and Heybridge Meades . . . by

their cattle'. It was proposed that both parties should maintain their own sides and that there should be no further damming of the river and that all suits between the parties, 'shall for ever cease'. Edward's response is not known but since those times, the 'Heybridge River' appears to have ceased to be of any consequence as a water course.

### Location of 'Heybridge River' and the 'stank'

So where exactly was this river? The drainage of this area has been considerably altered with the construction of the Chelmer Navigation in 1793 and the water meadows are now under a golf course. A map was submitted during the dispute to assist in the claims but no sign of this is among the papers. Nor is there a map of that date known today. There is unfortunately a dearth of early maps to help identify the location of the dam and 'Heybridge River'. The Chapman and Andrea map of 1777 ought to have been of use but when the map below (Fig.1) was seen, it was obvious that the course of the Blackwater between Langford and Heybridge had been incorrectly drawn on the Chapman and Andrea map.

The earliest map that is of use is by Charles Wedge/Matthew Hall for Rennie's earlier plan for the canal in 1793. This shows the original course of the rivers and gives some clues as to where the 'Heybridge River' may have run.<sup>2</sup>

The position of Freshwater's dam was given in the documents as lying between an eleven-acre meadow of Langford Hall on the north and a six-acre meadow part of Beeleigh Abbey on the south. In 1651 a Thomas Bradbent tenanted two meadows called Great and Little Mill Meadow, five and two acres respectively and he also found himself having to defend himself against Richard Freshwater in 1653. These two meadows presumably equate with the six-acre meadow. The Heybridge meadow was called Lodge Mead containing twenty acres. Unfortunately, neither the Heybridge tithe map award nor the Heybridge Enclosure map of 1805–15 give field names.

The description suggests that the dam might have been where the boundaries of Langford and Heybridge met. The OS map of 1874 clearly shows a water course of some description forming the boundary between Langford and Heybridge though this follows a very winding route.<sup>3</sup> The later Langford mill cut might have met this water course a short distance before entering the Chelmer.

### The landscape today

Elements of this old water course can still be seen in the landscape of the golf course though much has been obliterated. It is more clearly seen on a 1946 RAF aerial photo of the area.<sup>4</sup>

Potentially more significant are the number of stakes that can still be found inserted in the river bed and sides.



FIGURE 1: Based on ERO Q/RUM 1/4 this version of the map has had the proposed canal removed. The final route of the canal made use of the course of the Blackwater river and not between the two rivers as first proposed. Reproduced by courtesy of the Essex Record Office.



FIGURE 2: Possible locations of John Freshwater's dam, the 'Heybridge River' and the likely area of the river where the 'watergate' was built. OS Map Essex 1:2,500 LIV.1 and 2 (1st edn, 1874). Reproduced by courtesy of the Essex Record Office.



There are only a few where the Langford Heybridge boundary stream would have connected to the Chelmer (Fig. 3) but further back, roughly opposite the spur of land running south from Beeleigh Mill, there is a greater concentration of stakes (Fig. 4). Also on the Beeligh Mill side there is evidence of bank repairs or strengthening possibly of the type employed in the 17th century though such methods could be of any date.

The spur of land running from the mill is not shown on the 1793 map and it is possible that it was created following the

work done on the canal. That being the case, the stakes might possibly be at the location of a dam.

The location of the water mill or mills, the subject of the dispute, was said in 1649 to be near to the bridge called 'Heybridge' but the same document only refers to a single water mill. This is almost certainly on the site of the mill demolished in 1955. The reference to 'two water mills' most probably refers to two water wheels within one mill building as there is no evidence for two separate mills.



FIGURE 3: At the possible confluence of the 'Heybridge River' and the Chelmer.



FIGURE 4: Stakes nearer to Beeleigh Mill.

### A further dam?

That the dispute ever came to occur is rather remarkable judging by an agreement made in 1631 between John Freshwater, gentleman, and Christopher Wells of Messing, yeoman,<sup>5</sup> where it was stated:

John Freshwater agrees that, since he has lately erected water-gates on lands of said Christopher Wells, he will repair and maintain fully all the wall or bank belonging to the said lands from the corner next to the lands of William Sidney, in occupation of John Scott, carpenter, along to the other corner lying unto the lands also in occupation of John Scott, called Lodgelees, Groynes thereof shall from time to time always forever repaired, made, kept and maintained sufficiently and substantially to secure, save and keep the Ingrounds of said Christopher Wells from the water'. He further agreed to repair and maintain, at his own costs, 'the Runis, gullings, slides & other decaies' now in the said walls in writing to John Freshwater in the mansion-house called Heybridge Hall; and if the repairs are not effected, then Christopher Wells may pull up the gates timbers etc. and convert them to his own use.'

The location is not known but it cannot refer to the 1625 dam. 'Lodgelees', was most likely Lodge Mead one of the meadows on the Heybridge side. Much of this land towards Beeleigh Abbey estate was held by the Wells family, freemen of Maldon in the 17th century.<sup>6</sup> This points to this structure being closer to Fullbridge than Freshwater's dam. It is possible that

following the initial problems with John Freshwater's dam, he tried at a new location utilising the water courses at the east of his meadows (see Fig. 2). Christopher Wells being well aware of the Beeleigh problems, probably insisted on the above agreement. No other reference to this second dam has been found. Lying in a predominantly tidal area, such a second dam may have been a failure prompting the Freshwater's to pursue their original designs.

Why such an agreement was never entered into with the successive owners of Beeleigh Abbey may never be known but it might have saved all parties a lot of unnecessary and costly legal disputes. That the Freshwaters managed to obtain judgements in their favour is perhaps surprising. The problems with damage and erosion of the meadows were all the result of John Freshwater having artificially impeded the natural flow of the Chelmer.

### Endnotes

- 1 LMA CLC/313/L/F/012/MS25631 p.196
- 2 ERO Q/Rum 1/4
- 3 OS Map Essex 1:2,500 LIV.1 & 2 (1st edn., 1874)
- 4 106G/UK.1496.10MAY1946 4019
- 5 D/DU 136/3
- 6 Information from John Smith and from Petchey, W. 1991, *Prospect of Maldon*.



## Book Reviews

**ENGLAND'S COASTAL HERITAGE: A REVIEW OF PROGRESS SINCE 1997** by Peter Murphy, 2014 English Heritage, London, ISBN 978-1-84802-107-5

This book reviews the archaeology of the English coast setting out the current state of knowledge and understanding and future research and management issues. It reflects the remarkable range of fieldwork, notably the English Heritage-funded, Rapid Coastal Zone Assessment Surveys (RCZAS), carried out since publication of the seminal book 'England's Coastal Heritage' (Fulford *et al.* 1997). It is interesting to note that this new review appears fifteen years after the earlier book, since fifteen years has become the customary interval between major reviews of the archaeology of Essex (Brown 2012). The book is attractively produced with numerous clear, and often very striking, colour photographs, plans and diagrams which illustrate and enliven the text. Although it covers the chronological range of human activity in England from the Palaeolithic to the end of the 20th century, it is essentially an archaeological study, and archaeology is rightly considered in a broad sense to include built heritage. That said, it should be noted that fishing villages, ports and seaside resorts *etc.* are scarcely covered. That is unsurprising since the volume is very much aimed at an understanding of present and future coastal management options. Those options are very different in built-up areas, than for most of the coast which is 'open' in character.

The book is very much based on recent work and it is important to note that it '...highlights, some interesting but lesser known sites, and especially sites threatened with erosion.... Inevitably, this will lead to omission of some well-known and even iconic coastal historic assets.' (page 47); otherwise the absence of a number of famous sites would seem strange. The RZCAS reports are a key part of the volume's information base and it is helpful to have them listed and referenced at the front of the book since they are not formally published and are best accessed digitally. The book is organised in six chapters: *1 Introduction to the coastal historic environment*, sets out the geographical and other parameters of the study and usefully identifies '...three fundamental ways in which the coastal historic environment is distinctive. First, there are types of archaeological sites, buildings and landscapes that are confined to the coast and do not occur elsewhere.... Secondly, there are archaeological sites that are certainly present inland but are very rarely exposed...buried deeply beneath later deposits. Erosion on the coast makes them unusually visible and accessible... Finally, there are formally terrestrial sites now under the sea...submerged by rising relative sea level.' (Page 2); *2 Survey, recording and characterisation in the coastal zone* provides an overview of recent work; *3 Coastal change* describes the key factors, notably climatic change, which have shaped and are shaping the coast; *4 The coastal historic environment* outlines the current state of knowledge; *5 Research priorities* sets out key research issues, which are also usefully summarised, on

a regional basis, in an appendix; *6 Managing England's coastal heritage* describes and discusses current and future issues and options.

Given both the significance of the archaeology of the Essex coast and the author's close involvement with it over many years it is unsurprising that Essex sites and deposits are mentioned throughout the book. It is good to see that the chapter on Research precedes that on Management. As someone who has long been involved in the research and management of the historic environment that seems to me to be the right order, since research is about understanding, and you cannot manage what you don't understand. Whilst professional involvement is and will continue to be vital the reader is left in no doubt about the importance of amateur involvement '...in the longer term regular monitoring by professional archaeologists is unlikely to be practicable or affordable widely,... Involvement of avocational groups is the obvious solution' (page 146) and 'In the light of the new political climate the volunteer tradition needs revisiting, resuscitation where necessary, and support. This is nowhere more needed, or easier, than at the coast' (page 148).

This clearly presented and well-argued volume, read in conjunction, with Peter's earlier more detailed book (Murphy 2009) will provide any reader with a clear appreciation of the nature and significance of the archaeology of the English Coast.

### References

- Brown, N. 2012, 'Preface' *Essex Archaeol. Hist.* 3, 4th Ser., v-vi  
Fulford, M, Champion, T. and Long, A. 1997, *England's Coastal Heritage: a survey for English Heritage and RCHME*, English Heritage Archaeol. Rep. 15 (London)  
Murphy, P. 2009, *The English Coast: A History and Prospect* (York, Continuum)

Nigel Brown

### THE SECRETS OF THE MOUND: MERSEA

**BARROW 1912-2012** (revised edition) by Sue Howlett, Mersea Island Museum Trust, West Mersea, 2013, 80pp, 4 figures, 20 plates, ISBN 978-0-9537322-3-4, £6.00

Mersea Barrow was the last resting place (if that is not an anachronistic concept) of a member of what we might style the Romano-British rural gentry. He died in the high noon of empire in the second half of the second century AD and his cremated remains were buried beneath the imposing monument that is Mersea Barrow.

This booklet was written to celebrate the one hundredth anniversary of the excavation of the tumulus in 1912 by S. Hazzledine Warren. A plate shows him in 1931, complete with walrus moustache and plus-fours. However quaint and dated the man there appears, we should not be misled as to his ability as field archaeologist and scholar. Conduct of the dig was exemplary and far ahead of its time, as was the prompt publication of the results. The booklet begins with an account of the dig itself. Using both the published report and archive

material in Colchester and Mersea Island museums, Sue Howlett gives a detailed account of just how an excavation was conducted in those days, even down to the time of the train that delivered Warren to Colchester. She quotes extensively from correspondence of the time. We read how Warren stayed in a temperance boarding house on Mersea Island for the duration of the dig. One wonders if there are any such places left. When he needed to contact Arthur Wright at Colchester Museum it was done by postcard or letter, and at times of high drama by telegram. No emails or mobile phones in those days. And people had manners then: in one of these letters to Wright, Warren apologises for writing in pencil (because he was on site with no pen to hand). Transport of the finds to Colchester Museum would have been by horse and cart had not Dr Philip Laver intervened and offered the services of his motor car. The offer was accepted, although Warren viewed the advent of the motor car in general with horror. This account of the 1912 excavation is a valuable piece of social history that sheds real light on the history of archaeology in the county. And when visitors flocked to the barrow at the end of the excavation, they included a delegation of Christian missionaries from the Congo. This is an age that has vanished into the night.

The history of the management, and indeed the occasional mis-management of the barrow is described in detail from 1912 to the present day in Part Two. Its fortunes were at their lowest ebb when the barrow was used as a chicken pen. In 1958 the dismal condition of the barrow even prompted a question in the House of Commons. Eventually, local initiative on the island saved the day but the financial burdens of monument maintenance proved too onerous and in 1975 ownership was transferred to Colchester Borough Council. Coverage of the barrow on television is also discussed. We even learn that it found its way into a list of most haunted sites in *The Independent* newspaper, based on no more than invented folklore in Sabine Baring-Gould's Mersea Island novel of 1880, *Mehalah*.

Part Three addresses the archaeological significance of the barrow. The Mersea Island Museum Trust took the enlightened view that the best way to mark the anniversary of the 1912 excavation was to increase the sum total of knowledge by research. Sad to relate, this worthy ambition has now been forsaken by at least one other museum service in the county that should have known better. A report was commissioned by the Trust to examine afresh the list of botanical specimens collected by Warren. Of necessity it was a paper exercise because the original material had been lost after the disbandment of the Passmore Edwards Museum in 1998, an episode Howlett reports with restraint and tact. As if that was not enough, thousands of pounds were raised from local residents of the island and national grant-giving bodies to recruit specialist expertise to tease more knowledge out of the cremated remains. It emerged that the deceased was an adult male much given to strenuous walking or running who had suffered from a joint disease not apparently attested in other cremations (McKinley 2014). Even more remarkable is the story behind the sticky matter coating the bones. It turned out to be resinous materials that included frankincense which had been applied to the bones after cremation. Frankincense has only been identified from sites in Egypt, Nubia and the Yemen where the parent trees are found naturally. Clearly the results of this work are of truly international significance, and

they have now been published in full (Brettell *et al.* 2014). As if that was not enough, the preparation of the booklet was the catalyst for a major reappraisal of the barrow, its finds and the funerary rites (Benfield and Black 2014). Howlett had access to all three reports prior to publication and has made good use of them in her text to leave it bang up to date.

The booklet is generously illustrated with figures and plates. Some were taken from the original report by Warren. Others illustrate the barrow and its finds at various points in their modern history. None is more evocative than the colour image on the back cover showing the barrow under snow in 1987. Many of these images have never appeared in print before.

In this excellent booklet the Mersea Island Museum Trust has punched well above its weight. It is aimed primarily at a lay audience with no previous knowledge of archaeology but that should not allow it to be overlooked by scholarship. It is written with a clarity that puts some professionals to shame and with the modesty that becomes a scholar. Howlett has made full use of her knowledge of the island and its residents. Very many hours of sustained research into archives and published source material must have been undertaken to give so comprehensive a portrait of a field monument. The story of Mersea Barrow is told from every conceivable perspective, taking in folklore, the excavation and its background, the subsequent history of the monument, the curation of the finds and the results of recent research on the finds, funerary rites and structure of the barrow. This is arguably the most well-rounded account of a surviving field monument in the county.

## References

- Benfield, S.F. and Black, E.W. 2014, 'The West Mersea Roman barrow (Mersea Mount)', *Essex Archaeol. Hist.*, 4th Ser., 4, 59–73
- Brettell, R.C., Stern, B. and Heron, C.P. 2014, 'Mersea Island barrow: molecular evidence for frankincense', *Essex Archaeol. Hist.*, 4th Ser., 4, 81–7
- McKinley, J.I. 2014, 'Mersea Island barrow: the cremated bone and aspects of the mortuary rite', *Essex Archaeol. Hist.*, 4th Ser., 4, 74–80

Paul R. Sealey

**CHEPYNG WALDEN: A LATE MEDIEVAL SMALL TOWN—SAFFRON WALDEN 1438–1490** by Elizabeth Allan (Saffron Walden Historical Society Publications, 2015, 1–218 pp, illustrations and index, ISBN 978-1-873669-15-0). £1

Saffron Walden is one of our better preserved and more legible historic towns. The nucleus of the settlement is a ridge between two streams where there stands the castle, originally with an inner and an outer bailey enclosing a keep, now reduced to a stump of masonry, and the church. On the hillside is the market place with rows of infill buildings, and round it all a wider ditched enclosure, the *magnum fossatum*, of which only a small portion survives, and within which there is evidence of planned settlement. Excavations have been carried out or monitored since the 19th century and have been comprehensively summarised by Bassett (1982) who reviewed the archaeological evidence for the town's development. The town is also well documented, with long runs of court rolls, many deeds and wills, and, rare for Essex, churchwardens' accounts. Two short studies by Cromarty (1966, 1967) based on these sources present a valuable picture of the medieval town and its fields. Whilst the broad outline of the town's

development is relatively clear, there are many problems of detail: the nature of the Roman and Anglo-Saxon settlement that existed in the valley; the date of the foundation of the castle; the date of the planned town and of the privileges, including burgage tenure, contained in a charter of confirmation of c.1200; and the sequence of construction of the church, which was not as simple as a contract of 1485 might suggest (*cf.* Byng 2015). Although there has been continuing development-led excavation in the town, there has been little recent historical research, so Elizabeth Allan's new book is welcome, and the Saffron Walden Historical Society are to be congratulated on an attractive and well-illustrated publication.

The book derives from a Leicester University PhD. It is based on sample periods of the court rolls, though the method is never very explicitly defined. Saffron Walden is what historians and archaeologists consider a small market town, a category which gives them problems as they are less visible in the documentary and excavation records, and there is a suspicion that they did not behave or develop in the same way as larger places and cities. A lengthy introduction is devoted to this subject in the context of wider studies of medieval towns, and sets an agenda for the rest of the book. In the process, Saffron Walden is successfully defined, were it necessary, as a fully developed urban place, possessing adequate criteria such as a hinterland, a population of about 1,500–2,000, rising to 2,500 in the 16th century, a wide diversity of occupations, at least twenty-three in number, extensive trade links, and an identifiable urban elite soon to have a role in self-government.

Analysis of the lay subsidy returns of 1327, 1334, and 1524/5, show that Saffron Walden progressed from a position of average or modest wealth to being one of the more prosperous towns of its region by the 16th century. This happened without there being evidence for it having a significant cloth industry on the scale of other places in north Essex and south Suffolk, though cloth may have been more important than the evidence suggests. The town is however revealed as a place with an active land market, little restricted by notional manorial control, with evidence for people outside the town holding property there. Merchants and tradesmen had links with other towns as far afield as London. Leatherworking was an important trade, as was dyeing. The latter had been highlighted by Cromarty in a map showing dyehouses concentrated round the outer bailey in Castle and Museum Streets by c.1400. Saffron remains somewhat mysterious, or difficult to assess. More important for medicines and cooking rather than dyeing, it was a high value crop that could be grown on small plots of land, and which was in demand from as far away as London. Its cultivation seems to have flourished at Saffron Walden from the second half of the 15th century, and lasted into the 18th.

The increase in prosperity by the 16th century had not been a straightforward linear progression. There had of course been the Black Death and the rebalancing of the economy which followed it. In 1425, the burgesses refused to elect a bailiff of the market on the grounds that its revenues were insufficient to sustain the post. In the middle and third quarter

of the 15th century, there was a depression reflected in levels of debt, land market activity, property prices and rents. The indicators are partial and complex. The records often seem too fragmentary to sustain more than an anecdotal and illustrative picture of urban life and the economy, rather than fully worked through arguments. But the evidence is interesting in the context of the historical debate about the condition of towns in the late Middle Ages and to what extent they underwent a depression. This is a question that seems to have left its mark on the archaeological record, in for instance the absence of late medieval finds in many places where the Currently Occupied Rural Settlements research programme has carried out test-pitting, or at Saffron Walden in an apparent lack of 14th- and 15th-century occupation revealed by excavations in the marketplace (Andrews *et al.* 2002).

The building of the parish church can be seen to reflect a stuttering economy. The churchwardens' accounts do not provide an entirely clear picture of the construction sequence of this, the most magnificent Perpendicular church in the county. There is no attempt to unravel its story in this book, but phases of work are highlighted. It began 1439–46, with the chancel clerestory and perhaps the tower. There was a gap until 1459/60 when there was work on the north chapel, and then again until the south porch was built 1466–67. In 1485, the well-known contract was signed with Simon Clerk, master mason at King's College, Cambridge, and John Wastell. This saw the remodelling of the nave, something only accomplished over the next thirty years or so. The work was funded mainly by street collections for church ales or 'Mays', collections in church, gifts, and legacies.

The rebuilt church was a considerable achievement, largely the responsibility of the wardens, sometimes augmented to three in number, but evidence of a high degree of organisation within the community. Allan looks for, and finds, increasing evidence for oligarchical government of the town, for control being in the hands of the wealthier inhabitants. This is discernible in the foundation in 1400 of the Guild of Our Lady of Pity, which established the almshouses, and had twenty-four trustees from amongst the 'stronger' and 'most worshipful' of the population. The road to full self-government had, however, to wait until the granting of a borough charter in 1549, a better documented period, the history of which remains to be written in detail.

## References

- Andrews, D.D., Mundy, C., and Walker, H. 2002, 'Saffron Walden: the topography of the southern half of the town and the marketplace', *Essex Archaeol. Hist.*, 3rd Ser., 33, 221–273
- Bassett, S. R. 1982, *Saffron Walden: excavation and research 1972–80*, Chelmsford Archaeol. Trust Rep. 2/Council Brit. Archaeol. Res. Rep. 45
- Byng, G. 2015, 'Modelling patronage: the chronology and financing of the Perpendicular work at St. Mary, Saffron Walden', *Essex Archaeol. Hist.*, 4th Ser., 6, 329–343
- Cromarty, D. 1966, *The fields of Saffron Walden in 1400*, Essex Record Office
- Cromarty, D. 1967, 'Chepyng Walden 1381–1420. A study from the court rolls', *Essex J.* 2, 105–109



# A Bibliography of journal literature on Essex archaeology and history for 2016

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**Andrew Phillips and Paul Sealey**

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Both monographs and periodic literature are included; articles published in festschrifts or in journals which are devoted exclusively to Essex history (e.g. Essex Journal) are not included. Items overlooked in previous bibliographies are included for comprehensive coverage.

Baldwin, O. and Wilson, T. 2016, 'John Arnold, Philo-Musicae of Great Warley, an 18th century musical enthusiast', *Musical Times* (Spring 2016), 1–16

Beale, S. 2016, 'John Leming and the High Court of Chivalry: urban ideas of social exclusivity in early Stuart Colchester', *Local Historian* 46, (2), 116–128

Crummy, N.C. 2016, 'A hoard of military awards, jewellery and coins from Colchester', *Britannia* 47, 1–29 [buried AD 60 in the Boudican Revolt]

Holman, D.J. 2016, 'A new classification system for the flat linear potin coinage', *Brit. Numis J.* 86, 1–67 [includes Essex]

Pitts, M. 2016, 'The Meaning of Mucking', *British Archaeology* 147 (March 2016), 14–21

Sealey, P.R. 2016, 'Where have all the people gone? A puzzle from middle and late Iron Age Essex', *Archaeol. J.* 173 (1), 30–55

Williamson, T.M. 2016, 'The ancient origins of medieval fields: a reassessment', *Archaeol. J.* 173, 264–87 [Pages 271–9 discuss the ancient field systems in the Dengie peninsula of Essex]

## 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](http://www.eaareports.org.uk)).
5. It is essential that these Guidelines and style conventions are followed, and in particular 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	<b>INTRODUCTION</b>
Sub-heading	12pt, bold	<b>Excavation</b>
Sub-sub-heading	12pt, italic	<i>Pottery</i>
Sub-sub-sub-heading	12pt	Iron-Age

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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.
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### 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*.

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1. The Bibliography should normally be the last heading in the article, with the items arranged in the following format.
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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/Monographs:

- 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*

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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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