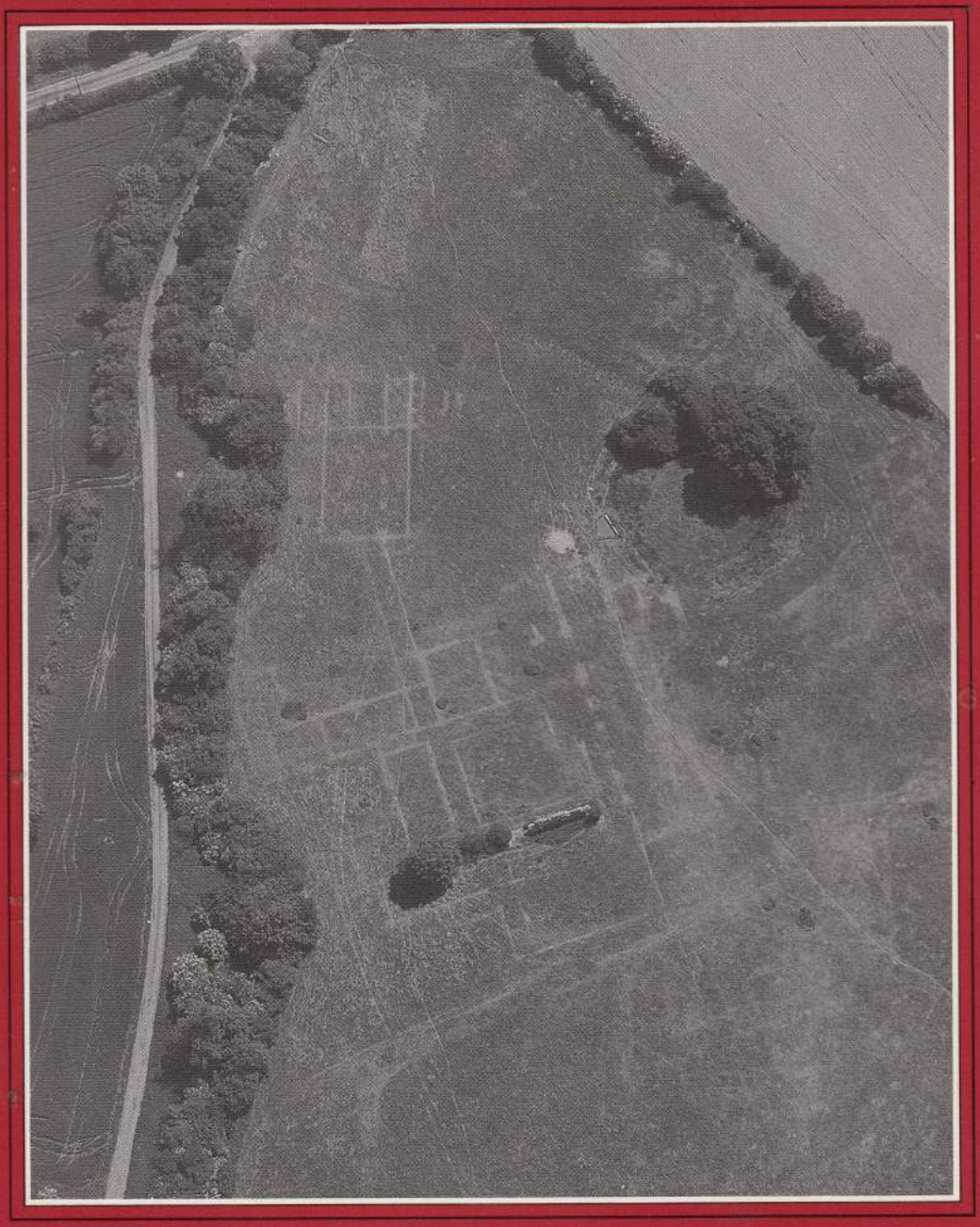
ESSEX

ARCHAEOLOGY AND HISTORY



TRANSACTIONS OF THE ESSEX SOCIETY

FOR ARCHAEOLOGY AND HISTORY

Volume 28

1997

ESSEX

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THE TRANSACTIONS OF
THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

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1997

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THE ESSEX SOCIETY FOR ARCHAEOLOGY AND HISTORY

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 the history of the historic county of Essex.
(2) In furtherance of the above to publish the results of such studies in *Transactions* 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 benefits of members and interested members of the public; to educate the wider community in the archaeological and historical 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.

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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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Cover illustration: Aerial photograph of parch marks at Tilty Abbey in 1996 (see Work of ECC Archaeology Section 1996). North is to the bottom of the photograph.

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Middle Bronze Age occupation at Great Wakering

by K. Reidy

A small excavation carried out in advance of development revealed two field systems. One dated to the Middle Bronze Age; the other was of medieval or later date. Artefactual evidence of a Middle Bronze Age site destroyed by the quarrying were recovered to the south of the development area. The evidence from Great Wakering is comparable with the Middle Bronze Age field system and settlement at North Shoebury.

Introduction

The site is located on the Southend peninsula immediately south of Great Wakering adjacent to a disused World War II anti-aircraft gun emplacement (TQ 940 870: Fig. 1). The excavations were undertaken in advance of construction work by Higgs and Hill Homes Ltd and were carried out in two phases, consisting of an evaluation by trial trenching in May 1994 (Reidy 1994) followed by an area excavation in August of the same year. As well as the investigation of the surface archaeology, test pits were dug under the supervision of Dr. D. Bridgland to investigate the underlying Barling Terrace gravels and any evidence of human activity therein (Bridgland 1994).

Great Wakering is situated on the wide, flat terrain to the north of the Thames estuary on a low-lying spur separating the Thames from the marshlands at the mouth of the river Roach. The geology of this area comprises London Clay, forming the bedrock, overlain by sheets of fluviatile gravel (the Barling Terraces formed by the ancient Thames/Medway river system) and, above this, a clayey silt deposit widely known as brickearth. This deposit forms the immediate substrate at the Great Wakering site, where borehole records show its thickness to be 2-3 m. In the areas to the west and south of the gun emplacement, however, the brickearth has been quarried away, leaving a lowered surface above gravel, sometimes with variable made ground by way of thin backfill. However a small area to the east of the site was undisturbed and it was in this area evidence of archaeological activity was recovered.

The deep brickearth that covers the Southend peninsula is very fertile and so made an attractive region for settlement from the Neolithic onwards, thus making the area one of considerable archaeological importance. Situated 500m north-east of the site was an area excavated in 1984 which produced archaeological evidence dated to the Middle Bronze Age to Middle Iron Age and Roman periods (Crowe 1984).

Significant archaeological remains were also found at North Shoebury about 1km south-east of the site; these included Middle Bronze Age settlement, a Late Bronze/Early Iron Age field system and possible round house, as well as some later Iron Age activity (Brown 1995).

In addition, cropmarks to the south-east of the site represent a linear feature and a ring ditch (Essex Site and Monuments Record (ESMR) number 11158); to the west, cropmarks of an enclosure have been observed (ESMR 11157).

The Thames/Medway gravels over which the brickearth lies are important for our understanding of the palaeoenvironment in Essex, while the Barling terrace on which the site lies has produced Palaeolithic and Mesolithic flint implements. This evidence is discussed in the evaluation of the Pleistocene (Ice Age) deposits (Bridgland 1994).

Excavation

Investigation by machine revealed that the areas to the south and north of the gun site had been destroyed by quarrying and the southern area subsequently backfilled to a depth of over two metres. On the disturbed surface to the south lay a large quantity of burnt flint and some large sherds of prehistoric pottery. One of these sherds could be dated to the Middle Bronze Age since it was decorated with an applied cordon typical of that period. That such friable pottery had survived the process of brickearth quarrying suggests there was originally a large quantity of pottery in the area, implying that a Middle Bronze Age site of some sort has been destroyed.

Two test pits to investigate the underlying geology were dug by machine and recorded (Fig 2; TP1 and 2). Test pit 1 lay the north of the gun emplacement and revealed the gravel deposits below the quarried brickearth. Test pit 2 was excavated to reveal the remaining brickearth to the east of the gun site. Sections were drawn, written descriptions made and samples taken.

The only undisturbed area was to the east of the gun emplacement. Initially four evaluation trenches

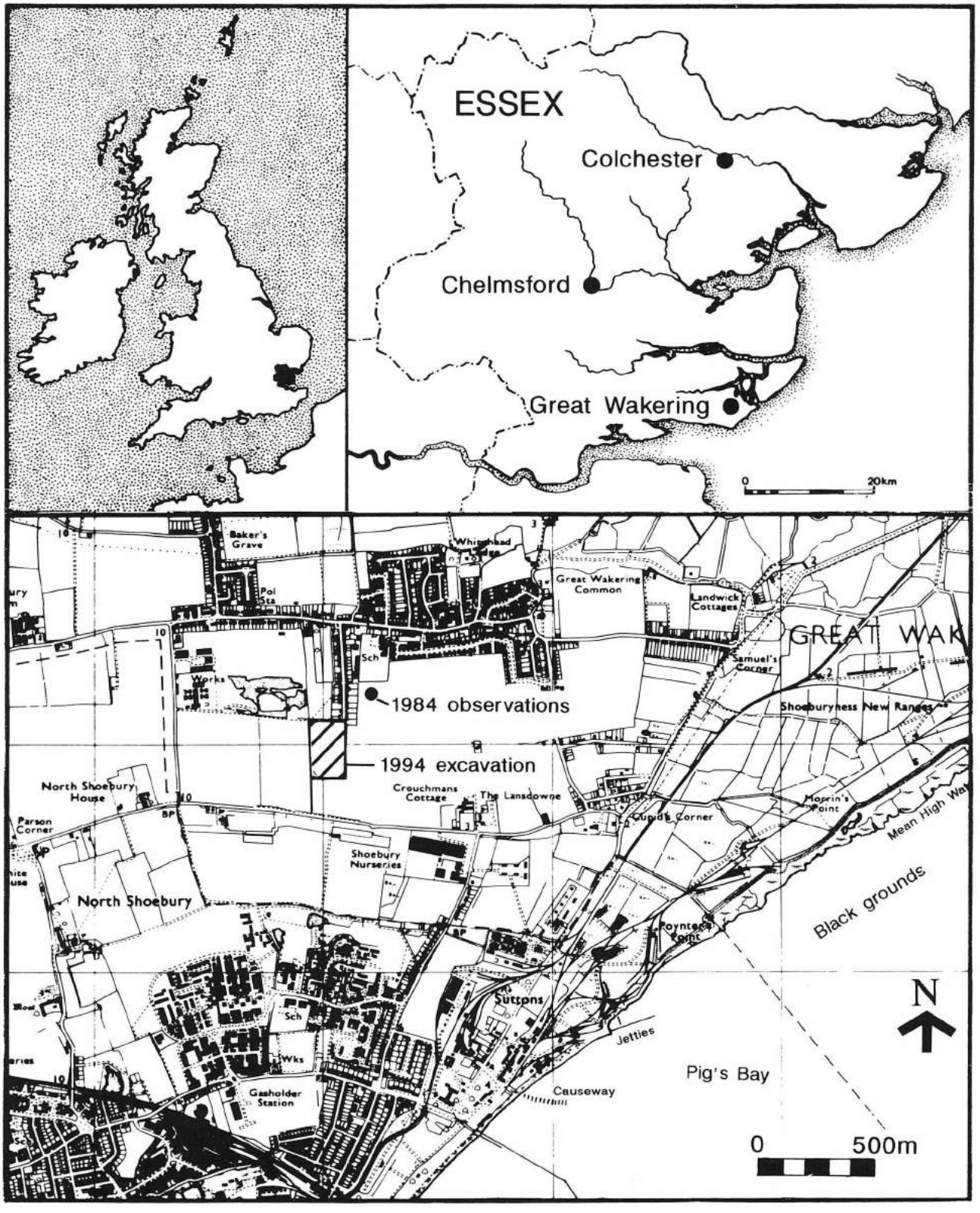


Fig. 1 Great Wakering 1994; site location. © Crown copyright 87584M.

were excavated; these were backfilled, then in the second phase a fifth trench was excavated between the two centre trenches. Although these trenches were not open simultaneously in plan they form one large trench (B). Trench A was situated to the west and Trench C to the east (Fig. 3).

Different sampling strategies were adopted during the two stages of excavation. During the first stage, 50% of all discrete features and approximately 5% of linear features were sampled by hand. In the second stage, 100% of all discrete features and approximately 10% of linear features were sampled by hand. In both cases the topsoil was removed by machine.

As there were two stages of excavation a number of features were given more than one number; where this is the case the latest number is referred to in the text.

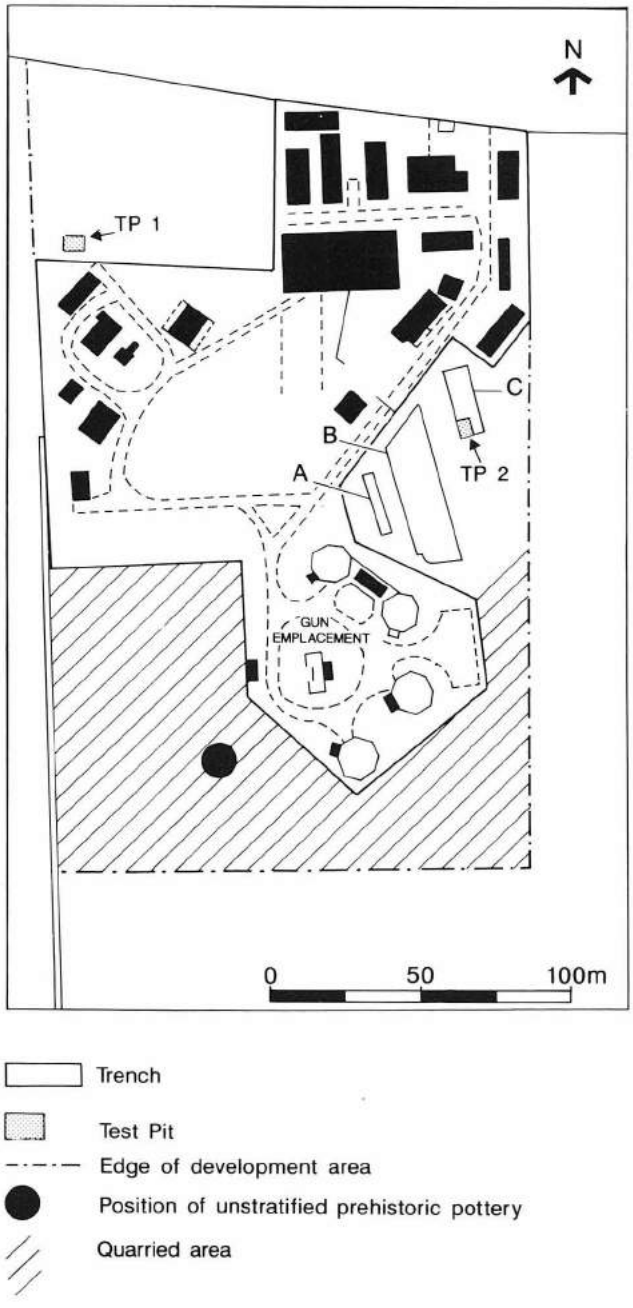


Fig. 2 Great Wakering 1994; trench location. © Crown copyright 87584M.

Pleistocene Deposits

by D. Bridgland

Two test pits were excavated to investigate the nature of sealed Pleistocene (Ice Age) deposits and recover any palaeoliths present. Test pit 1 revealed 2m of well-bedded waterlain sand and gravel overlying London Clay, identified as the Barling Gravel, deposited by a proto-channel of the Thames-Medway river system about 300,000 years ago (Fig. 4). Test Pit 2 revealed 2m of brickearth above the gravel, interpreted as wind-blown loess. Analysis of stone size/content and soil particle size allows the Alexandra Road deposits to be compared in detail with records of the Barling Gravel and the overlying brickearth at over sites nearby. No palaeolithic artefacts or animal or plant remains were recovered, although they have been found in the Barling Gravel elsewhere in the area.

Prehistoric features

The earliest features on the site were 646 in trench B and 409 in trench C. Although the pottery they produced cannot be dated more precisely than to the prehistoric period, both features were cut by ditches thought to be of Middle Bronze Age date (Figs 5, 6 and 7). Feature 409 was truncated by 410 and 408 and so its precise nature could not be ascertained (Figs 5 and 7). It did however appear to be the butt-end of a north-east-southwest ditch which had a depth of 0.7m and was over 2m wide. Feature 646 was cut by ditch 623 and was either a shallow pit or the butt end of a gully. Most of the features appeared to continue outside the area of excavation.

Present in the area of excavation was part of a ditch system, consisting of four ditches (100 in trench A, 623 and 607 in trench B, and 410 in trench C), all of which had similar dimensions and ran roughly parallel to each other in a east-west direction (Figs 5, 6 and 7). Only one ditch (607) produced pottery which could be dated more closely than to the prehistoric period and this was of a Middle Bronze Age date, but given the similarity of the features it is reasonable to suppose all four ditches were contemporary.

The most southerly ditch (100 in trench A) was 2m wide and 0.55m deep with steep sides and a flat base (Fig. 6). It was also visible in the west of Trench B, but could not be traced in the main stage of excavation, suggesting that it terminated in this area, although unfortunately the terminal itself was not identified. The ditch contained two similar fills, suggesting that the original ditch was re-cut at a later date. The later fill (101 in Fig. 6) produced a little pottery which could be dated broadly to the prehistoric era.

Situated 17m to the north was a similar ditch 623 which ran across the width of Trench B (Fig. 6). It had a flat base and the southern edge was steeper than the northern, and the ditch narrowed towards its eastern

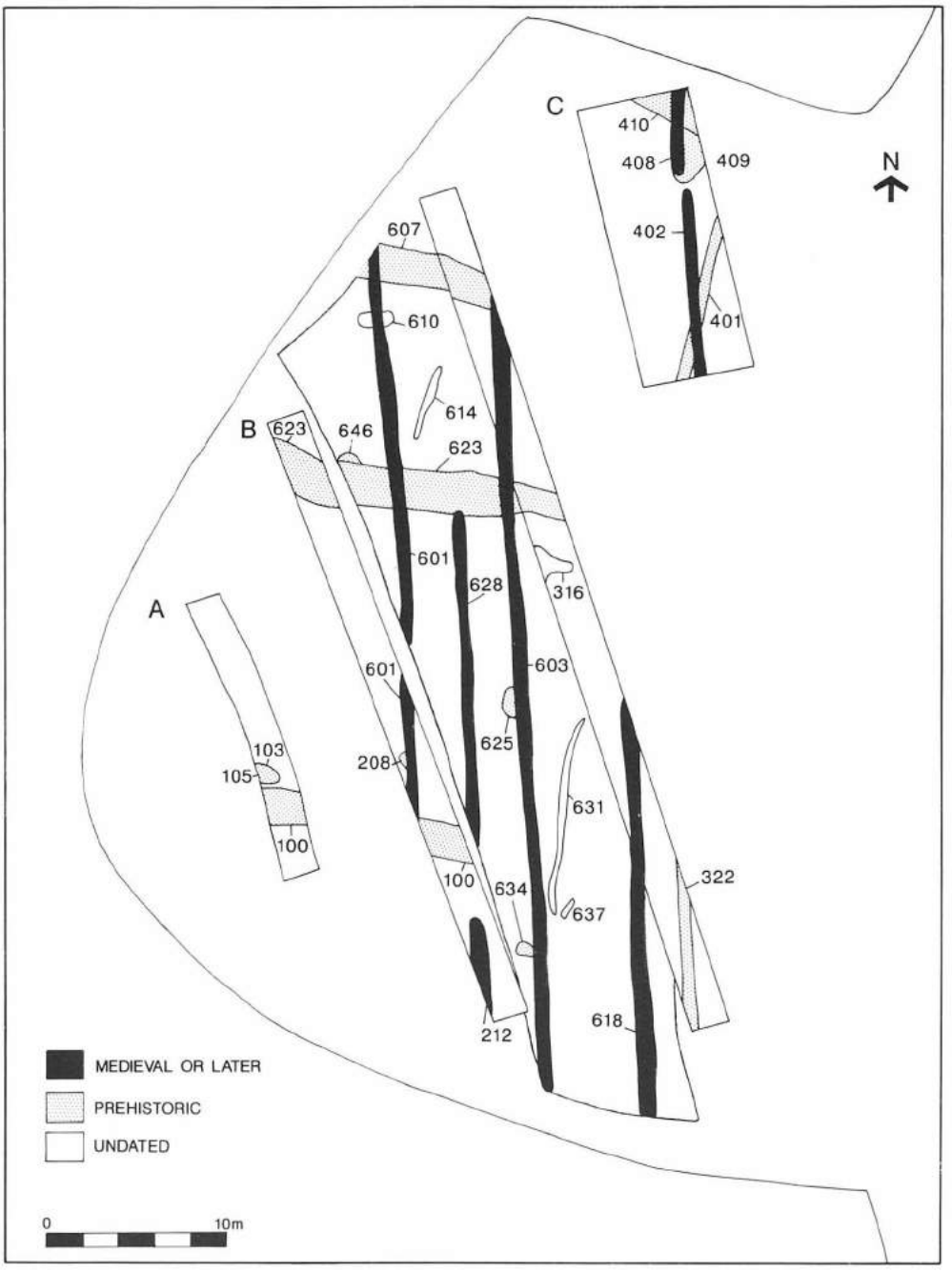


Fig. 3 Great Wakering 1994; phase plan

end. This feature produced prehistoric pottery, and also flintwork which appeared to be of two different traditions. There were six blades that exhibited good technique and were struck from prepared cores, but the remaining flakes were of a poorer quality flint and workmanship.

Ditch 607, which was on the same orientation as the other ditches but 10m farther north, produced the only firm dating evidence for these features, namely the shoulder sherd of a small bossed pot, characteristic of the Middle Bronze Age; also present was a thumb-nail scraper.

The full width of ditch 410, situated 10m north of 607, was not sectioned as its northern edge lay outside the area of excavation (Fig. 7). Although this feature produced no prehistoric pottery, only worked and burnt flint, its orientation and dimensions suggest it belongs to this phase.

In the south of Trench B, pit 634 was stratigraphically unrelated to the ditch system, but must in any case be later, because it contained pottery of a Middle Iron Age date, including the rim of a plain bowl (Figs 5 and 7). The pit was elliptical in plan and tapered from a diameter of 0.9m at the top to about 0.3m by

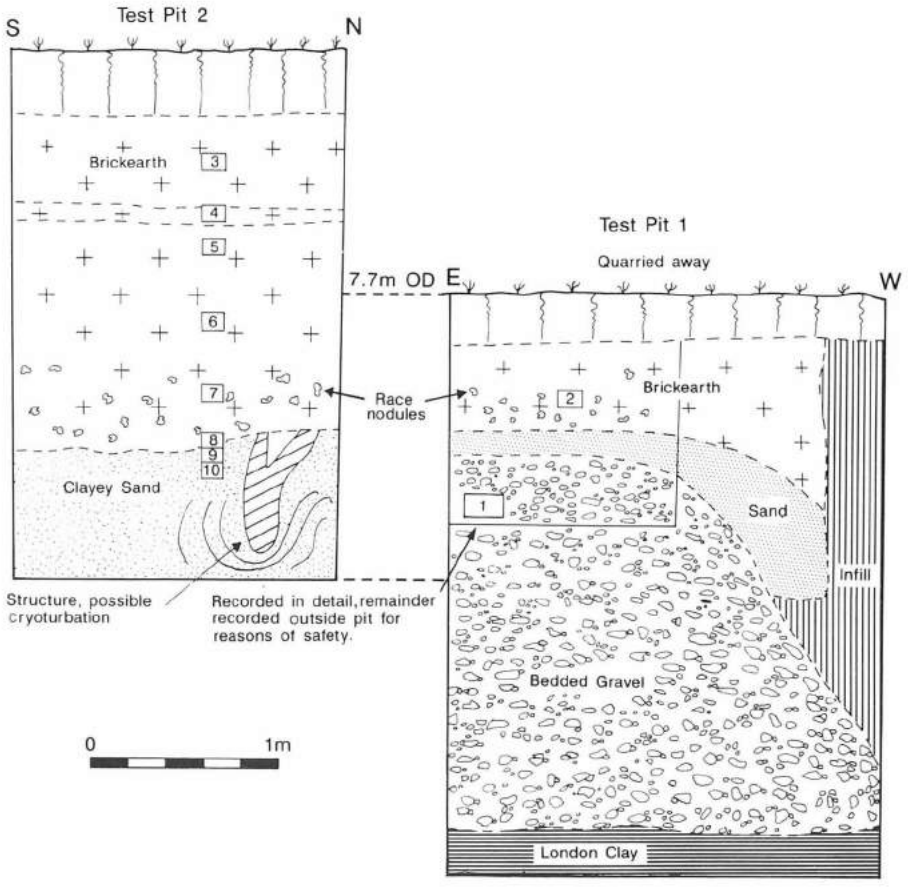


Fig. 4 Great Wakering 1994; sections of geological test pits.

0.10m at the base and it was 1.2m deep. The unusual shape of this pit suggests it was dug for a specific purpose, for example storage of a specific item rather than simply disposal of rubbish.

Features 322 and 625 (trench B) and 401 (trench C) were also prehistoric, although they cannot be closely dated (Figs 5, 6 and 7). Feature 625, in the centre of trench B, was an almost vertical-sided, flat-bottomed pit, but was largely cut away by ditch 603 so its exact shape is uncertain, although it appeared to be circular in plan and was 0.8m wide and 0.32m deep. The single fill of the pit was a very clean clay-silt, and prehistoric pottery and a single flint flake were recovered from it. A shallow ditch (401) in trench C (401) had steeply sloping sides and a slightly concave base. It contained no dating evidence but was cut by ditch 402, thought to be medieval or later. Ditch 322 in Trench B was similar in profile and dimensions and these two features may form one ditch of prehistoric date, although in plan (Fig. 3), 322 especially looks as if it belongs to the north-south ditch system.

Towards the west of trench B was a circular feature (208), 0.7m in diameter, which was filled by compact scorched brickearth and charcoal, suggesting it was a hearth (Figs 5 and 6). It contained a copper-alloy rod and some burnt and worked flint and may possibly be prehistoric, as may feature 105 (trench A), which was visible only in section and appeared to be the terminal of a small ditch. It was cut by a steep-sided pit 0.6m deep (103). Neither feature produced firm dating evidence but some worked flint present in pit 103 suggests a possible prehistoric date.

Medieval or later features

The later phase of the site is difficult to date as the seven ditches that form it contained, between them, small amounts of prehistoric and Late Iron Age/Roman pottery, as well as three Saxon and three medieval pottery sherds. The majority of the sherds were abraded and even the latest pottery may be residual. The ditches (from west to east; 601, 212/628, 603 and 618 in trench B and 402/408 in trench C) are all orientated north-south and all except 628, and possibly 212, have similar dimensions (Figs 5, 7 and 8).

These ditches were about 6m apart and 0.55-0.70m in width and 0.45-0.60m in depth. They all had vertical sides and flat bases forming a square or rectangular profile. All the features had one or two fills which were a very clean silt clay and similar to each other and

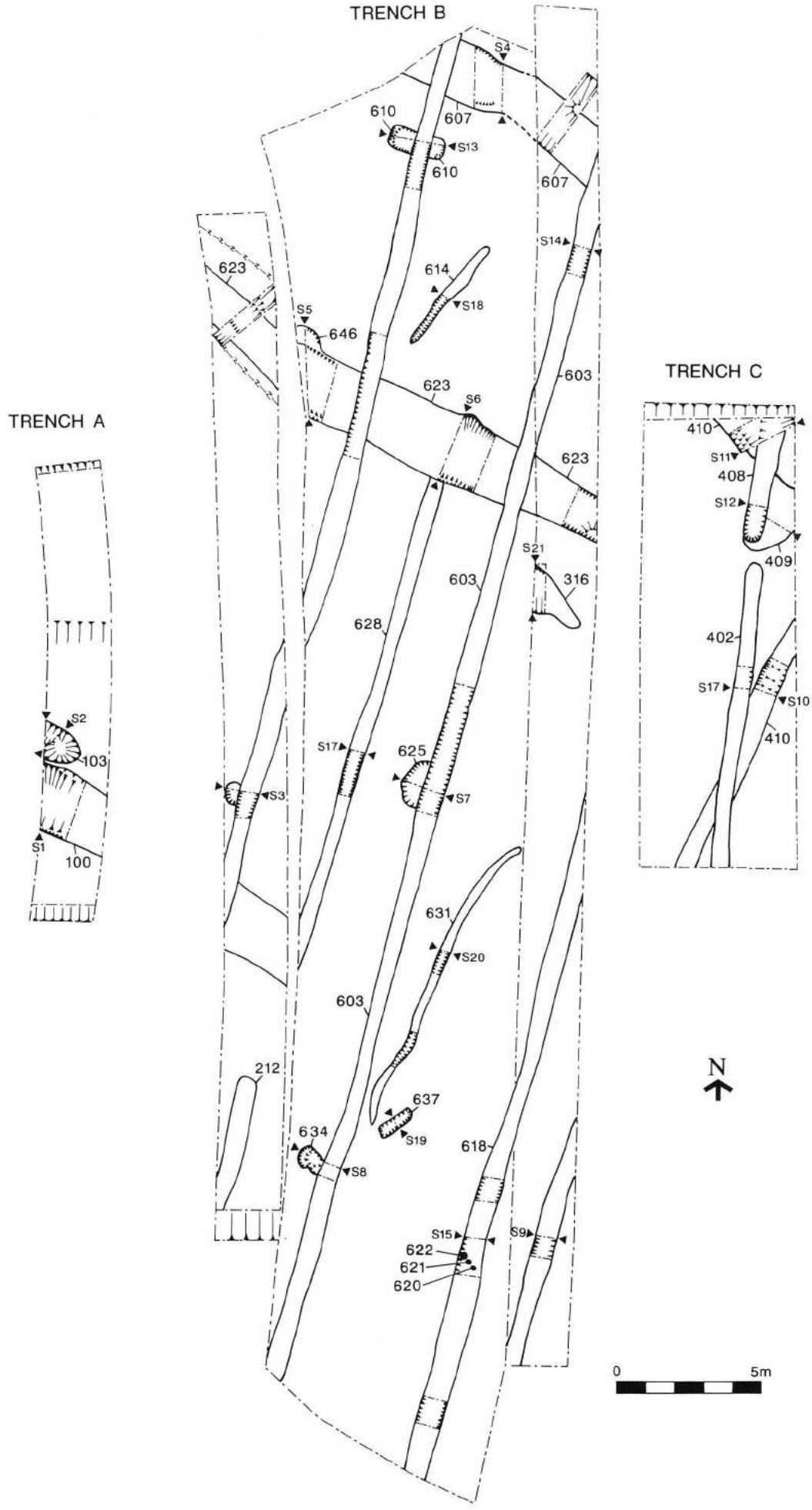


Fig. 5 Great Wakering 1994; site plan. Note that the relative positions of trenches A, B and C are not shown accurately; for this refer to Fig. 3.

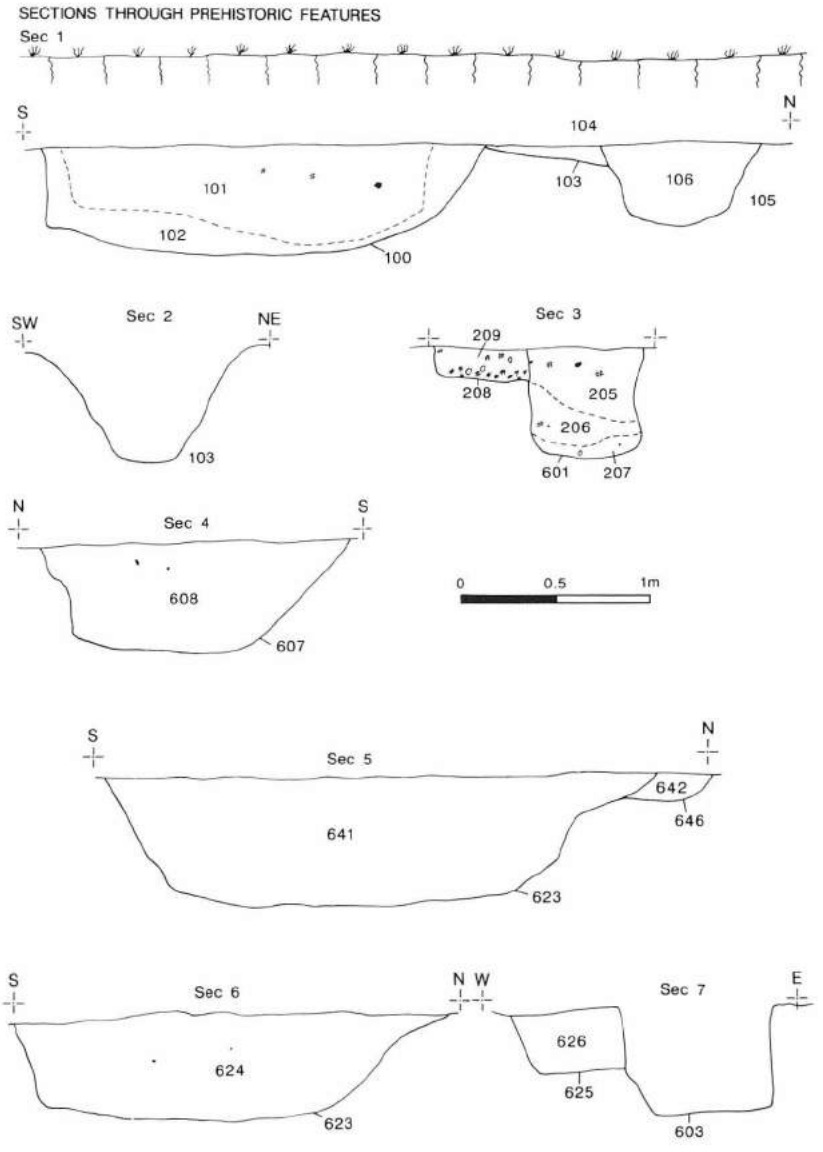


Fig. 6 Great Wakering 1994; sections through prehistoric features.

the natural subsoil into which they were cut.

Ditch 601, the most westerly, was investigated by the means of two segments; these contained eight sherds of Late Iron Age/Early Roman pottery but also one sherd of Saxon pottery (Fig. 8). Ditch 603 produced similar quantities of pottery but three sherds of medieval pottery were also present (Fig. 8). Ditch 618 was the only ditch in which any structural features were detected. Three possible stakeholes were present in the most southerly segment, but did not become visible until the first 0.1m of fill had been removed, and then the fills of stakeholes were so similar to the surrounding ditch fill that it was only by differential absorption of water that they were distinguishable. Two (620 and 621 in Fig. 5) were 0.1m in diameter and 0.17m in depth and the third was slightly bigger (0.2m diameter and 0.3m deep). They formed a rough line orientated northwest-southeast diagonally across the ditch, but as they were only a few centimetres apart no explanation of their function can be given. No dating evidence was recovered.

Ditches 408 and 402 in Trench C were on the same north-south alignment with a gap of *c.* 1m between their butt ends.

Undated features

Features that produced no dating evidence at all were 610, 614, 631, 637 and 316, all in trench B (Figs 3, 5 and 8). Feature 610 was a rectangular feature cut by ditch 601. It was approximately 2m long, 0.5m wide with a depth of 0.2m and the steeply sloping sides went down to a concave base. No finds were present in the

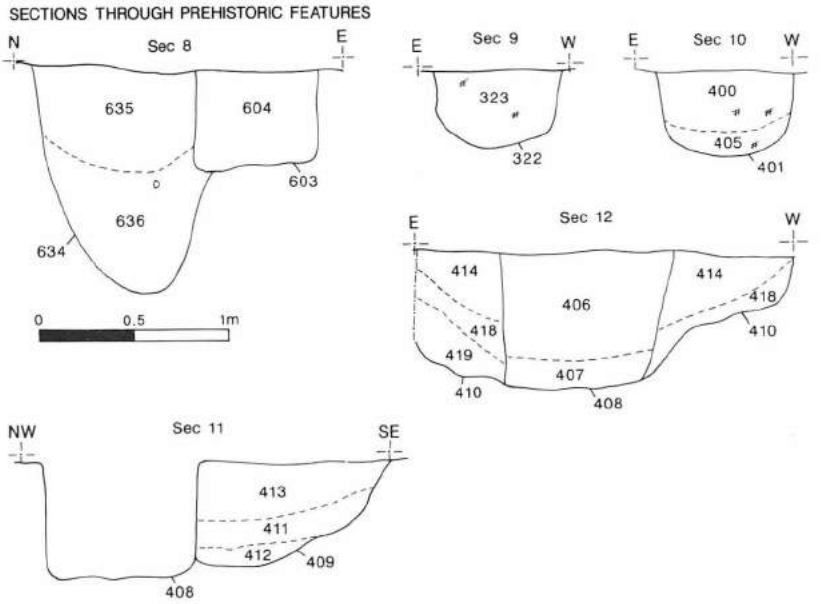


Fig. 7 Great Wakering 1994; sections through prehistoric features.

fill but there was a lens of scorched natural subsoil (brickearth) on the western side of the feature, suggesting *in situ* burning; however no charcoal or other fire debris was present. Further south in Trench B was another rectangular feature, 637, but this one was smaller (1.23m by 0.4m and 0.22m deep); it also contained no finds and its function is not obvious.

Immediately to the north of pit 637 was a linear cut 631 15m in length, 0.25m wide and 0.28m deep (Fig. 8). It was orientated northeast to southwest, had a flat base and almost vertical sides. The feature may be the base of a fence but no stake holes were discernible within it. It ran parallel to another undated linear feature to the north 614. This feature is shorter but oth-

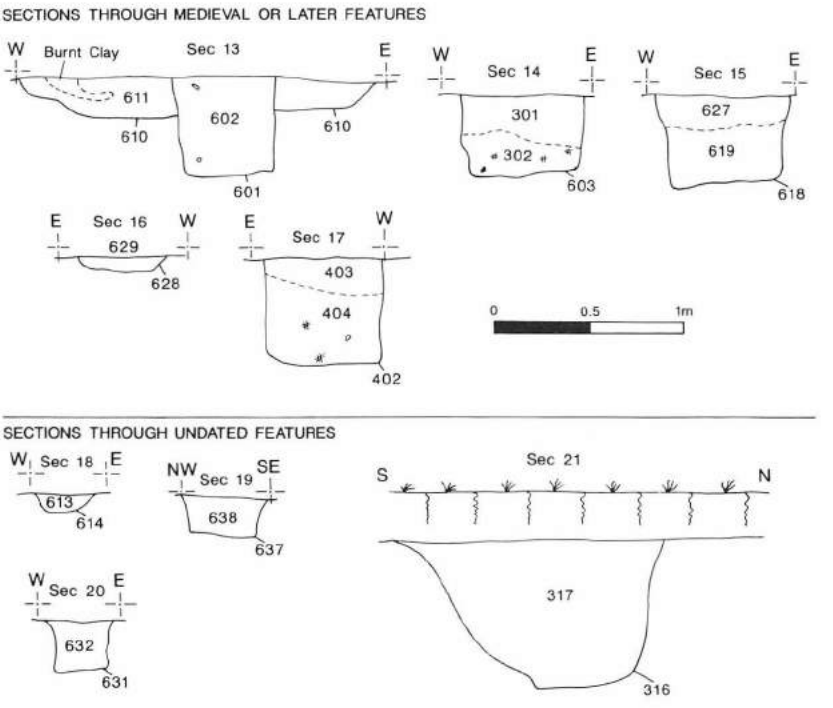


Fig. 8 Great Wakering 1994; sections through medieval or later and undated features.

erwise of similar dimensions, which suggest perhaps that both features are plough furrows probably dated to the post-medieval or modern period. The amorphous feature 316 was probably formed naturally possibly by the action of tree roots.

Prehistoric pottery

N. Brown

The excavations produced a small quantity of pottery, 171 sherds weighing 579g. The assemblage is dominated by flint-tempered fabrics (85% by sherd weight), not in themselves closely datable within the prehistoric period.

Two diagnostic sherds are of Middle Bronze Age date. A sherd of bucket urn with finger-impressed applied cordon was residual in recent disturbance (Fig. 9.A). A shoulder sherd from a small bossed pot (Fig. 9.B) was recovered from 607. Small bossed pots occasionally occur in Late Bronze Age contexts (Field and Needham 1986), and an example known from Springfield Lyons (Brown unpublished). However, they are a characteristic component of Middle Bronze Age assemblages throughout Essex (Brown and Bartlett 1984-5), occurring locally at North Shoebury (Brown 1995).

The pottery from a number of features (300, 603, 402, 408, 601, 603) is highly abraded. These features also contain later pottery and the prehistoric pottery is clearly residual. The fabric of some of the prehistoric sherds including one vegetable-tempered sherd, from 601, may be of Iron Age date. Material from pit 634 in a sandy fabric and including a rim of a plain bowl is of Middle Iron Age date (Fig. 9.C).

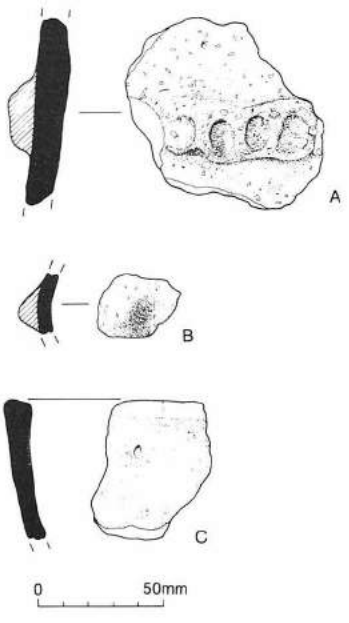


Fig. 9 Great Wakering; prehistoric pottery.

Worked flint

O. Bedwin

A total of 132 pieces of worked flint was found, in 31 contexts from 15 features. The assemblage comprised 118 flakes (including a number of very small 'chips'), 4 cores, 8 irregular lumps with variable, haphazard flake removal and 2 scrapers (one thumbnail and one side scraper).

Raw material

The flint showed considerable variety. The majority was dull, mottled mid or dark grey flint of generally poor quality. A smaller amount of good quality, dark grey, glossy flint and some honey-coloured flint was also present. It appeared that small flint nodules or pebbles had been the usual starting point.

Technology

Most of the flint-work exhibited haphazard technology, with heavy rippling indicating the use of a hard hammer. The division into the cores and 'irregular lumps with haphazard flake removal' is subjective. Essentially these twelve pieces range from a small pebble, still mostly cortex, with a few overlapping flake scars to very roughly shaped cores. All are, however, linked by the highly irregular flake removal. At least one 'core' probably failed at the point where a severe flaw was discovered. There were a small number of blades which were struck from prepared cores; six of these were present in 624 the fill of ditch 623. This group of six pieces showed no sign of wear, but are clearly derived from a quite different tradition of flint-working from the other 9 pieces from that context. The possibility therefore exists that, during excavation, material from two separate contexts became mixed. There is an approximate correspondence between the poorer quality flint and the cruder technology.

Discussion

It is unlikely that all the flint-work belongs to a single phase. A single small blade (snapped), showing soft hammer technique may possibly belong to the Mesolithic. A few flakes display characteristics consistent with the Neolithic including the eight pieces made from prepared cores; the two scrapers (from 607 and 618) have a wide date range, throughout the Neolithic and much of the Bronze Age (thumbnail scrapers being demonstrably as late as the Later Bronze Age; Drewett 1982). The bulk of the assemblage, with its crude flaking technology, is rather harder to date. It may provisionally be assigned to the Middle Bronze Age for two reasons. First, because diagnostic MBA pottery has been identified in two contexts which also yielded flintwork: secondly, because a limited MBA flint assemblage, very similar to much of the Great Wakering material, was recovered from sealed, well dated contexts at nearby North Shoebury (Wymer 1995).

Roman pottery

T.S. Martin and C.R. Wallace

A total of 28 sherds was recovered from 11 contexts, which were part of five features (402, 408, 601, 603, and 618). All were abraded and largely undiagnostic with only one rim present. (Pottery from Essex County Council Field Archaeology Group sites is classified using the form and fabric series established by Going (1987)). Five fabrics were identified: body sherds of Romanising wares (Going fabric 45), fine grey wares (fabric 39), sandy grey wares (fabric 47), grog-tempered ware/fabric 53, unspecified buff wares (fabric 31) and early shell-tempered ware (50).

Overall the group has a broad date range from 1st century to early/mid 3rd century AD. The earliest sherds are from the fill of 603 in the form of Romanising grey ware (fabric 45) and Early shell-tempered ware (50), which may be considered to be broadly early Roman, i.e. mid to later 1st/?early 2nd century. However, all of this appears to be residual. On the other hand, the latest pottery, a dish B2.1/B4.2 (too incomplete to identify the exact type) in fine grey ware (fabric 39) from 601 (context 602) dates from the mid 2nd to the mid 3rd century AD (Going 1987, 14-15). Pottery from the remaining features cannot be closely identified.

The poor condition of the pottery as a group, and the fact that Saxon and medieval pottery sherds were also present in ditches 603 and 601, suggests that it is not sound dating evidence and it is possible that all the Romano-British pottery is residual.

Saxon and medieval pottery
H. Walker
Two sherds of Saxon pottery were recovered from contexts 613 (ditch 601) and 604 (ditch 603), both sherds were abraded and could not be dated closely within the Saxon period. The medieval pottery comprises three fairly abraded body sherds of early medieval coarse ware, weighing a total of 30g. The occurrence of these two wares together suggests a date of 12th to earlier 13th century; however sherds of prehistoric, Roman and Saxon pottery were also found in this context, indicating the material is disturbed and that the medieval pottery may also be residual.

Miscellaneous finds
H. Major

Metal objects
Two metal objects were found. Context 209 (feature 208) contained a square sectioned copper-alloy rod, 72mm long, of unknown purpose, and context 302 (feature 603), a probable iron nail shaft.

Baked clay
Thirteen contexts produced a total of 39 fragments of baked clay, weighing 146g. It was all in a fine fabric with very few inclusions, derived from the local brickearth: 95% was from prehistoric features, including the only piece (from 314, 607) which had its original surface. It is possible that the remaining 5% was residual in the later features. Overall, this is a very small assemblage, and it is not possible to say whether any of it derives from a structure.

Burnt flint
Twenty six contexts produced 3219g of burnt flint; 12% was present in prehistoric features and remainder in later features which was distributed across the site in both prehistoric and later features

Conclusions

The dominant features on this site are the two field systems, the earlier of which is probably dated to the Middle Bronze Age, as the prehistoric pottery recovered from it included one diagnostic sherd of Middle Bronze Age date. It is represented by a series of east-west ditches (100, 410, 607, 623), and possibly two north-south ditches (332/401 and 409). These were probably field boundaries as no evidence of structures or domestic activity was recovered, and finds were few. It is worth noting that the northernmost east-west ditch 607 contained diagnostic pottery and a flint tool as well as a piece of baked clay still with a surface present. This was the most complete piece of baked clay recovered and suggests that this ditch is closer to the centre of activity than the others and therefore that the occupation area was situated to the north of the excavated area.

The 1984 observations nearby (Fig. 1) identified eight features dated to the Bronze Age, five of which were thought to be Middle Bronze Age (Crowe 1984). The excavations were undertaken under rescue conditions after the area had been stripped by boxscrapers and so, in the main, the features identified were deep ones or those with distinctive fills. Signs of domestic activity were identified in the form of six pits and two ditches and it is likely that many more features, including structures, were destroyed. It is a possibility that the focus of occupation was centred around the area of the 1984 work and that the area of the 1994 excavation is within the supporting agricultural land. However, relatively large amounts of pottery recovered from the quarried area to the south of the gun emplacement also suggest that was an area of importance.

A single feature, pit 634 is the only evidence of Middle Iron Age activity on the site, although the hearth (208) located in trench B that produced a copper-alloy rod, baked clay, work and burnt flint could be dated to any stage within the prehistoric era. Again some Middle Iron Age activity was recovered by Crowe in the form of two pits, one of which contained the remains of three pots.

Evidence of a Middle Bronze Age field system is also present at North Shoebury where it is accompanied by environmental and artefactual evidence of a settlement based on a mixed farming economy (Wymer and Brown 1995). It is possible that a similar settlement was located at Great Wakering (certainly the date range of evidence from the 1984 Great Wakering excavations is similar to that from North Shoebury).

The function of the later system of ditches (601, 603, 618, 402, 408, 212 and 628) which run north-south across the site is unclear. The fact that pottery in these features ranged from the prehistoric through to the medieval period and was in such poor condition suggests that these features are, at the earliest, medieval in date. Their orientation is the same as the field system shown on the 1st edition 6-inch OS map of the 1860s. This depicts a rectilinear field system orientated north-south and east-west, with the north-south dimensions being much longer than the east-west. Excavations at North Shoebury and observation of the extraction of the surrounding brickearth have shown that the post-medieval system was not a continuation of the Roman field system and that the earliest physical evidence of it is in the 13th century, although a Late Saxon date may also be possible (Brown 1995).

The square profile of these features and their close proximity to each other (about 6m apart) suggests they were not simple field boundaries but served a different purpose. The Chapman and André maps of 1777 show Great Wakering to be on the edge of salt marsh (which has since been reclaimed), and it is possible that these features were part of a land drainage scheme. However, even though brickearth is relatively resistant to erosion and so holds its shape well, one would expect the sides of the features to show signs of undercutting if water movement had taken place, but they do not. The ditches could have kept their shape if they had been timber-lined; however, as the fills were very clean and contained no organic content this seems unlikely. More plausible is that they were deliberately backfilled after a short period of use.

Similar ditches were located during Crowe's 1984 excavations. Although they were not excavated they did have the same orientation and dimensions as the ones

from this site and they were stratigraphically post-Roman. They have also been identified 3km north-west of the Alexandra Road site, to the north and south of the village of Barling (Wade 1994). These ditches again had straight sides and flat bases, ran parallel to each other, and were situated between 4 and 8m apart, however they were orientated east-west rather than north-south. This is also in an area adjacent to marsh-land pointing again to their function perhaps being one of drainage.

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A prehistoric and Roman occupation and burial site at Heybridge: excavations at Langford Road, 1994

by Brona Langton and Neil Holbrook

with contributions by N. Brown, A. Croom, B. Dickinson, J. Jones, J. McKinley, D. Smith, S. Tyler, L. Viner, G. Walker and K. Wilkinson. Drawings by P. Moore and prehistoric pottery by R. Massey-Ryan.

Archaeological excavation in advance of development to the west of Heybridge revealed post-built structures, ditches, pits and post holes ranging in date from the Bronze Age through to the Early Saxon period. A small group of Romano-British cremation burials and two possible inhumation burials were also present.

Introduction

In July-August 1994, Cotswold Archaeological Trust excavated an 8500 sq. metre area adjoining Langford Road, Heybridge (TL 5847 2085; Fig. 1). The site is located on the north side of the lower Blackwater valley on Pleistocene terrace gravels to the west of the town of Heybridge and to the north-west of Maldon. The project was commissioned by Bovis Homes Ltd in advance of a residential development. The excavation followed an archaeological evaluation by Essex County Council Field Archaeology Group in December 1993 which indicated that prehistoric and Roman remains survived on the site. Accordingly Maldon District Council required the site to be excavated as a condition of planning consent. The project design for the excavation was approved and monitored on behalf of the District Council by the Archaeological Advisory Group of Essex County Council. The results of the evaluation have been incorporated within this report.

The site (Fig. 2) was divided into three areas; A, B and C. Area A was the main area of excavation whilst Areas B and C were small triangular pieces of land to the east of a twelve metre wide unexcavated strip acting as wayleave beneath electricity cables. This could not be excavated on safety grounds.

Archaeological background

The light, well-drained soils of the Blackwater estuary have been favoured for settlement since the Neolithic period. Aerial photographs have revealed extensive cropmarks representing farmsteads and land divisions. Four such cropmarks fell within the excavation area. To the south-east of Langford Road by the confluence of the rivers Blackwater and Chelmer lay the focus of the Roman settlement of Heybridge. Previous excavation has suggested that occupation originated in the Late Iron Age (1st century BC) and continued throughout the Roman period (Wickenden 1986). Early Saxon occupation has also been identified to the east of Langford Road at Crescent Road, where five sunken-floored buildings and a probable ground level structure were found in 1972 (Drury and Wickenden 1982). More recently (1993-5), Essex County Council conducted a major excavation of the extensive Elms Farm site which is contiguous with the Langford Road excavation area on its southern and western sides. These excavations have clearly demonstrated the multi-period nature of the settlement and its immediate hinterland, with the focus of the Romano-British settlement seemingly lying 500m south-east of the Langford Road site (Atkinson 1995). The post-excavation analysis of the Elms Farm project is currently being undertaken and will take a number of years to complete; only short summaries have been published to date (Atkinson 1994; 1995). Once complete this report will set the context in which the results of the present excavation should be placed. Detailed discussion of the implications which the work at Langford Road has for the understanding of the growth of the settlement at Heybridge would therefore be premature at this stage. This report accordingly concentrates on the presentation of the excavation results and their basic interpretation.

Site topography

The site lies at approximately 5.0m OD and is generally flat with gentle downward slopes to the west and south, the latter running into a stream channel. This channel ran north-west / south-east across the excavation area (Fig. 2) and was also found in the Elms Farm excavation skirting the focus of the 'small town' on its course to join the river Blackwater to the south-east. At Elms Farm the channel was considerably broader and deeper (M. Atkinson *pers. comm.*). A section across the

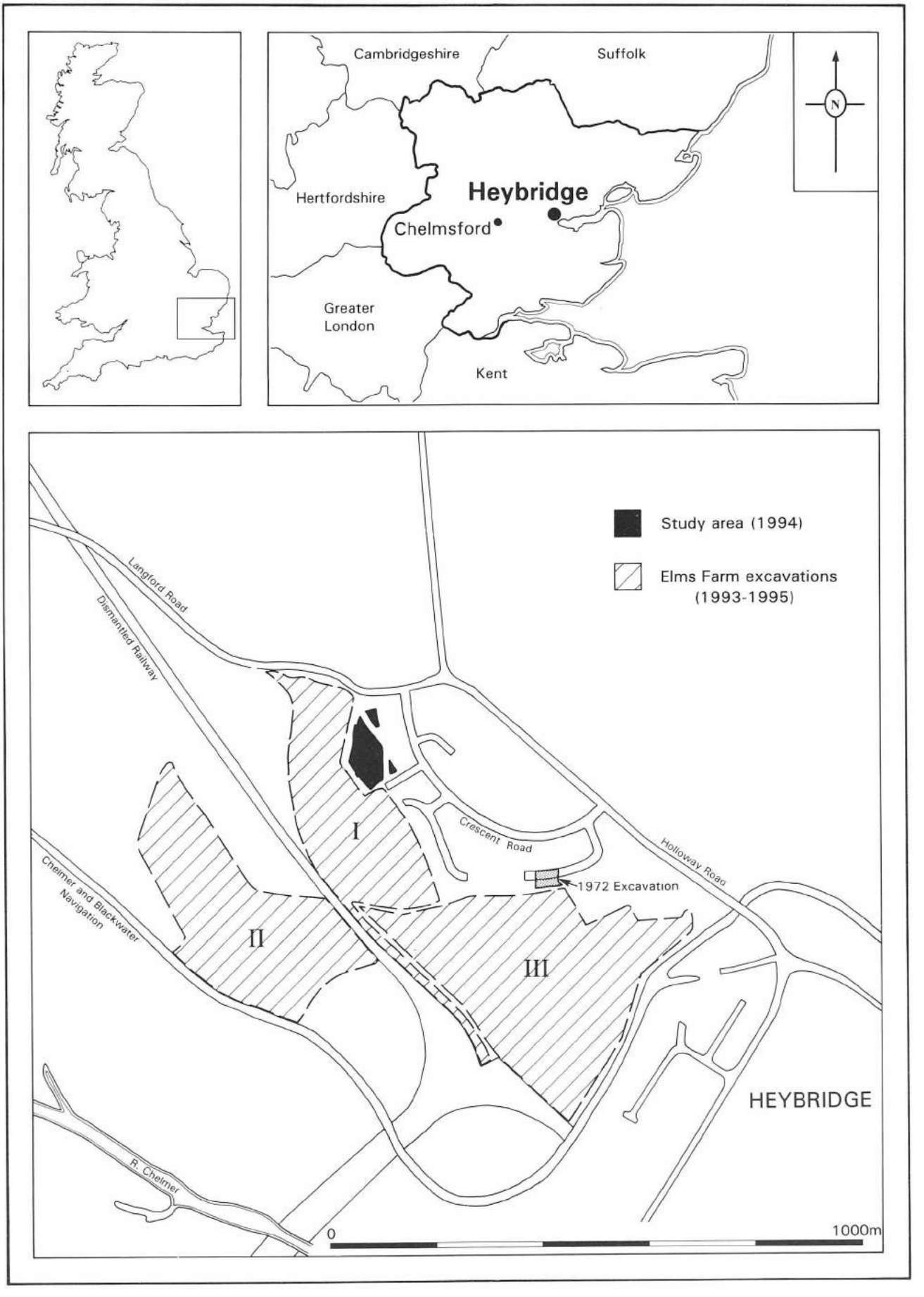


Fig. 1 Langford Road, Heybridge 1994. General site location. © Crown copyright 87584M.



Fig. 2 Langford Road, Heybridge 1994. General plan, showing all features (stippled) with excavated sections clear.

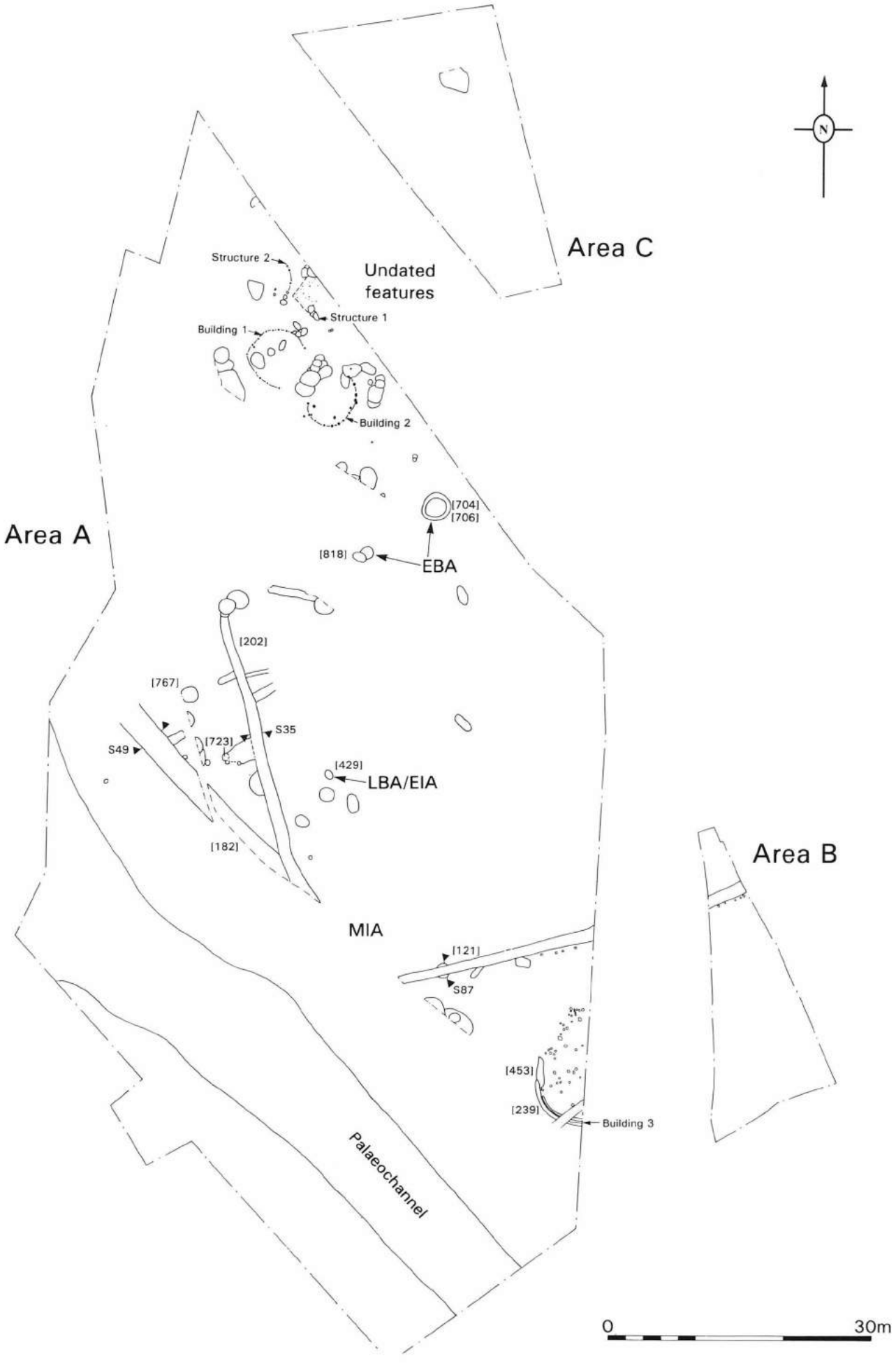


Fig. 3 Langford Road, Heybridge 1994. Plan of pre-late Iron Age features.

channel cut on the present site revealed it to be 6m wide, about 0.5m deep, and infilled with fine-grained alluvial sediments. Subsequent sedimentation covered a further area up to 18m wide, causing the channel cut to be overlain by a further 0.5m of alluvial silt.

EXCAVATION

Methodology

Topsoil and subsoil were stripped under archaeological supervision using a 360° excavator with toothless bucket. Selected areas were hand cleaned prior to detailed investigation of specific features. Discrete features such as pits and post holes were half sectioned while linear features such as ditches were sampled by hand excavation in at least two places to determine their character, form, stratigraphic sequence and to recover datable artefacts (Fig. 2). Bulk samples were collected from a range of features for environmental analysis. In this report, context numbers for cut features are designated square brackets thus: [000], fills and layers are in round brackets; (000).

Problems of phasing

The majority of features cut into the gravel (Fig. 2) produced no dating evidence and consequently phasing has often been difficult and based upon a number of assumptions. These assumptions are made explicit as follows. Features containing worked flint but no pottery have been assigned a general undated prehistoric phase which is likely to fall between the Early Bronze Age and Middle Iron Age (see below; Fig. 3). These features are located on the high flat ground in the northern part of Area A and include Buildings 1 and 2. Building 3, a roundhouse, has been placed in the Middle Iron Age on the basis of its form, its proximity to features of this date, and the presence of one sherd of Middle Iron Age pottery associated with it. Building 4, a rectangular structure, has been allocated to the Romano-British period, rather than earlier, solely on the basis of its plan. The ditches have been phased on the basis of their stratigraphic relationships, but precise dating for their construction and length of use was not obtained. Overall the site has been divided into seven phases spanning the Mesolithic/Neolithic to the Early Saxon period.

Prehistoric features

In the pre-Roman period the major natural feature within the excavation area was the stream channel bordering the south-west side of the site. To the north-east the land rises to a flatter, better drained terrain where evidence of settlement was found.

Mesolithic/Neolithic

The earliest finds recovered were five flint tools diagnostic of this period. Two were found in a redeposited context, whilst the remaining three were found in pits. A Late Mesolithic microlith came from pit [955]; a Neolithic tool from pit [1139] to the north of Building 1, and a Neolithic leaf-shaped arrowhead was found during the evaluation in pit [406] in the central area of the excavation. No Neolithic pottery was recovered.

Early Bronze Age (Fig. 3)

Two features can be dated to the Early Bronze Age on the basis of the pottery found within them. Pit [704] was roughly circular with steeply sloping sides, measuring 3.5m in diameter and 0.5m deep, and contained a light silty sand (705) (Fig. 12, Section 109). It was recut by [706], a slightly smaller pit, at the bottom of which was placed a small Beaker vessel with all-over cord-impressed decoration (Fig. 14, 1). The Beaker was placed on its side on the western edge of the pit; no other finds were present. The pit was backfilled with a clean gravelly sand fill (707). Excavation of the beaker contents within the laboratory yielded no cremated bone. At the adjoining Elms Farm Stage 1 excavation, an analogous pit containing a deliberately deposited Beaker was found close to a Middle Bronze Age barrow (Atkinson 1994). The second pit [818], situated 7m west of the first, contained 50 fragments of pottery (Fig. 14, 2-7), including Beaker fragments, and 39 fragments of fired clay, along with worked flints diagnostic of the Early Bronze Age. The pit was oval with near vertical sides and a fairly flat base and measured 1.35m x 1.26m x 0.56m deep. It contained three sandy fills; (819), (820) and (821).

Late Bronze Age – Early Iron Age (Fig. 3)

Pit [429] in the middle of Area A contained pottery dating to the Late Bronze Age/Early Iron Age (fill 431; Fig. 14, 8).

Middle Iron Age (Fig. 3)

Pits, post holes and linear ditches were cut in this period, located mainly on the edge of the higher flat ground. Ditch [182], which was twice recut (Fig. 12, Section 49), contained Middle Iron Age pottery and stratigraphically was the earliest ditch recorded. It was orientated north-west / south-east and a scatter of burnt and worked flint lay on the surface of its backfill. Ditch [202] (Fig. 12, Section 35) intersected and cut ditch [182] at its south-eastern end; its terminus to the north was cut away by two pits. The ditch fill contained sherds of Middle Iron Age pottery. Both ditches were cut by Late Iron Age ditch [186], as was also ditch [121] (Fig. 12, Section 87). Post holes were found intermittently along the southern side of [121], suggesting a fence. In Area B, where these post holes were

more easily identified, Middle Iron Age pottery was retrieved from their backfill. In Area A, four post holes found along the southern edge of ditch [121] were regularly spaced with the easternmost and westernmost post holes (0.30m diameter) being 1.4m apart from the two inner, smaller post holes (0.20m diameter). Although a stratigraphic link between ditches [121] and [202] cannot be proved, they would have met at a right angle and both are earlier than ditch [186].

North-east of ditch [182] are pits and post holes dated to the Middle Iron Age. Of note is pit [723] (fill 724) which contained two complete triangular fired clay loomweights (Fig. 17, I-II) which had been reused as packing. Other pits and post holes in this area are undated but may be of Middle Iron Age origin.

Building 3 (Fig. 5), a roundhouse at the south end of the site, probably dates to this period. Half of the building lay outside the area of excavation. On its south side a pair of gullies [239] defined the outer edge of this structure, giving an outer diameter of 14m. Where the gullies terminated on the west side they cut a slot [453] that may be unrelated to the roundhouse; it yielded one sherd of undiagnostic prehistoric pottery from its fill. Three post holes 0.2m in diameter were found on the inner edge of the gully. The numerous post holes within the structure varied in size from 0.2-0.3m in diameter, with a single larger one 0.45m in diameter. Their frequency and lack of uniformity suggest that the structure underwent repairs during its lifespan. No indication as to the use of the building was found, but given its size it is not unreasonable to assume that it was for human occupation. No structural evidence for an outer wall was found, and it has been suggested that such buildings consisted of clay and turf walls retained internally by a stake and wattle structure (Drury 1978). This author also notes that Middle Iron Age houses are typically defined by enclosing features such as wall trenches and/or drainage gullies, and at Little Waltham similar houses 12-14m in diameter with surrounding drainage gullies have been found dating to the period *c.*100-50 B.C. A similar tendency has been noted in the Upper Thames region, with drainage gullies becoming common in the Middle Iron Age (Allen *et al.* 1984).

The presence of linear ditches dating to this period indicates that a degree of land organisation had taken place. The pits and post holes proven to be of Middle Iron Age date suggest settlement activity in the vicinity, and Building 3 fits best into this period.

Early Bronze Age to Middle Iron Age (undifferentiated) (Fig. 3)

Two small circular post-built structures, Buildings 1 and 2, were identified at the northern end of Area A. The post circles are presumably formed from the posts which supported the roof, with the outer wall lying outside this ring. The only artefacts associated with these structures were worked flints diagnostic of the Early Bronze Age found in some of the post holes and associated pits.

Building 1 (Fig. 4) was represented by 12 post holes, forming the best part of a circle. None were found on the south-east side despite intensive cleaning and no post holes could be ascribed to a porch. It is possible that the post ring was never a complete circle with the south-east side unwalled. A ?repair post hole was identified on the internal side of the post ring, 0.12m south of the post it replaced. The projected diameter of the post ring was 6.50m and the post holes varied in diameter from 0.18m to 0.25m and were between 0.20m and 0.30m in depth.

Building 2 (Fig. 4) was represented by 13 post holes, including one double post hole on the east side, and two ?repair post holes on the west side (one inside and one outside the ring). One was located 50mm to the east on the internal side of the post ring, the other was 0.35m to the west on the external side of the structure. If any further post holes on the northern side of the post ring existed they could have been truncated by a series of later pits. The diameter of the post ring was 6.0m and the diameter of the post holes varied from 0.25m and 0.40 and their depths between 0.10m and 0.26m.

Buildings 1 and 2 may not have been contemporary as they lay very close together. Given the small size and unsubstantial form of the two structures they need not necessarily have had a domestic function, the pits cut in and around these buildings possibly pointing more to a storage use.

Evidence for further simple structures was found to the north-east of Buildings 1 and 2 (Fig. 4). Structure 1 was a curvilinear line of post holes, 3.5m long, to the north of Building 1. It could represent the remains of a further structure such as a lean-to, with a larger post hole 0.35m in diameter at the south end forming the main support post. This proposed line of post holes was truncated to the north by a Roman ditch [882]. West of possible Structure 1 was a series of small post holes 50-100mm in diameter that appeared to form a right angle. They may be the remains of a further flimsy structure (Structure 2). These structures are undated.

Late Iron Age - Early Roman (to the end of the 1st century AD) (Fig. 6)

In the Late Iron Age or Early Roman period, eight ditches were cut on a north-west/south-east alignment parallel with the stream channel, and a further three ditches on a north-south alignment.

Two shallow ditches [135, 131] lay adjacent to the stream channel. Together they were recorded for a length of 60m, with a 1m wide break, presumably to allow for access. These ditches perhaps replaced the Middle Iron Age ditch [182]. Ditch [135] was replaced by ditch [151] (Fig. 12, Section 41) which may have been the same as ditch [181]. Both were subsequently

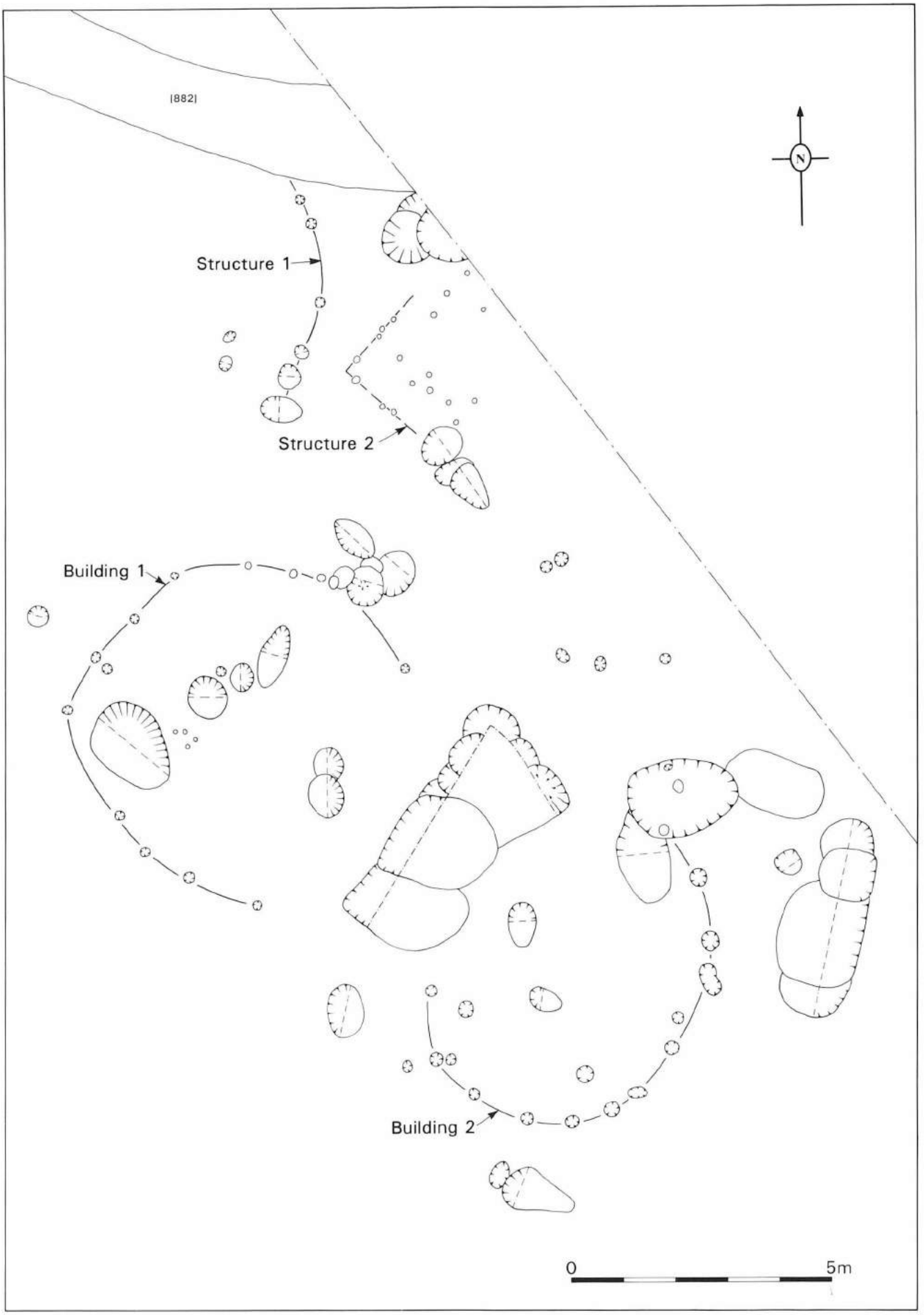


Fig. 4 Langford Road, Heybridge 1994. Detail plan of buildings 1 and 2, and structures 1 and 2.

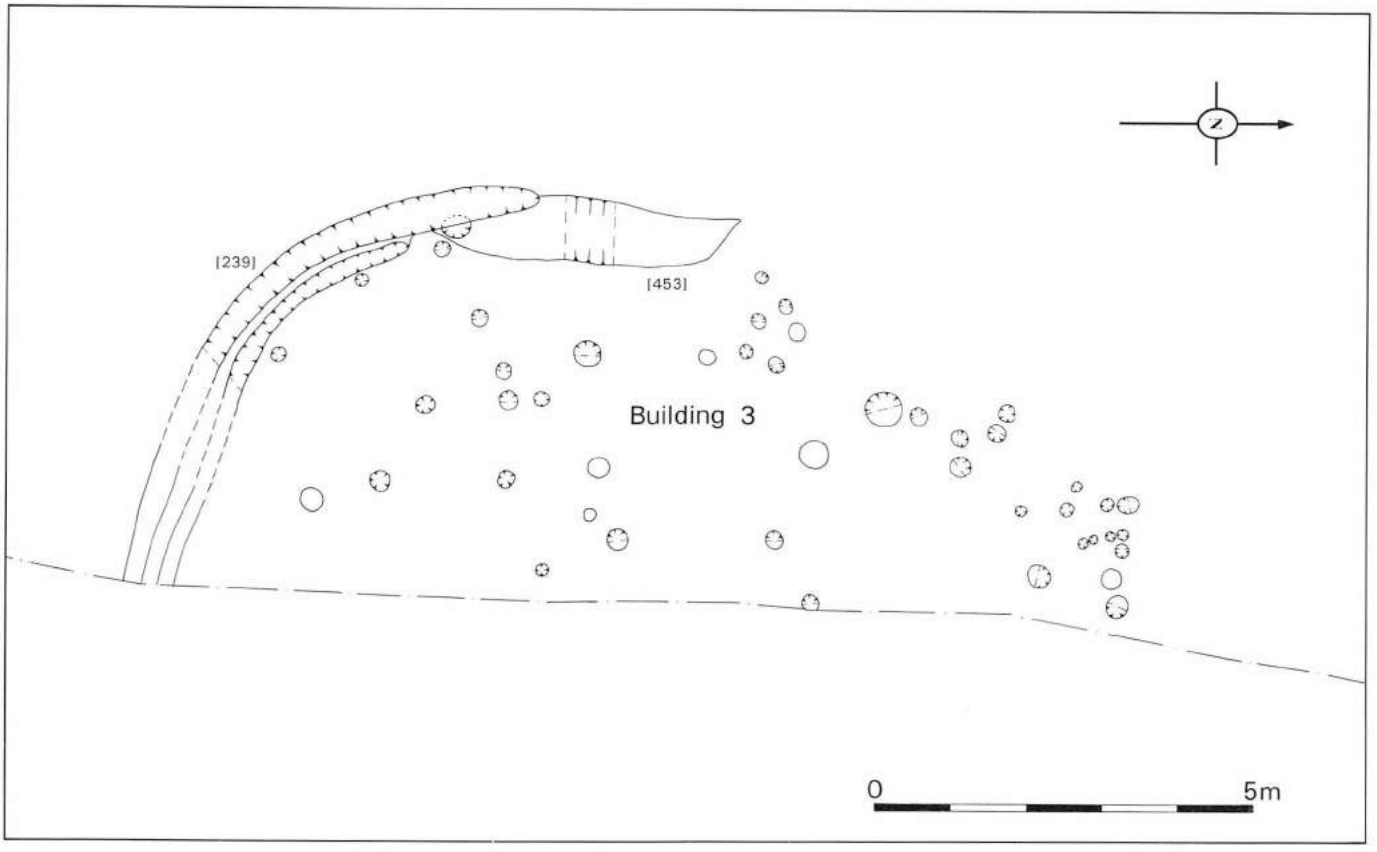


Fig. 5 Langford Road, Heybridge 1994. Detail plan of building 3.

engulfed by silts from the adjacent channel. Ditch [186] (Fig. 12, Section 51) ran almost parallel, and 6-10m to the north of [135]. It also terminated in a rounded end which corresponds with the opening between [135] and [131], with which it is probably therefore contemporary. Ditch [186] cut Middle Iron Age east-west ditch [121]. Ditch [147] cut ditches [135 and 186] and was perhaps contemporary with ditch [151] as it respects that ditch at its southern end. Ditch [147] was in turn replaced by ditch [1184], with recut [1197]. Both were shallow, narrow ditches aligned roughly north-south, and perhaps served as drainage ditches dividing the higher ground to the east from the lower wetter ground to the west.

At the north-east end of the excavation, ditch [882] (Fig. 12, Section 129) was aligned east-west, parallel with ditches [131]/[135] and [186]. Ditch [880], aligned north-east - south-west, cut [882].

Ditch [350] (Fig. 12, Section 54) was on the same alignment as ditches [131]/ [135] and [186], although it is stratigraphically later than them as it cut ditch [1184]. The filling of [350] produced only one sherd of Iron Age pottery, and it is not known if it dates from the Late Iron Age or the Early Roman period. It was recut [711] at least once. This ditch is visible as a cropmark continuing to the south-east and was recorded in Stage 1 at Elms Farm (Atkinson 1994). The distance between ditches [350] and [882], and [350] and [186] is 28m which suggests that the position of [350] was calculated to divide the existing landscape into evenly sized strips.

A further subdivision was created with the cutting of ditch [877] (Fig. 12, Section 139) parallel with, and 10m to the north of [350]. Together these ditches are likely to define a track or droveway. Ditch [877] was cut by an L-shaped feature [732] which contained one sherd of Iron Age pottery, but the lack of datable evidence for these ditches means that they may be placed in either the Late Iron Age or the Early Roman era.

On the south side of the stream channel, two ditches [7] and [9] (Fig. 12, Section 2) ran into the channel, where they were engulfed by later deposits. Ditch [9] (fill 10) contained a pottery fragment dated to the 1st century AD, giving a *terminus post quem* for the silting up of the channel.

Discussion

In the Early Bronze Age, settlement activity is represented by two pits containing Beaker pottery. Late Bronze Age activity is represented by a single pit. The majority of the worked flint was retrieved from features

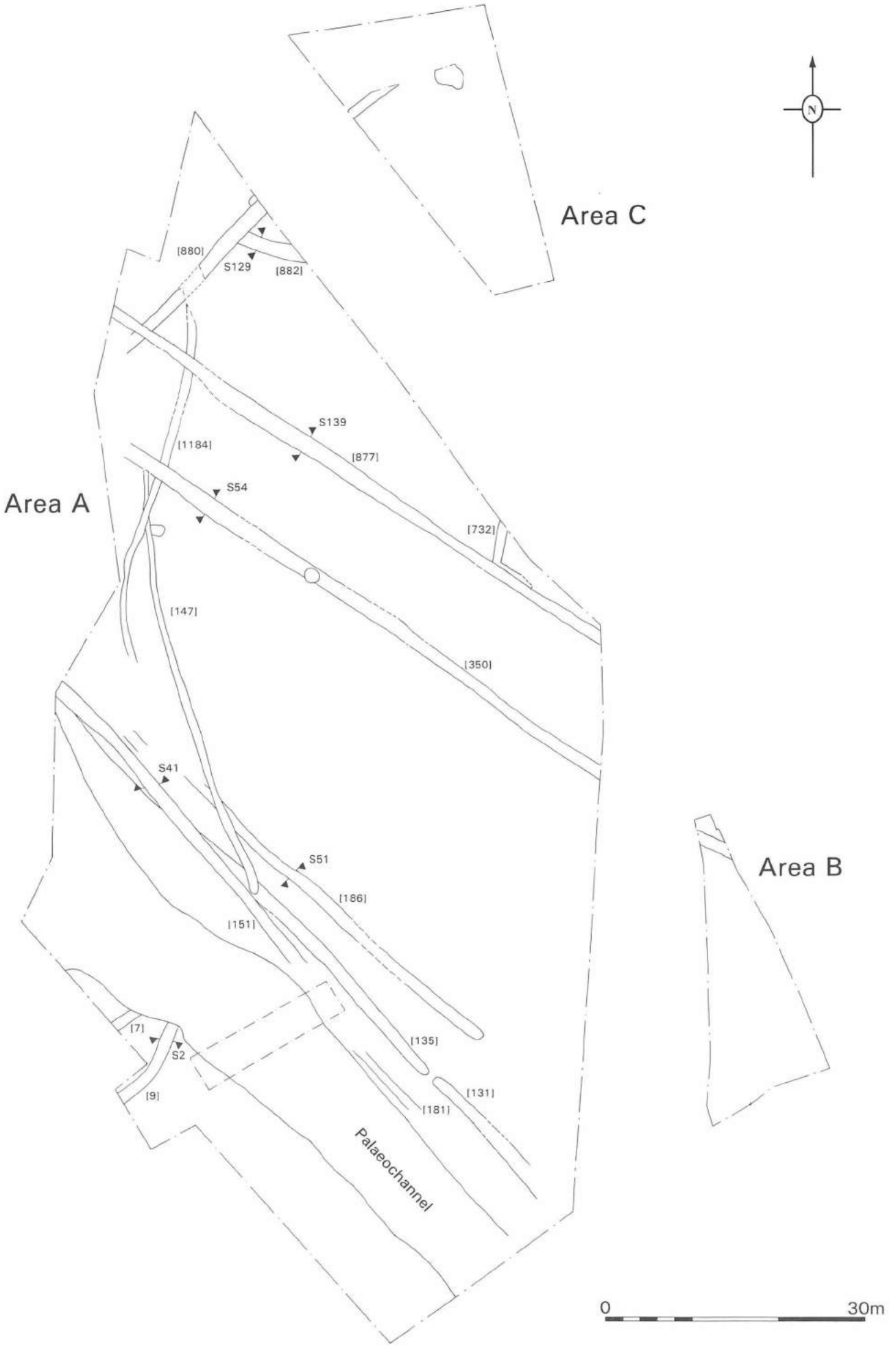


Fig. 6 Langford Road, Heybridge 1994. Plan of late Iron Age/early Roman features.

in the same area as the Early Bronze Age pits, the higher flatter ground above the palaeochannel. With the exception of pit [818] none of the flint came from otherwise dated contexts, and so whilst flint was found in the postholes of Buildings 1 and 2, and other pits and post holes nearby, in the absence of pottery these features cannot be closely dated, but probably lie within the period Early Bronze Age to Middle Iron Age. It is conceivable that Buildings 1 and 2 are earlier than Middle Iron Age, as no pottery of this date was found in the area. Post-built roundhouses of Early to Middle Bronze Age date are rare in Essex, although are better represented in the Late Bronze Age to Middle Iron Age. The picture is one of low intensity and short-lived use, with activity perhaps spread out along the terrace gravels above the water channel. Building 3 is undated, but may be later (see below).

The Middle Iron Age is represented by linear ditches, pits and post holes containing domestic pottery. These ditches are the earliest found within the excavation area, signalling the beginning of a more organised landscape. Building 3 may date to this period and the general spread of burnt flint noted across Area A, sealing ditches dating to the Middle Iron Age, suggests that cooking was taking place.

By the Late Iron Age, the excavation area had been given over to agriculture rather than occupation with field boundaries cut. This perhaps reflects a shift of population to the increasingly nucleated settlement to the south-east (a Late Iron Age origin for the Roman 'small town' is now well attested by the recent excavations). The apparently systematic layout of ditches [186], [350] and [882] suggests organised farming of the settlement hinterland, with the 10m wide track or droveway suggestive of a mixed pastoral and arable agricultural economy. This intensification of agriculture is presumably related to the needs of the nearby nucleated settlement. The initial layout of field boundaries was maintained and modified, with the recutting of existing ditches and the digging of new ditches on the western side of the site.

It is of note that the Late Iron Age/Early Roman ditches may reflect earlier land-use divisions. Bronze Age activity was located to the north of the later course of ditch [350], along with Buildings 1 and 2 and a concentration of post holes and some small pits. To the south of [350] Middle Iron Age and Late Iron Age activity was found, and in particular numerous pits and post holes and Building 3. These divisions continued into the Roman period with the trackway apparently dividing areas of different land use well into the 2nd century.

Romano-British (Fig. 7)

1st-2nd century AD

Continuity of the Late Iron Age/Early Roman agricultural landscape is indicated by the continuing use of the trackway, ditches [350] and [877] both remaining significant features into the 2nd century AD. Ditch [350] was recut at least once [711], and [877] may also have been recut. In this period there appears to be a difference between the type of activity found either side of the trackway. To the north of it virtually no Romano-British activity was identified until the later Roman period when pits were dug over the line of the trackway. It is therefore probable that this area was farmland throughout the Roman era. To the south of the trackway more activity was revealed, including ?storage pits and burials.

Building 4 (Fig. 8) was a rectangular structure defined by a series of post holes 0.10-0.20m in diameter, enclosing an area 6m wide and in excess of 9m long (the south-east end was not found). The long axis of the building lay parallel with the trackway. No structural evidence or occupation debris survived to identify specific use, but the building probably had a non-domestic function such as a barn. No associated dating evidence was retrieved, but by virtue of its rectangular plan it has been allocated to the Romano-British period rather than earlier. In her examination of Roman agricultural timber buildings in Britain, Morris (1979, 82) notes that rectangular buildings had a maximum width of 6.1m, and so Building 4 is just within the upper limit.

A well [60] (Figs 9 and 12, Section 52) lay immediately south of Building 4. It consisted of a large circular cut measuring 4.60m in diameter and 1.70m deep, cutting the natural gravels to below the present water table. The sides sloped steeply for 0.45m breaking sharply into a gently curving convex slope before falling away steeply to meet the flattish-base of the well. It was later recut [241] in a funnel shape with very gently sloping sides giving way to a vertical shaft. The top of [241] was 4.30m wide and the shaft was 1.40m wide. There was no evidence of a lining to the original well cut [60], but the remains of timbers on the east side of the well suggest some form of wooden access was constructed. This survived as a line of five deeply driven stakes revetting a number of roughly hacked-off branches and two pieces of reused planking laid horizontally to the east of, and pushing against the line of, the stakes. Plank (1567) measured 0.75m x 0.18m x 20mm with a chamfered edge on long face. Plank (1568) measured 0.74m x 0.22m x 25mm. A circular peg-hole 50mm in diameter was cut in the centre of the plank. The stakes were equally spaced 0.25m apart. A timber stake (758) was driven horizontally into the wall of the well, presumably to stabilise the revetting structure. The wood only survived below a depth of 3.15m, and none of it was suitable for dendrochronology. The well was infilled with three fills of loose sandy gravel before it was recut by [241]. Pottery from the primary infilling suggests a mid 2nd-century or later date. Recut [241] appears to have been timber lined but only traces of it survived. Four stakes were driven through the base of the shaft to define a square. The primary fill

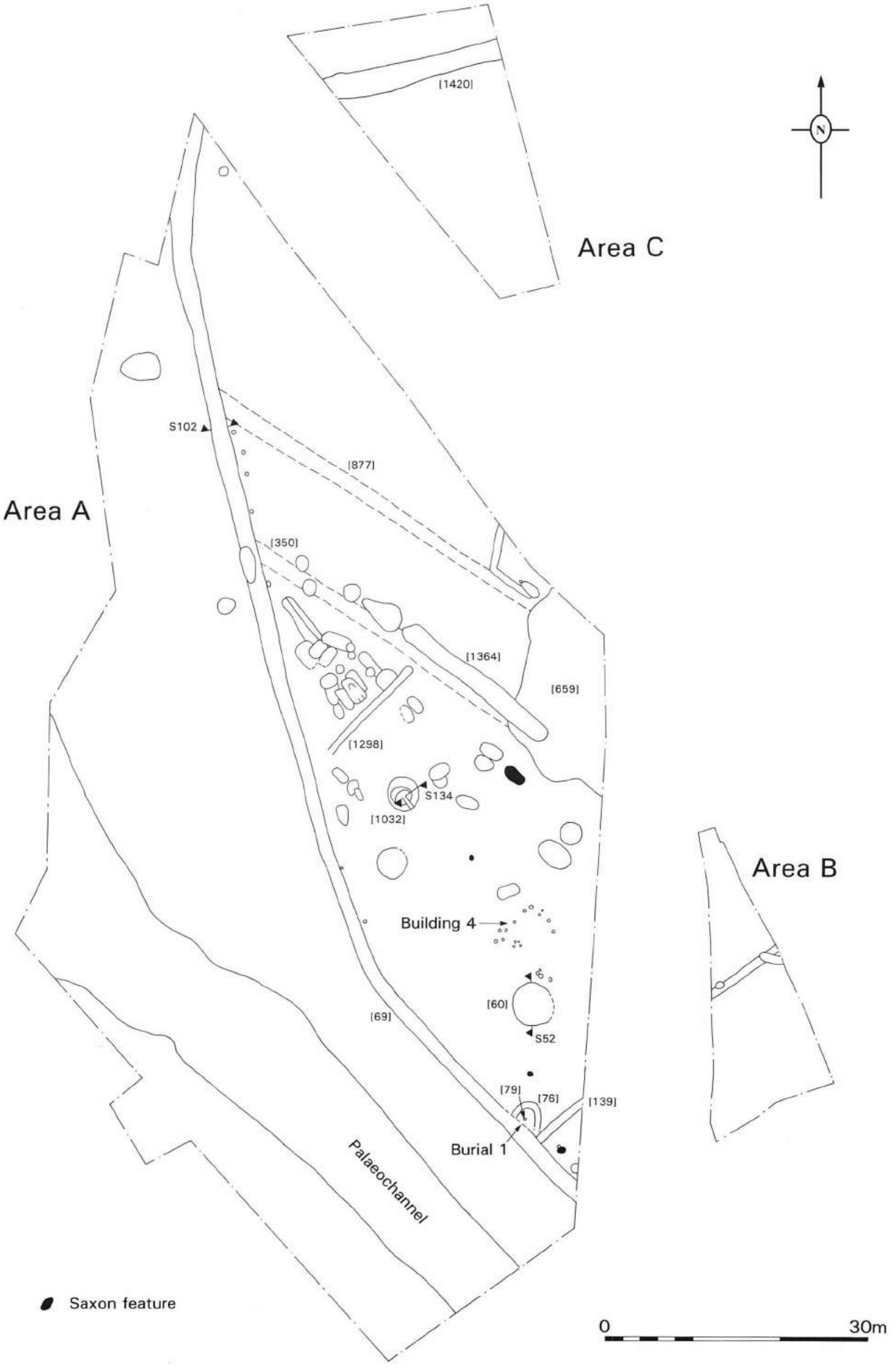


Fig. 7 Langford Road, Heybridge 1994. Plan of Roman features (open outline) and Saxon features (blacked in).

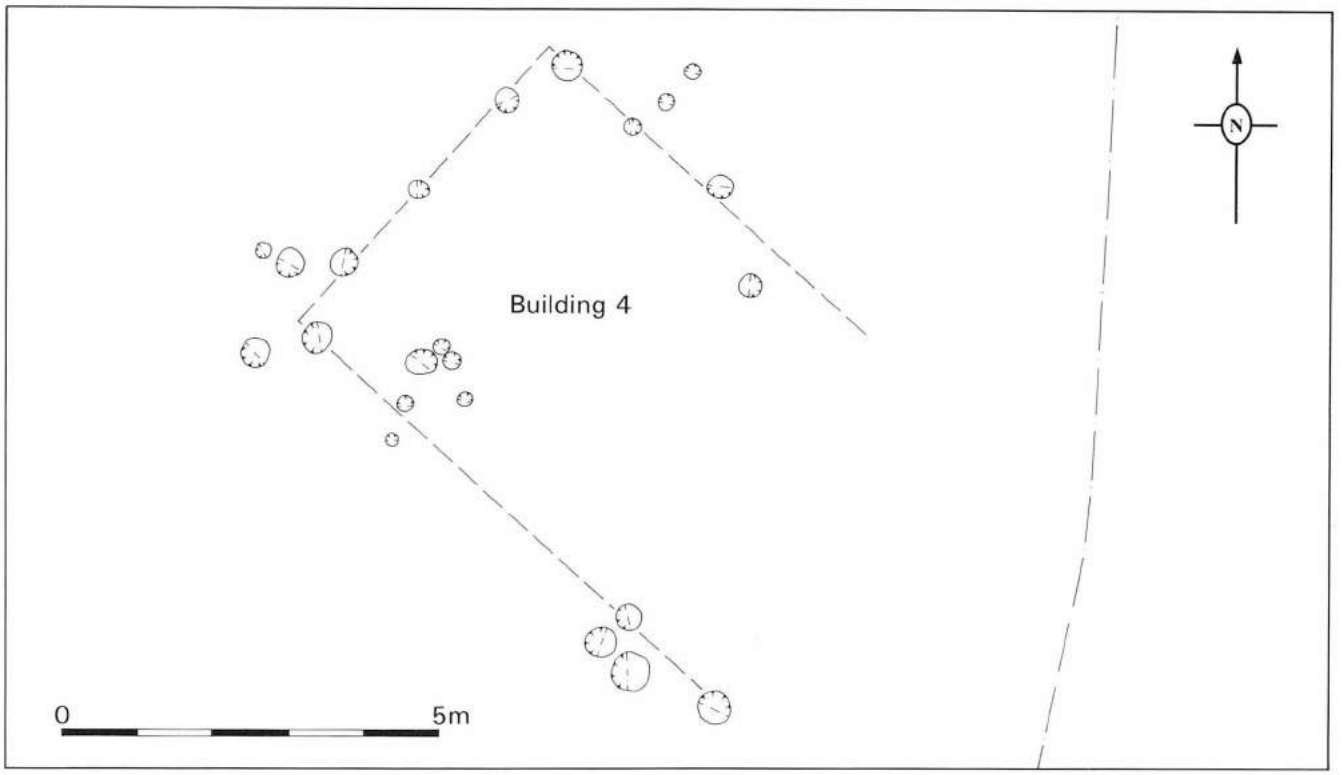


Fig. 8 Langford Road, Heybridge 1994. Detailed plan of building 4.

of the shaft was a dark grey organic-rich silty gravel (1571) covered by subsequent dumps of sandy gravel (1573) and (227). Analysis of the plant and insect remains from the well suggest that the well was located close to, or in, an area of predominantly arable land, at some distance from settlement. The uppermost filling of the well (156), (243), and (61) comprised a single dump to judge from the joining sherds of several residual Roman vessels found in fills (156) and (61). This infilling can be dated to the Early Saxon period.

An isolated cremation burial, Burial 1 (Fig. 11), was found at the southern end of the site. It consisted of the ?plough-damaged base of a cooking pot or jar in Going fabric 47 (below) with a hole cut in the base (78), which contained the cremated bone of an unsexed adult (cremated bone report, below) and four iron hobnails. In the absence of the remainder, the vessel can only be dated generally to the 2nd – 3rd century. It was set in a small cut [79] in the middle of a D-shaped or possibly oval shallow ditch [76], which was filled with a grey-brown sandy silt (77) containing early to mid 2nd-century pottery along with some redeposited Iron Age sherds. The cremation was cut by ditch [69] unlike the other cremations, discussed below, which are presumed to be later than the ditch.

Late 2nd century onwards

In the later 2nd or 3rd century, a significant change in land organisation occurred with the cutting of ditch [69] (Fig. 12, Section 102). It ran along the north bank of the stream channel and curved northwards to run in a straight line into the northern limits of excavation. This ditch appeared to have some post holes cut along its eastern (inner) edge: four such, 0.20m in diameter, occurred where the ditch ran across the trackway, and a further three were identified to the north. The ditch followed the highest contour of the sloping ground enclosing the relatively flat land settled in the pre-Roman era. The purpose of this ditch is not clear; it may have been simply a land boundary, or else enclosed a farmstead or some such, but as the majority of the enclosed area fell outside the limits of excavation this cannot be ascertained. This ditch does not respect the Iron Age-Early Roman ditch alignments, and cuts across the trackway, presumably marking an end to its use. Ditch [1420] found in Area C may have been contemporary with [69], as may ditch [139]. This lay near the southern limit of the site and at right angles to [69]. It was seemingly cut by [69], but as it did not continue beyond that ditch to the south-west, they may have been contemporary. Ditch [139] might have served to delineate Burial 1 from whatever activity took pace to the east (outside the excavation area). Further evidence for the disuse of the trackway came with the cutting of six pits along the line of the south-west boundary ditch [350]/[877] of the trackway, and the fact that the latter was sealed by layer (659). This

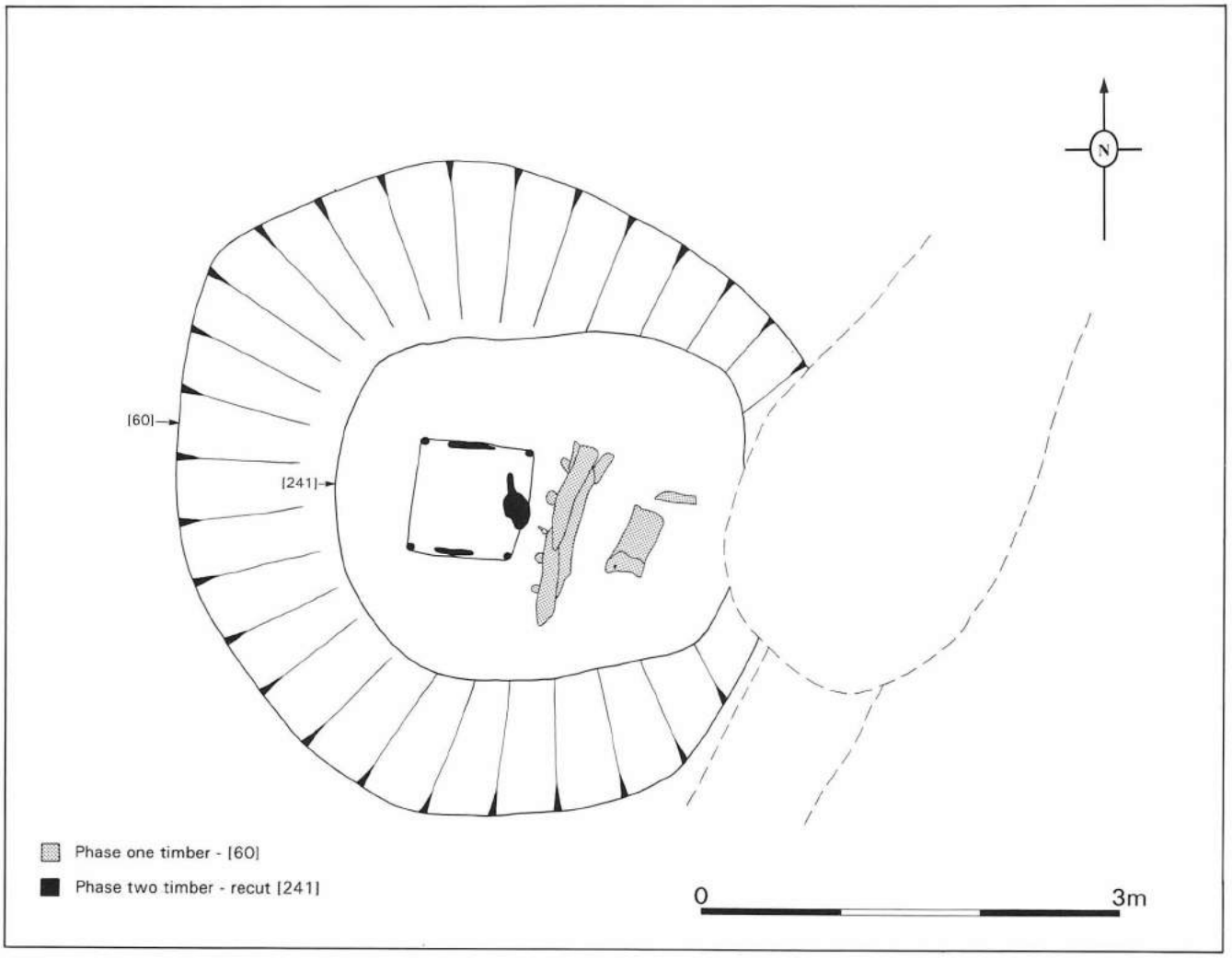


Fig. 9 Langford Road, Heybridge 1994. Plan of the Roman well.

deposit was visible on the high ground in the middle of Area A and overlay ditches [350] and [877] as well as a number of pits. Another layer [1364], which had a high charcoal content, partially overlay (659) and also overlay and respected the line of [350]. These layers might have accumulated against a bank which went with ditch [350], and could represent the final infilling and levelling of [350], whether this was through deliberate action or not. Both these layers were *c.* 0.10m thick and their mode of deposition is not known; they might be a cultivation soil. They were partially excavated by hand and then removed by machine to reveal the features below. Small circular features cutting [659] are interpreted as root disturbance. Both layers contained later 2nd-century pottery (including samian stamp 2, see below) which should date the final filling of the ditches; this is consistent with the mid 2nd-century *terminus post quem* for ditch [69] which blocks the trackway (a date provided by Burial 1 which the ditch cuts).

The burials (with comments on the pottery by A. T. Croom). (Fig. 10)

The cutting of ditch [69] was accompanied by further changes, most notably the use of an area of land to the south-west of the former trackway for cremation burial. Five certain (and two possible) cremations and one possible inhumation were found within a triangular piece of land that was utilised as a burial ground by the later part of the 2nd century. Two sides of this triangle were defined by ditches [69] and [350] crossing to the north, and the third side by ditch [1298]. Prior to its use for burial a large number of pits had been cut in this area. Ditch [1298] terminated 0.50m short of [350] suggesting that although the trackway no longer functioned with the cutting of [69] it was still a visible feature in the landscape, perhaps with the bank still slightly raised. This burial area had been heavily truncated and disturbed by later ploughing. The cremation vessels appear to have been placed above the grave goods and covered in earthen mounds, although the

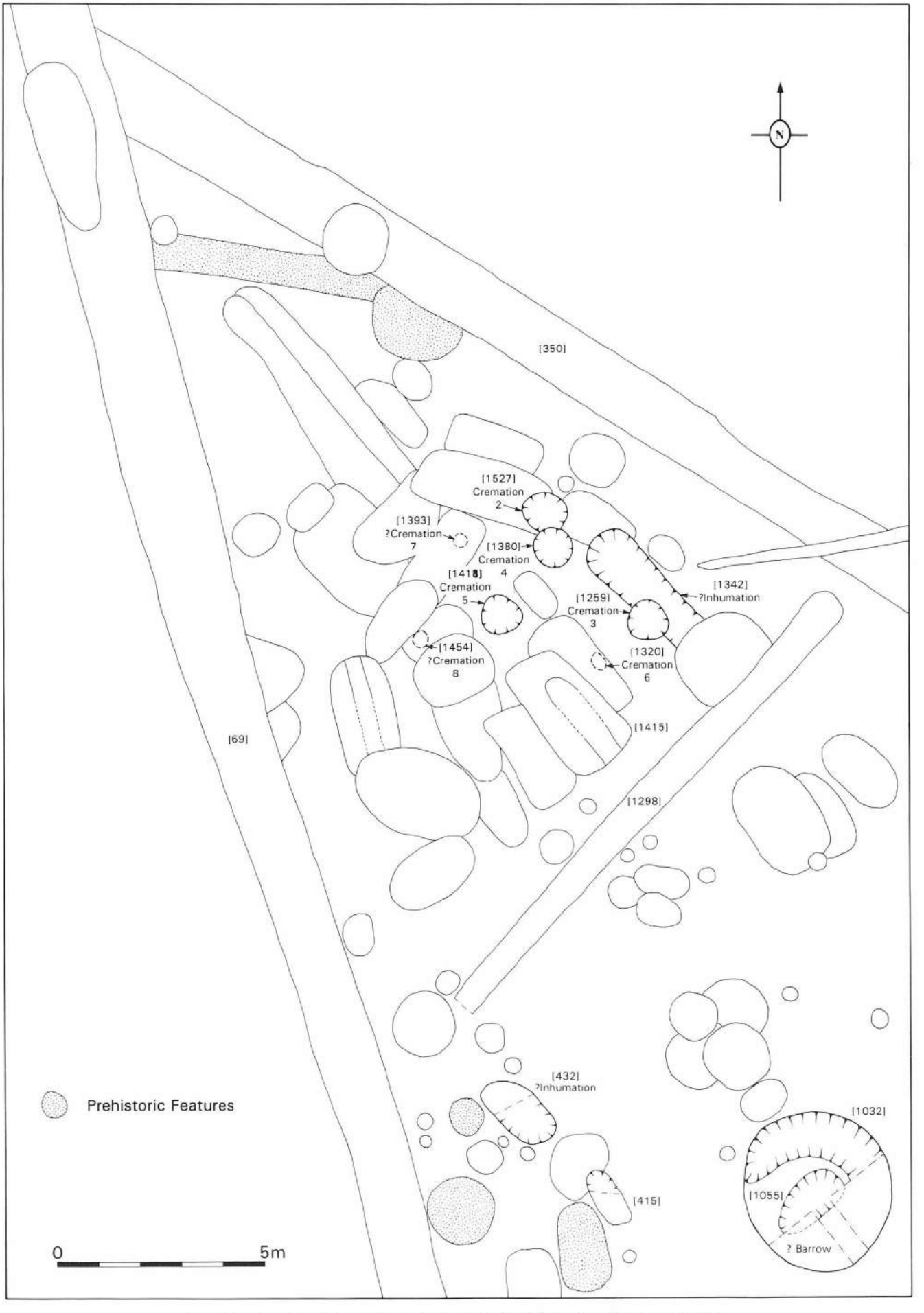


Fig. 10 Langford Road, Heybridge 1994. Detailed plan of Roman burials.

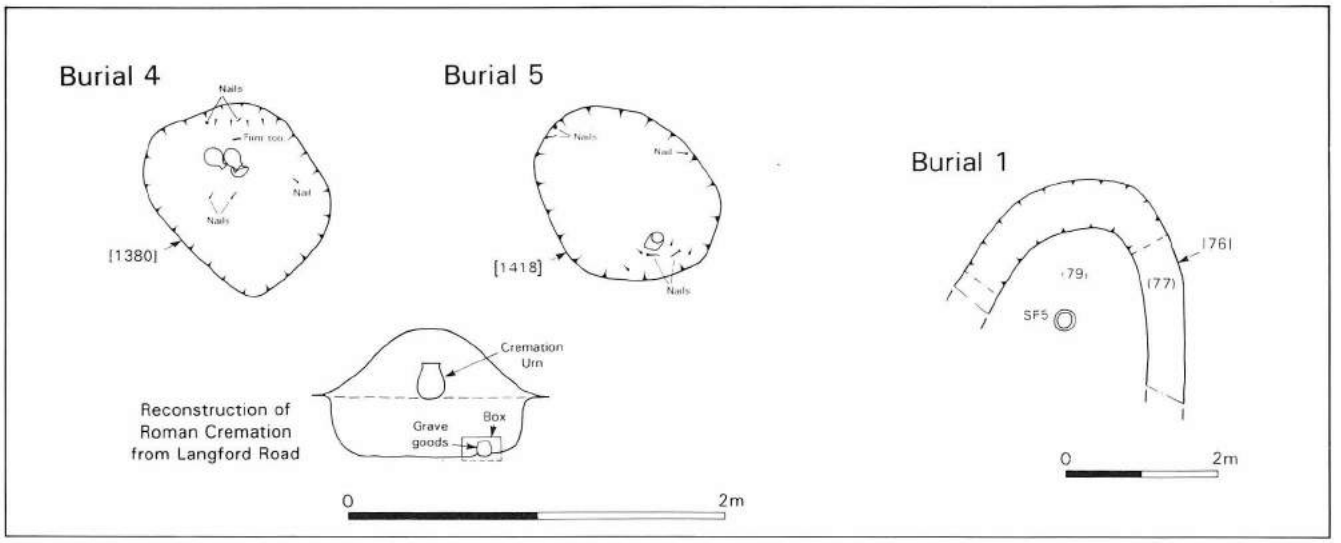


Fig. 11 Langford Road, Heybridge 1994. Detailed plans of burials 1, 4 and 5.

horizon in which they were found was indistinguishable from the general subsoil (6). The surface of this area (1160) had a large amount of pottery scattered across it, most likely disturbed from the known and further unrecorded, more ephemeral, cremations.

Cremation 2 consisted of pit [1527] which was 1.30m in diameter and 0.32m in depth. It contained fragments of pottery and small fragments of burnt bone, perhaps derived from the pot containing the cremated remains of a mature/older adult (below). Overlying this pit was the base and much of the body of a large storage jar which contained the cremated bone and two iron nails. In the base of this vessel there was a small hole plugged with lead. An East Gaulish Dr 18/31 samian dish of Antonine date was placed over the top of the cremation vessel.

Cremation 3 consisted of pit [1259] which was 1.0m in diameter and 0.30m in depth. A damaged cooking-pot or jar in Going fabric 47, of which only the base and some lower body sherds survived, sat on the surface of the pit. It contained the cremated bone of an older ?female (below), six iron nails and fragments of iron sheeting. In the same pit was the base of another vessel (Going fabric 47/S) that may also have been buried complete. The pit, however, also contained a large amount of general mixed sherds, including sherds in Going fabrics 8 (late 2nd – early 3rd century), 39, 42 and sherds from other vessels in 47, and so the second base may simply have been deposited with the general backfill.

Further sherds from vessels associated with Cremations 2 and 3 were found in the overlying layer (1160), as was part of an indented funnel-necked beaker (Fig. 15, 3) which may have come from either Cremation 2 or 3. Both burials can be dated to the late 2nd - early 3rd century on the evidence of the pottery from their own contexts, but the presence of the beaker in either one would push the date forward to the mid 3rd century, on the dating of the Heybridge 1972 kiln products (Wickenden 1986, 49).

Cremation 4 (Fig. 11) consisted of pit [1380] which was 1.0m in diameter and 0.20m in depth. It contained a complete flask dated *c.* 70 – 110 (Fig. 15, 5), a complete poppy-headed beaker (Fig. 15, 6) dated *c.* 150/60 – 190, and a broken, stamped Dr 33 samian cup dated *c.* 160 – 190. In addition to the pottery, a Neolithic flint blade and six nails were also present. The flint tool appears to have been deliberately deposited, the pots and flint being placed together at the north end of the pit and surrounded by nails. Fragments of a flagon, possibly the cremation vessel, and a sherd of samian were found on the surface of the pit. A mid to late 2nd-century date is likely for this burial. No cremated remains were found.

Cremation 5 (Fig. 11) consisted of pit [1418] which measured 1.0m in diameter and 0.30m in depth. It contained a complete Colchester colour-coated beaker (Fig. 15, 7), which can be broadly dated mid 2nd - mid 3rd century at its south end and five iron nails to the north, east and south. No associated cremated remains or container were found.

Cremation 6 proved to have been heavily truncated and had no visible cut. It consisted of the base and fragments of a shell-gritted cooking pot (Fig. 15, 9), possibly the cremation vessel, and an iron finger ring (Fig. 17, 4). These were lying on the surface of pit [1320], the fill of which (1321) contained sherds of Going fabrics ?32, 41 and 47, including part of a 47/S cooking pot (Fig. 15, 10) and a cooking pot with an exact parallel at the Heybridge kiln site (Fig. 15, 11). Sherds of the shell-gritted vessel were also found in another pit [1415], the fill (1416) also containing the

major part of a Dr 36 samian bowl, dated to the late 2nd - mid 3rd century. It is possible that the samian bowl originally accompanied a cremation. The remains of another pot containing cremated bone was found in layer [1160] to the south of the cooking-pot on the surface of pit [1320], although it may have originally been part of Cremation 6. The Dr 36 bowl, and the cooking pot with the kiln parallel, date the cremation to the late 2nd to mid 3rd century.

Possible Cremation 7 comprised a group of pottery fragments, including the base of a flagon (Fig. 15, 12), and two iron nails found on the surface of the fill (1415) of pit [1393]. A further group of pottery fragments, including a large part of a rounded-rim dish (Fig. 15, 16), was found just to the north of this pit and possibly derive from the same heavily truncated burial. It appears that the grave was disturbed in the Early Saxon period as sherds from the flagon and the rounded-rim dish were found in the final phase of infilling (61) of the well. The pottery associated with this ?cremation would be consistent with a 3rd-century date.

A further possible burial, Cremation 8, might be represented by a complete flat-tile found on the surface of pit [1454] which could have formed the floor of a tiled cist containing cremated remains. Tiled cists generally take the form of either simple cubes, or chambers of triangular section. Variants of the cube form are known from Colchester (Philpott 1991, 10). This tile is the only large piece of building material found on the excavation and the adhering *opus signinum* points to it originally being part of a building (not from this site).

The presence and position of nails accompanying the grave goods, particularly in Cremations 4 and 5 suggests that the goods may once have been within simple wooden containers. No metal fittings were found. Box burials are well attested in southern England, but normally with the cremated remains inside the box along with some, or all, of the grave furnishings. At Langford Road it appears that only the grave goods would have been contained within the box and that the cremation vessel was placed above it. This is an unusual variation but not unique. At Braughing, Herts., Burial 4 consisted of an urn containing cremated bone at the south end of the grave. In the centre were the iron and bronze fittings from a wooden box which may originally have contained the glass vessel and pottery vessel found here; three samian vessels were placed at the disturbed north end of the grave (Stead 1970, 42). A concentration of box burials has been noted in Essex, and if Cremations 4 and 5 are considered to be box burials they fit into this local group. Nine box burials at Skeleton Green, Herts., were provided with between two and five vessels. Almost all had a large vessel containing the cremated bone, a dish, often samian, and usually a flagon or beaker or both (Borrill 1981). Box burials occur in Essex from the late 1st century through to the early 4th century (as at Kelvedon; Rodwell 1988, 42) and apparently become less richly furnished after the 2nd century (Philpott 1991, 19).

A large group of pits were excavated to the south of the trackway, particularly in the area later given over to cremation burial. Their function is unknown but one of them, rectangular cut [1342], may have contained an inhumation burial. The cut was 3.2m long by 1.1m wide and orientated north-south. At the south end of the cut were a series of nails seen in section to form a semi-circle around the base. Also at the south end were 39 hobnails, the remains of boot(s). Whilst the cut is very long to be a grave the position of the hobnails at one end and the nails recorded in section suggest that this might have been a burial contained within a wooden coffin. The absence of bones is readily accounted for by the acidic gravel subsoil. If this is the case, it predated Cremation 3.

Two further possible graves were found to the south-east of ditch [1298] which defined the cremation area. Possible grave [432] comprised a rectangular cut 2.3m by 1.m with its long axis aligned north-west/south-east. At the north-west end of the cut was a later 4th-century crossbow brooch (Fig. 17, 1), and in the middle by the eastern edge was a plain copper-alloy disc. Given the position of these objects in the cut, and the overall paucity of metal finds from the excavation, they are suggestive of grave goods. This feature lay in close proximity to [415] (fill (416)) which may also have been a grave. It contained an almost complete funnel-necked beaker (Fig. 15, 21) of late 3rd-century form at the north end of the cut. The 4th-century date of ?grave [432] means it post-dates the cremation group, which in turn is stratigraphically later than the possible inhumation burial [1342]. It should however be noted that the contemporary use of mixed burial rites is known from other sites in south-east England such as Mucking, where inhumation and cremation occurred contemporaneously in the 3rd – 4th century (Philpott 1991, 56).

A further feature may be discussed here in relation to burial activity. Cut [1032] was a small ring ditch, 4.10m in diameter which encircled and cut pit [1055] (Fig. 12, Section 134). Late Iron Age and Roman pottery came from fill (1033) of [1032]. The purpose of this feature is unknown but it was possibly a barrow. No bone was found, but bone not contained in a ceramic container would have disintegrated in the acidic soil.

Discussion

The pattern of the landscape organisation established by the Late Iron Age continued into the Romano-British period, the absence of features to the north of the trackway suggesting agricultural use. To the south of the trackway there is evidence for a variety of different functions not associated with cultivation; the well, the rectangular (probably agricultural building), storage pits, and areas given over for burial. This division

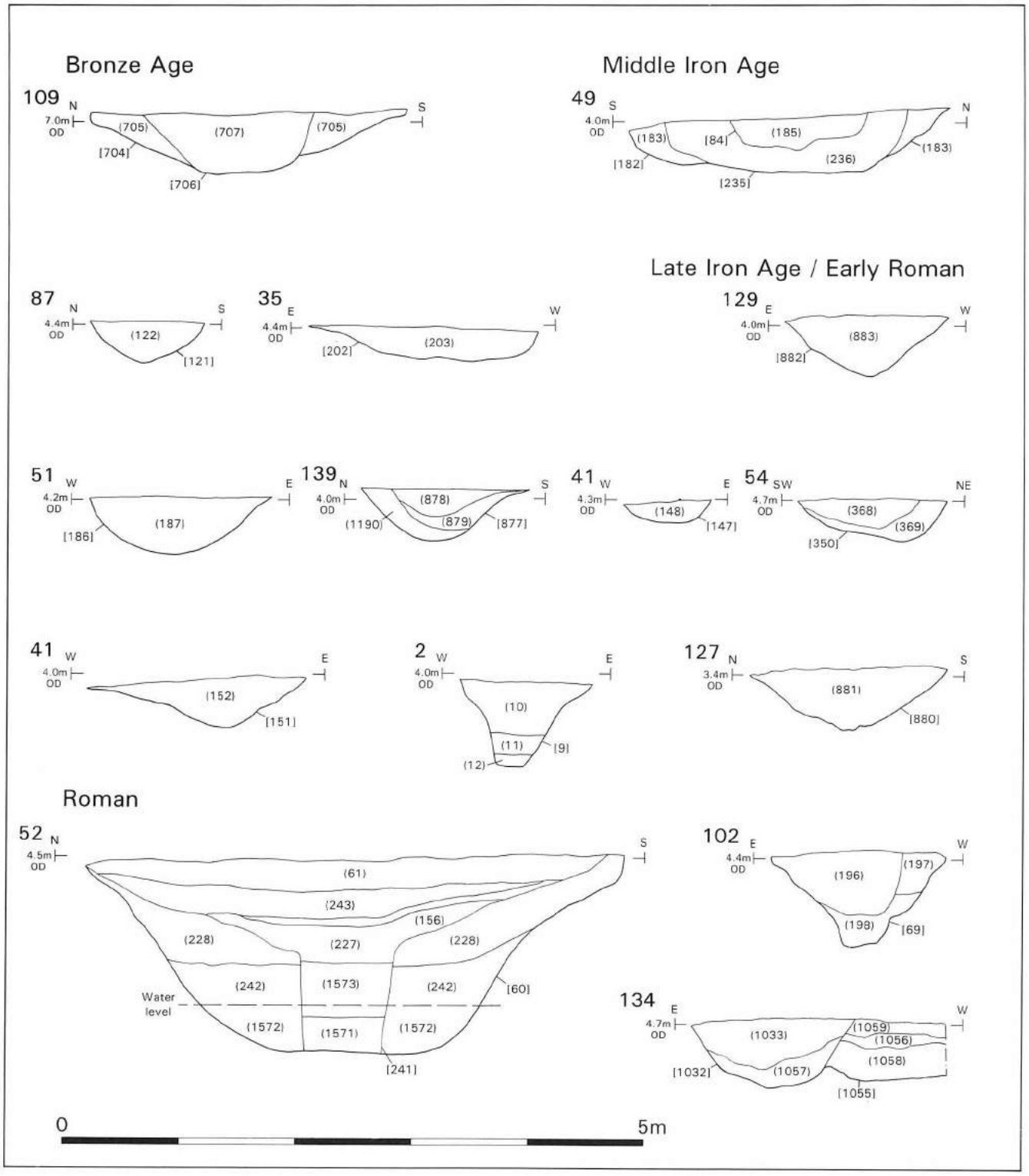


Fig. 12 Langford Road, Heybridge 1994. Selected sections.

in land use between the north and south parts of the excavation area continued even after ditch [69] was cut. No evidence for actual settlement was found but it is possible that ditch [69] was the south-western boundary of a large enclosed farmstead. The burials are suggestive of a small plot on the periphery of a settlement, as has been found at other rural sites such as Owslebury, Hants., where small burial plots were found scattered on the limits of a long-lived farmstead (Collis 1977). At Langford Road there was very little

evidence for Late Roman activity, with the exception of the possible inhumation [432]. The late 3rd to 4th-century pottery which occurred residually in the Early Saxon infilling of the well does, however, point to activity of this date in the general vicinity.

Early Saxon Features (Fig. 7)

Only three post holes and a pit can be dated to the Saxon period, along with the final infilling (61) of the Roman well [60]. Of the 120 Saxon sherds recovered, 110 came from (61). They were mixed with the latest Roman pottery from the site (late 3rd-4th century) and pottery that originated from ?Cremation 7. Whether the burial was deliberately disturbed is not known, but some form of clearance was undertaken. These features were located on the crest of the slope to the north of the stream channel. It is conceivable that the post holes formed part of a north-south fence or boundary line.

Discussion

No Saxon structures were found on the site, indicating that the Saxon occupation represented by the sunken-floored structures found to the east at Crescent Road (Drury and Wickenden 1982) did not spread as far as this site. The occasional Saxon features, located at the south end of the excavation area on sloping ground above the water channel, are the only evidence of activity in the Early Saxon period. There is little evidence for the fate of the agricultural system in the immediate post-Roman period but the absence of later ditches implies that the era of intensive land exploitation, at least locally, was over. The lack of continuity of the Romano-British landscape into the post-Roman period implies a breakdown in the agricultural organisation that had been a feature since the Iron Age.

General conclusions

The excavations at Langford Road present a picture of unintensive settlement in the Bronze Age/Early Iron Age, giving way to a more overtly agricultural landscape in the Late Iron Age/Early Roman period with the appearance of field boundaries. This intensification in the use of gravel terraces for agricultural production from the Late Iron Age through to the Roman era is a familiar pattern in lowland Britain. On a more local level, aerial photography has revealed extensive Late Iron Age and Roman field boundaries and farmsteads on the gravel terrace to the north of the Blackwater and the results of the present excavation should be seen within this framework. This intensity of activity, in marked contrast with what came before and after, is a testament to the need to support the greater population associated with the burgeoning 'small town'. The agricultural produce may not have only been used to feed the local population, but perhaps also traded. The Trinovantes had well established links with the continent prior to the Roman invasion of AD 43, and urban centres such as Heybridge may have played a part in continental trade.

The finds

Cremated bone

by Jacqueline I. McKinley

Cremated bone from Cremation burials 1, 2, 3 and 6 was examined.

Methods

Analysis followed the writer's standard procedure for the examination of cremated bone (McKinley 1989; 1994a). The cremated bone was passed through a sieve stack of 10, 5 and 2 mm mesh size. The relative weights of bone from each sieve and the maximum skull and long bone fragments, illustrates the degree of bone fragmentation in each context. Identifiable bone was separated for further examination being divided into skull, axial, upper and lower limb categories (archive). This may demonstrate any deliberate bias in the skeletal elements collected for burial. Age was assessed from the stage of epiphyseal (McMinn and Hutchings 1985; Webb and Suchey 1985) and cranial suture fusion, and other age-related degenerative changes to the bone (Bass 1987). Categories used;

older subadult: 15-18 years
adult: 18 years +
mature adult: 25 years +
older mature adult: 30-45 years
older adult: 45 years +

Gender was ascertained from the sexually dimorphic traits of the skeleton (Bass 1978), including the maximum cranial vault thickness "1a" taken according to Gejvall (1981). Degrees of certainty; ??= possible.

Pathological lesions and morphological variations were recorded and diagnoses suggested where appropriate. Anatomical terminology according to Gray (1977) and McMinn and Hutchings (1985).

The results are presented in Table 1.

Full details of all identified bone are presented in the archive report including; the number of identified bone fragments with the descriptions of morphology and pathological lesions; bone measurements taken in addition to those presented in Table 1; variations in the colour of individual bone fragments from the buff/white of full oxidation; any substances adhering to bone.

Disturbance and condition of bone

All of the burials appear to originally have been urned. One (Cremation burial 6) was severely truncated, another (Cremation burial 1) comprised only the plough-damaged base of the vessel acting as the urn. Cremation burials 2 and 3 appeared to be undisturbed.

All the bone, from both disturbed and undisturbed contexts, was in good condition. There was no wear indicative of adverse burial conditions.

Demography

A minimum of 4 individuals were identified. The small size of the group precludes further demographic comment.

Pathology

The *cochlear canaliculus* of the left petrous temporal in Burial 1 (78) has a semi-circular depression and lip forming a 9.6mm diameter arc around it; there is a small "lip" immediately around the canal, a 1.4 mm wide depression, then a deeper lip *c.* 1-2mm up to normal level of surface inferior to internal auditory meatus. The surface anterior of the inferior margins is smoothed, possibly with some new bone

Table 1. Cremated bone: summary results

B.no	Dist	Total wt.	Age	Sex	Pathology/M.V.	Animal
1		576.8g	adult	?	d.l.-l.1st metatarsal head; misc. lesion/m.v. -1 petrous temporal	?
2	*	726.6g	mature/older adult	?		
3	*	781.1g	older mature/older adult	??female	o.p.-atlas anterior facet, L body	
6		28.7g	older subadult/adult	?		

KEY: B.no. = Burial number; Dist. = disturbance, * = undisturbed; d.l = destructive lesion; l. = left; misc. = miscellaneous; m.v. = morphological variation; o.p. = osteophytes; L = lumbar; meta = metatarsal/carpal.

(bone fragment only). The lip and depression may simply represent a morphological variation, the other lesions may indicate some form of infection. Osteophytes (new bone formed at articular margins) may form in response to a variety of conditions. Incomplete skeletal recovery limits the assessment of aetiology for many lesions.

Pyre technology and ritual

The efficiency of cremation was generally good, the vast majority of the bone being the buff/white indicative of full oxidation (Shipman *et al.* 1984).

The maximum weight of bone from a burial was 781.1g, with an average of 753.8g from the undisturbed burials. The maximum weight recovered represents a maximum of 78% of the expected bone weight from an adult cremation (McKinley 1993), probably closer to 30% taken from the average weight. Such weights are not untypical of Romano-British burials, for example an average of 619.2g was recorded from an undisturbed urned burial at Baldock 15 (McKinley 1991) and 899.6g from undisturbed urned burials at St. Stephens, St. Albans (McKinley 1992). Full recovery of bone from the pyre for burial does not appear to have been considered necessary.

The majority of the bone was recovered from the 10mm fraction (40-59%) and the maximum fragment sizes ranged from 35mm in the severely disturbed burial to 91mm. There are many factors which may affect the size of cremated bone fragments (McKinley 1994b), and there was no evidence to suggest any deliberate fragmentation of bone prior to burial.

Other than in the severely truncated burial or cremation burial 6, a range of skeletal elements was included in each burial, with no indication of any deliberate selection.

A small fragment of what may be cremated animal bone was associated with Cremation burial 1. The inclusion of animal remains in cremation burials of this period is not unusual (McKinley 1993).

Flint artefacts

by Graeme Walker

A total of 93 pieces of worked flint were recovered from the excavations, with a further 14 pieces from the earlier evaluation. Half of the assemblage was residual in later contexts, the remaining 50% came from contexts with no secure dating, with the exception of 13 struck pieces from pit [818] which contained Beaker pottery (see below). In addition to the worked flint, 100 burnt fragments were recovered from the excavation in addition to 62 pieces from the evaluation.

Much of the assemblage is in a reasonable condition although slight edge damage can be seen on approximately 50% of pieces. Several are battered and a few are rolled. The composition of the assemblage is given in Table 2.

Table 2. Composition of the flint assemblage by artefact type

Type	No.
Flakes	89
Blades	4
Cores & fragments	3
Scrapers	2
Point/borer	2
Notched flake	2
Combination tool	1
Utilised flakes	1
Leaf-shaped arrowhead	1
Oblique arrowhead	1
Microlith	1
Burnt	162
	2428g

All the flint is of reasonably good quality, the majority being of a dark grey-brown colour, although light grey, dark grey and some honey-coloured material also occurs. Where cortex survives it appears thin and abraded and suggests procurement from gravel or boulder clay deposits.

The presence of a few finely produced broken blades along with a broken obliquely-blunted microlith (Fig. 13, A) indicates Mesolithic activity in the vicinity. Although normally regarded as a microlith-type more commonly found in the early Mesolithic, the small size of the piece perhaps suggests a later date. Earlier forms of microlith are not uncommon in southern and eastern assemblages. A fine end scraper (Fig. 13, G) might also fall within this period, although the type persists into later millennia.

Throughout the assemblage, both hard and soft hammers appear to have been used during reduction. Only one core survives, along with possible fragments of two others. The faceted striking platform suggests a Later Neolithic date for the core (Smith 1965) and surviving cortication indicates re-use of an earlier piece. A possible hammer-stone fragment identified during the evaluation appears upon re-examination to be a natural piece, with surface damage more consistent with battering during rolling than hammer striking. Of the debitage, only four primary flakes were found, the remainder are secondary or tertiary (in equal numbers) suggesting manufacture or repair of implements took place on site, whilst primary reduction was located elsewhere. Most of the flakes display at least some characteristics of Later Neolithic or Early Bronze Age technology, although a few longer, more carefully controlled pieces are probably earlier.

The only independently dated material, that from Beaker pit [818, fill = 820], is a mixture of flakes, implements, broken and burnt pieces (Fig. 13, D – F), and along with the broken Beaker pottery appears characteristic of rubbish disposal.

Two of the most typologically distinct and dateable artefacts, a leaf arrowhead (Fig. 13, B; Type 3A, Green 1980) from the evaluation and an oblique arrowhead (Fig. 13, C) are unfortunately both residual in their contexts. Although leaf arrowheads are generally regarded as a Neolithic form their survival into the Bronze Age is not in doubt (Green 1980). The oblique arrowhead (Class E, Clark 1934) is of a form closely dated to the second millennium b.c. (Green 1980). Both pieces are made on the dark grey-brown flint which forms the majority of the assemblage.

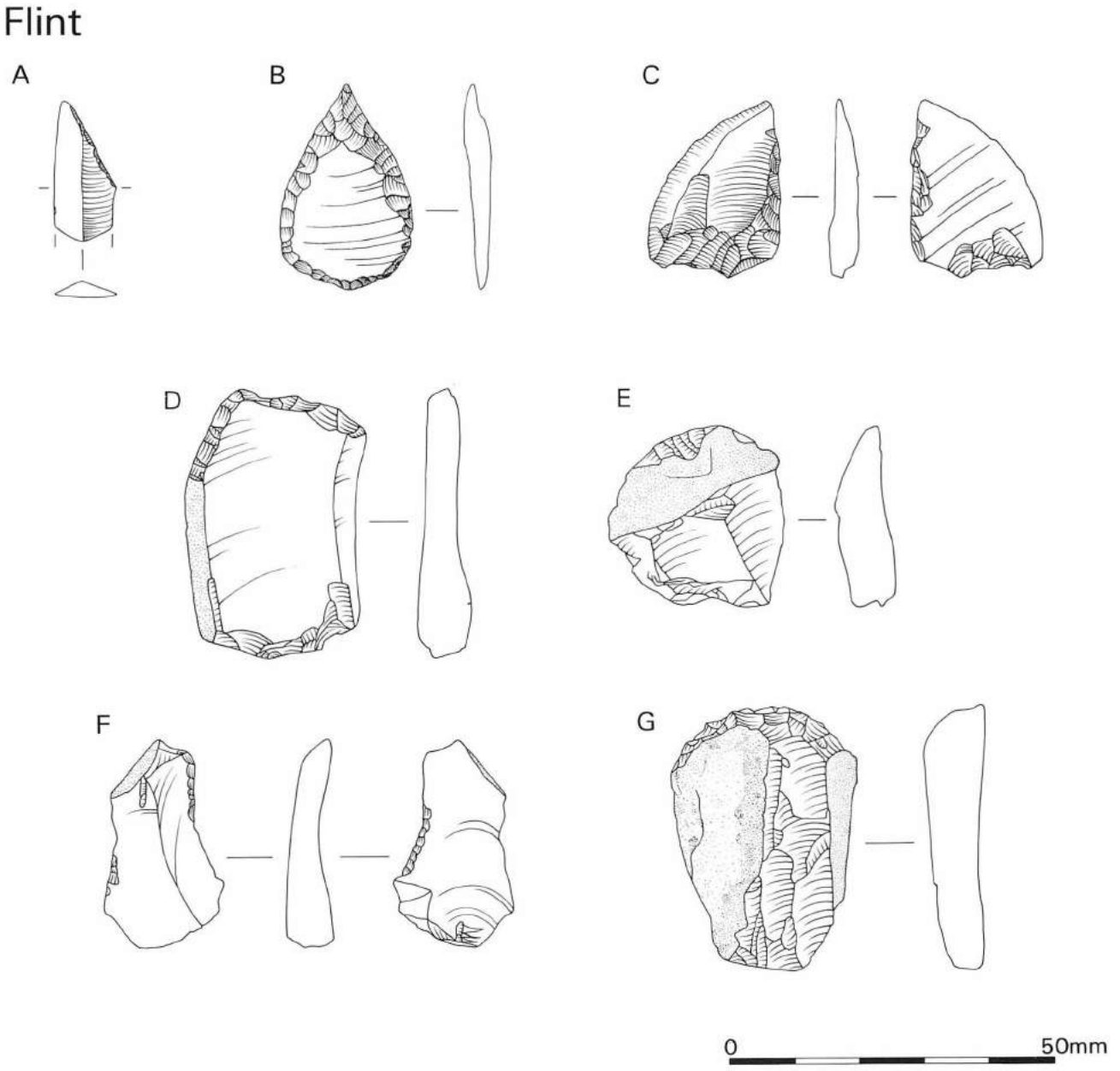


Fig. 13 Langford Road, Heybridge 1994. Flintwork.

Conclusion

At least two, and possibly three industries are represented amongst the assemblage. The Mesolithic component appears small as does the possible Early Neolithic group, and the majority of the material seems likely to fall within the Late Neolithic/Early Bronze Age period. The assemblage bears strong similarities with that recovered from the 1972 excavations at nearby Crescent Road where both Mesolithic and later Neolithic periods were identified (Healey 1986). With the exception of Iron Age pottery, the only other prehistoric ceramic tradition represented at Langford Road was of Beaker date, and the attribution of the bulk of the flint assemblage to this period would seem most likely.

Catalogue of Illustrated Pieces (Fig. 13)

A. Microlith. Obliquely-blunted point. Broken. (1140).
B. Leaf-shaped arrowhead (evaluation 406).
C. Oblique arrowhead (642).
D. Side and end scraper. Possibly utilised along RHS (820).
E. Round scraper. Shallow retouch (820).
F. Secondary flake. Retouch on RHS and inverse retouch on LHS (820).
G. End scraper (evaluation 601).

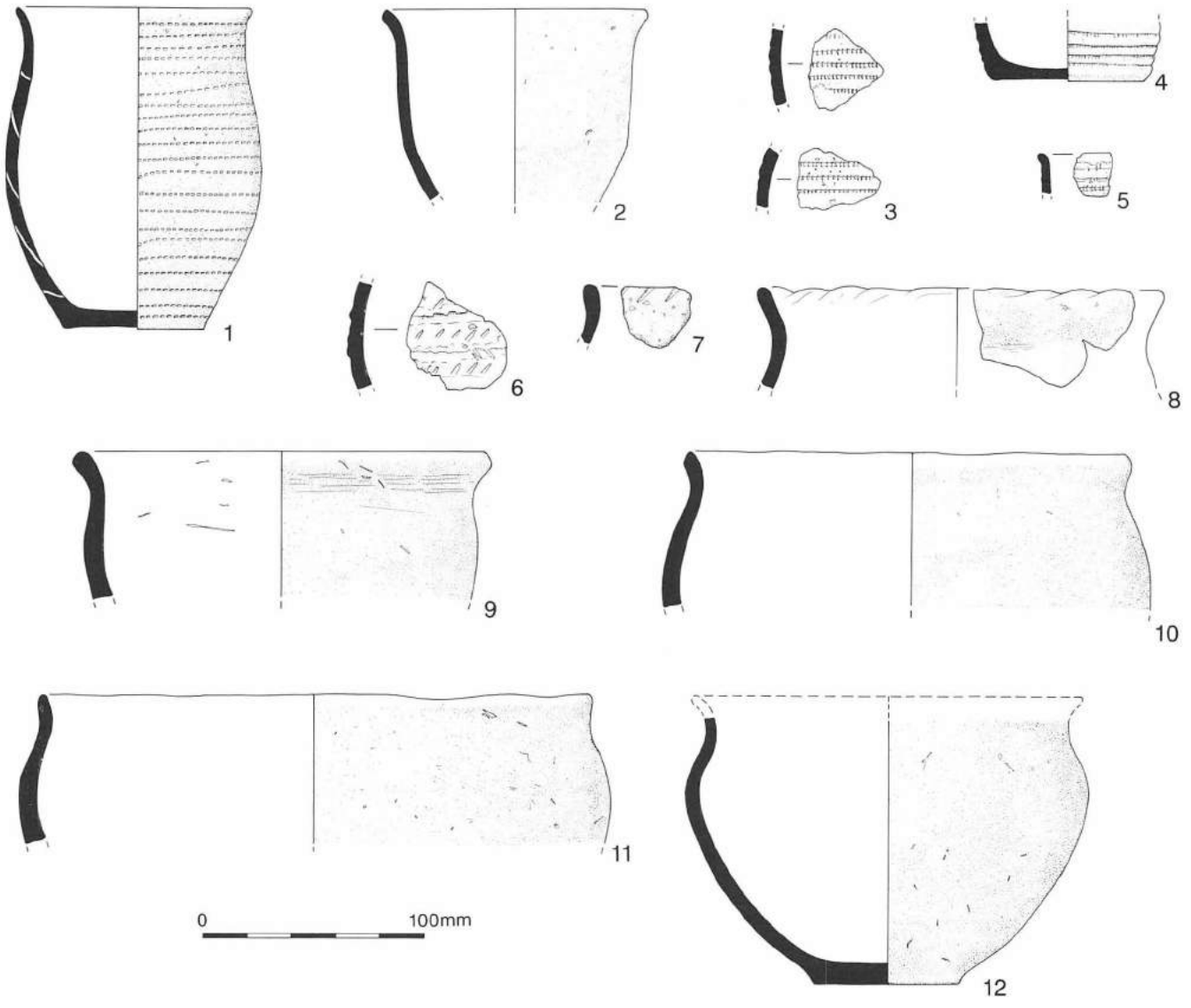


Fig. 14 Langford Road, Heybridge 1994. Prehistoric pottery.

Prehistoric pottery
by Nigel Brown

Description and date

A small quantity of prehistoric pottery (528 sherds; 3686g) was recovered from the site (these figures exclude the complete Beaker from (707)), the majority 498 sherds (3458g) from the excavation, the remainder from the 1993 evaluation. By far the greatest quantity (57% of the total by weight) of pottery came from a single pit [818]. Illustrated sherds represent the full range of variation.

The earliest pottery represented is the complete comb-impressed beaker (Fig. 14, 1) and the material from contexts (819) and (820), fills of pit [818] which also comprises beaker pottery, including a large part of a plain beaker (Fig. 14, 2). Also present were many small body sherds with horizontal rows of 'barbed wire' cord impressions; the largest two illustrated (Fig. 14, 3), and a tiny rim (Fig. 14, 5), also decorated with barbed wire impressions; all these sherds appear likely to derive from the same pot. The material also included two sherds with finger-pinched decoration used to create slight ridges (Fig. 14, 6) and a large part of a flat base (Fig. 14, 4), the lower walls decorated with deep cord impressions which are not as obviously 'barbed-wire' as Nos. 3 and 5.

Of the remaining pottery, 84% is represented by sand or sand-and-flint-tempered fabrics (E, J and P), typical of the Middle Iron Age period (Drury 1978; Brown 1991). There are a few sherds in flint-tempered fabrics which may be rather earlier; these include an abraded rim with slashed decoration on the exterior (Fig. 14, 7), typical of the Late Bronze Age/Early Iron Age (Brown 1988). The remaining vessel rims, and, where reconstructable, vessel forms (e.g. Figs. 14, 9-12), can be easily paralleled amongst the large Middle Iron Age assemblage from Little Waltham (Drury 1978). The cabled rim (Fig. 14, 8) is less common in Middle Iron Age contexts, but is also paralleled at Little Waltham (*ibid.*, figs. 42.6; 44.67). A few sherds (not illustrated) have wiping or light scoring on the exterior; this treatment, or heavier scoring, is again a characteristic of Middle Iron Age pottery in eastern England (e.g. Cunliffe 1974, fig. A:13, A:23).

Discussion

The complete beaker (Fig. 14, 1) would be appropriate to Clarke's East Anglian Group (e.g. Clarke 1970, figs. 390-7). Rectangular toothed comb impression is one of the major decorative techniques employed on East Anglian beakers (*ibid.* 147), which generally display a restricted range of decorative schemes dominated by simple arrangements of horizontal rows of decoration (*ibid.* 146). Frequent

association with 'barbed wire' decorated beakers is also characteristic of the East Anglian Group (*ibid.* 148-9). The Langford Road beaker assemblage as a whole appears typical of Group E in Case's (1993) recently published beaker classification, which incorporates Clarke's East Anglian and Barbed Wire Groups. The presence of undecorated, comb impressed, 'barbed wire' and finger-pinched pottery at Langford Road, is closely paralleled by the material from Barrow II Martlesham Heath, Suffolk (Martin 1976, 22-30). Indeed, within the area favoured by Case's Group E, the association of this range of decorative techniques is a common occurrence, as it is in adjacent parts of continental Europe (Clarke 1970, Table 2). Beaker deposits, similar to those from Langford Road, have been recovered elsewhere in east Essex from Elms Farm a few hundred metres to the south, from Ulting (*ibid.*) 4km to the east and further south at Shoebury (*ibid.* Gibson 1982) and Barling (Wade 1994).

Given the density of Late Bronze Age (e.g. Brown 1988) and Early Iron Age (e.g. Bedwin 1992) settlement in the Maldon/Heybridge area it is perhaps surprising that so little pottery of this date was recovered.

Middle Iron Age settlement is also widespread to the north and east at Howells Farm (Wallis and Waughman forthcoming), Lofts Farm (Brown, P. 1985) and Slough House Farm (Wallis and Waughman forthcoming), with pottery closely comparable to the Langford Road material. The pottery from pit [767] is dominated by fine wares (84% by sherd weight of material which could be described as coarse or fine on the basis of fabric and surface treatment). Reconstructable forms are bowls with smoothed/burnished surfaces (Fig. 14, 8-9), as are reconstructable pots from other Middle Iron Age contexts (Fig. 14, 10-11). Very large storage jars (Brown 1991) are lacking. The pottery thus seems likely to derive predominantly from eating and drinking rather than storage/cooking, and is comparable to pottery from Howells Farm 1km to the north (Brown forthcoming).

Catalogue of illustrated sherds (Fig. 14)

Form refers to Little Waltham form series (Drury 1978).

Fabric Types

Abbreviations

Size of inclusions	S = less than 1mm diameter
	M = 1 - 2mm diameter
	L = more than 2mm diameter
Density of inclusions	1 = less than 6 per cm^2
	2 = 6 - 10 per cm^2
	3 = more than 10 per cm^2

Fabric B	Flint, S - M 2.
Fabric C	Flint, S - M with occasional L 2.
Fabric E	Flint and sand, S-M 2.
Fabric H	Sand, S 2.
Fabric J	Sand, S 2 with veg. voids particularly on surfaces.
Fabric P	Sparse very fine sand may have occasional M-L flint or sparse irregular voids.

Rim forms

1	Flat topped
11	Rolled
13	Externally thickened

1. Complete, ovoid slightly globular Beaker, crushed, distorted and partly broken in ground. Base has slight footring, rounded very slightly everted rim. Surfaces well smoothed but with extensive damage to the external surface, much of which is missing, and which is extensively pitted where fragments of the burnt flint tempering have fallen out. The whole of the external surface was originally covered with horizontal rows of rectangular toothed comb impressions, which survive in large patches and in one case across the complete rim to base profile. Recent fracture caused by handling during preparation of this report has revealed clear coil joins. Fabric B. (707).
2. Plain Beaker, everted rounded rim, straight sided with marked change of angle at carination which just survives on lower parts of sherd. Abraded interior, patch of abrasion on exterior. Fabric B. (819/820).
3. Horizontal cord impressions, slightly abraded. Fabric B. (819/820).
4. Base and lower wall with horizontal 'barbed wire' impressions. Fabric B. (820).
5. Slightly everted rounded rim with horizontal rows of 'barbed wire' impressions. Abraded. Fabric B. (820).
6. Somewhat abraded horizontal rows of finger-tip impressions creating pinched up ridges. Fabric C. (820).
7. Flat-topped rim with slashed lines on the exterior. Abraded. Fabric C. (820).
8. Rounded rim, with impressed decoration giving cabled effect on top of rim. Slightly abraded exterior. Fabric H. Form 1. (431).
9. Well smoothed surfaces with patches of burnish surviving on interior. Fabric J. Form ?13. (768).
10. Rounded rim, interior partly abraded, exterior well smoothed, burnished exterior. Fabric J. Form 11. (768).
11. Flattened rim, smoothed exterior, possibly originally finished with patch of abrasion. Interior abraded. Fabric has a few large flint inclusions. Fabric J. Form 11. (724).
12. Burnished exterior, top of rim missing. Fabric J. Form 13. (604-1993).

The Roman pottery

by A.T. Croom with a contribution from B. Dickinson

Discussion

The site produced 25.692 kg of Roman pottery, including material from at least six cremations. As much of this material is poorly dated, and frequently residual, no detailed quantification is published here, although quantification by EVE and weight is noted in the archive. Within this assemblage, there is a sherd of 1st-century South Gaulish samian (10), and a carinated jar of an early form (209), a type dated by Going (1987, 26) as Flavian to early second century. The great majority of the pottery, however, can be given a general date range of 2nd to 3rd century. The latest pottery occurs residually alongside Early Saxon material in top of the recut well (61), and consists of a Dr 36 imitation in Oxfordshire colour coated ware dated 240-400+ (Young 1977, Type C49) and a flanged bowl or dish of a late 3rd or 4th-century form. Joining sherds of several vessels, including a mortarium (Fig. 15, 20), in this context and (156) below it suggest that (61), (243) and (156) form a dump in the weathering cone of the well.

Fabric Types

The pottery has been catalogued according to the type series and forms used for the Chelmsford material (Going 1987). There is an additional sub-type in Fabric 47 as defined by Wickenden (1986), and a few extra categories from the Colchester type series (Symonds and Wade forthcoming). The 1972 excavations at Heybridge produced a group of discarded pottery including wasters from a series of pits, identified as probably coming from a nearby, but unlocated, kiln dating to the mid third century (Wickenden 1986, 46-50). Some of the vessel forms in the kiln group have parallels in this assemblage, and there is at least one vessel with a slightly warped rim that could be a kiln product. Recent excavations at Heybridge have revealed more kilns in the area (C. Wallace, *pers. comm.*).

Going 1	Colchester colour coat.
Going 2	Nene Valley colour coat.
Going 3	Oxfordshire red-coated ware.
Going 4	Hadham oxidised red ware.
Going 8	Central Gaul/Rhenish ware.
Going 12	?Local mica-dusted ware.
Going 18	Fine slipped red ware. ?Hadham. Fine fabric with fine quartz and sparse ironstone inclusions. Red or light red, slipped. Sometimes stamped.
Going 21	Miscellaneous oxidised red ware. Variety of fabrics, probably local.

Going 32	?North Kent grey ware. Mid-grey core, black margins and surfaces, few inclusions, but some sparse mica. Highly fired and smooth finish.
Going 35	?Hadham black surfaces ware.
Going 39	Fine grey ware. Little or no sand or quartz inclusions.
Going 40	BB1.
Going 41	BB2.
Going 44	Storage jars. Both reduced and oxidised, some with sparse to moderate large inclusions protruding from the surface.
Going 47	Sandy grey ware. Fabric ranges from brownish-buff through grey to near black, with mixed inclusions, sometimes with oxidised core. Wide range of fabrics.
Going 47/S	Coarse fabric, with moderate to abundant sand inclusions, often with gritty surfaces, orange to grey in colour (Wickenden 1986, 47). Includes vessels similar in form and fabric to products of the Heybridge 1972 kiln.
Going 50/51	Shell-gritted ware.
Going 55	Dressel 20.
Col: HD	Shell and calcite-gritted wares.
Col: HZ	Storage jars, tempered with organic inclusions, leaving pitted surfaces.
Col: MQ, fab C	Colchester white-slipped fine ware. Fine soft red fabric, with grey core and white slip, with brown painted decoration.

Other types of pottery include a possible East Anglia/Kent mortarium rim, North Gaulish Fabric 2 fine ware and flint and organic-tempered wares which are presumably either Iron Age in date or made in the same tradition.

Samian potters' stamps by B. Dickinson

1. AT · TILLIM on form 33: Attillus v of Lezoux, Die 2a (Nash-Williams 1930, fig. 1, 8, but the stop between the Ts is not shown). Site dating for Attillus v is sparse, but mid to late-Antonine activity is certain, in view of his use of forms which did not evolve fully before *c.*160, such as 31R and 80, and of the absence of those which had

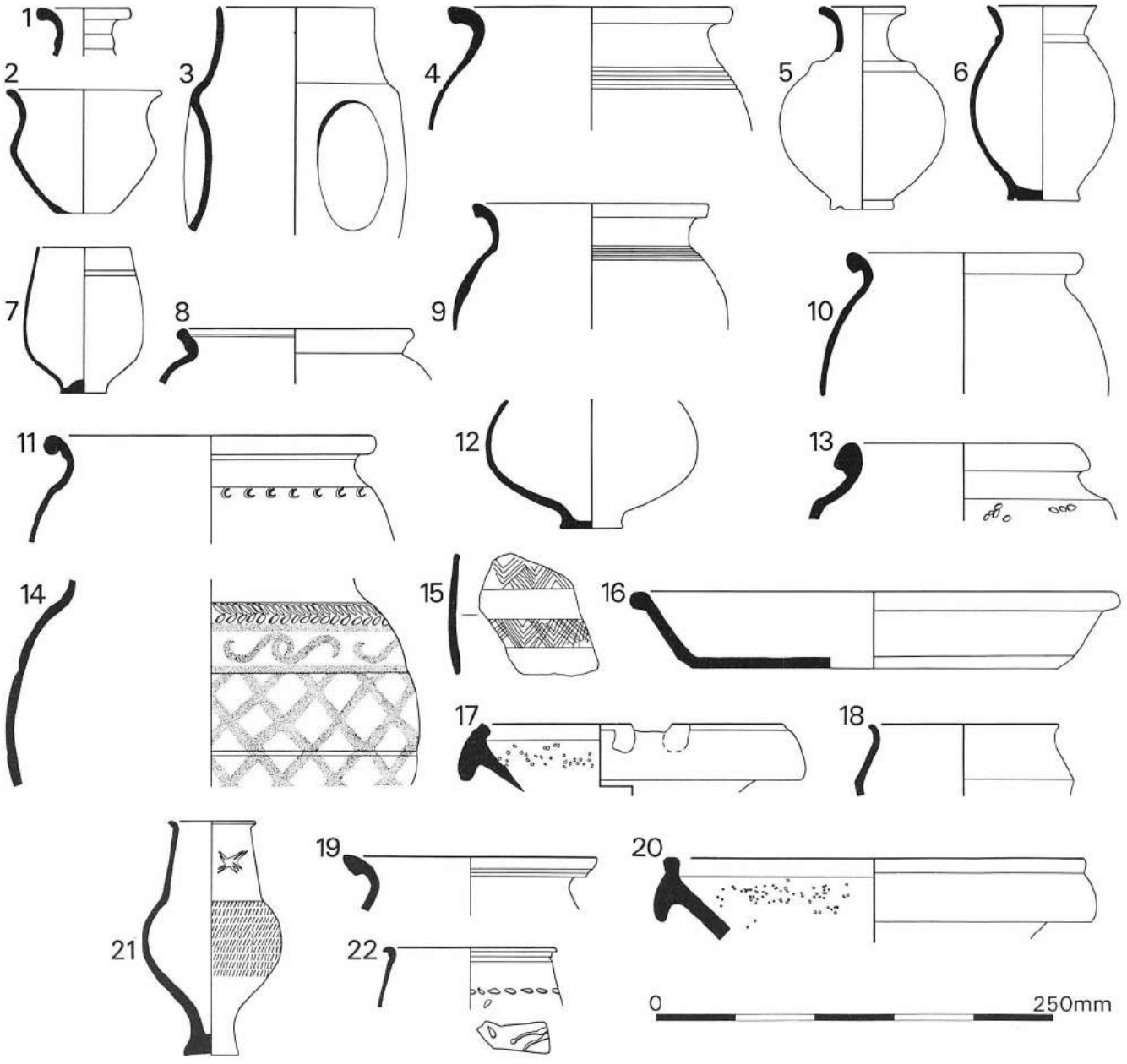


Fig. 15 Langford Road, Heybridge 1994. Roman pottery.

gone out of production by then. *c.*160-190. Cremation 4 (1381).
2. [IVLLI]NI · OF on form 33: Iullinus ii of Lezoux, Die 1a. Iullinus ii's stamps, from other dies occur on Hadrian's Wall, in the Wroxeter Gutter hoard, and in a group of late Antonine samian recovered off Pudding Pan Rock, Kent. His forms too are consistent with late 2nd-century activity. *c.* 160-190. Layer sealing trackway (659).

Catalogue of illustrated sherds (Fig. 15)
Miscellaneous Deposits
1. Flask with cordon on shoulder. Going Fabric 47. 1st - 2nd century activity (302) = fill of [303].
2. Miniature necked bowl. Going Fabric 47. Later 2nd-century layer sealing trackway (659).

Cremation 2 or 3
3. Indented funnel-necked beaker in a hard grey fabric with quartz inclusions. A warped rim suggests this might be a kiln product. Funnel-necked beakers were found amongst the Heybridge 1972 kilns products (Wickenden 1986, fig. 19, 87-8) Going form H33.1 (1160).
4. Everted rim jar with a band of rilling at the shoulder, Jones and Rodwell 1973 Type J. Going Fabric 47. (1160), (1451).

Cremation 4
5. Flask with cordon on the shoulder. Going Fabric 32, ?North Kent product. Monaghan 1987 Type 1B4, where this type is dated to *c.* 70-110. (1381).
6. Poppy-headed beaker. Going Fabric 32. Monaghan 1987 Type 2A5.4-7, dated to *c.*150/60-190. (1381).

Cremation 5
7. Plain-rimmed beaker with groove. Going Fabric 1. *cf.* Symonds and Wade forthcoming Fabric CZ Type 20, fig. 88, 101. (1419).

Cremation 6
8. Lid seated jar, Going Form G5. Going Fabric 47. (1321).
9. Everted rim jar. Going Fabric 50/51. At Colchester, cooking pots with rilled shoulders but without the out-turned rims of the later period date from the 3rd century (Symonds and Wade forthcoming, Fabric HD, Types 35-6).
10. Jar, Going Form G24.1.2. Going Fabric 47/S. (1321).
11. Jar with stabbed decoration on shoulder, Going Form G22.1. An exact parallel for a vessel amongst the 1972 Heybridge kilns products (Wickenden 1986, fig. 20, 116). Going Fabric 47. (1321).

? Cremation 7
12. Base of flagon with oval body. Going Fabric 4. (61), (1415).
13. Triangular-rimmed jar with stabbed decoration on shoulder. Going dates this form to 280+, but it resembles vessels of a larger type present at Colchester with a general 3rd to 4th-century date range. Going Fabric 47. (1415).
14. Wide-mouthed jar with stabbed herringbone decoration on the shoulder and a body constricted by two grooves. It has a white slip to which a diagonal lattice of brown paint has been applied. Symonds and Wade forthcoming Fabric MQ, Fabric C. *cf.* fig. 101, 77. (61), (1415).
15. Body sherd with two bands of vertical combed herringbone decoration. Going Fabric 47. (1415).
16. Rounded-rim dish with chamfer. Going 1987 Form B2.1. Going Fabric 41. (61), (1394).
17. ?Local mortarium. Soft, fine micaceous pale orange fabric, with multi-coloured trituration grits. (1415).

Residual In Early Saxon Filling Of Well
18. Handmade carinated jar. Micaceous black fabric with fine organic tempering. (61).
19. Storage jar with groove on rim. Going Fabric 47/S. (61).
20. Colchester mortarium, *Camulodunum* type 504. (61), (156).

?Inhumation Burial
21. Funnel-necked beaker with rouletted decoration. "X" scratched on both neck and base. Late 3rd-century form. Going Fabric 4. (416).

Unphased
22. Hunt cup. Going Fabric 1. (1152/3).

Saxon pottery
by Susan Tyler

Summary
Some 1.386 kg of Early Saxon pottery (120 sherds) was recovered from five contexts (summarised in Table 3). Most of the pottery (1.275 kg) came from the top of well [60]; the rest from three post holes and one pit fill. Four main fabric types are present with organic-tempered fabrics predominating.

Fabric 1: a small quantity of pottery (54 g) found in (234) and (337) exhibits no added tempering. It is made from the local brickearth which incorporates common small inclusions of micaceous quartz-sand. A pedestal base in this fabric was recovered from (337); (Fig. 16, 1).
Fabric 2: a moderate amount of medium hard sandy fabrics (140 g) was present in (61). These sherds have abundant small to medium quartz-sand. It is difficult to assess how much sand occurs naturally

Table 3. Quantification of Saxon Pottery: Fabrics by weight by context; by weight and sherd count.

Context	fabric 1	fabric 2	fabric 3a	fabric 3b	fabric 4	wt. in g.	no. sherds
61	–	140	279	839	17	1275	110
64	–	–	19	–	–	19	3
234	22	–	–	–	–	22	1
337	32	–	18	10	–	60	5
1323	–	–	–	10	–	10	1
total wt.	54	140	316	859	17	–	–
total wt. of pot	–	–	–	–	–	1386	–
sherd count	–	–	–	–	–	–	120

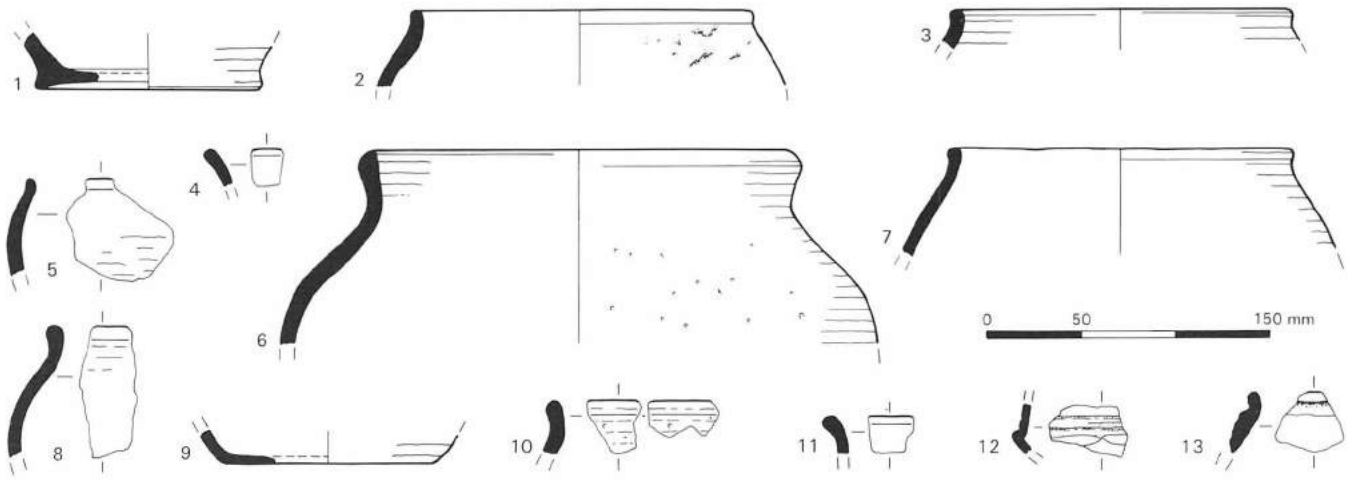


Fig. 16 Langford Road, Heybridge 1994. Saxon pottery.

in the clay and how much has been deliberately added as a tempering agent. A number of body sherds in this fabric occurred in (61), but did not include any diagnostic forms.

Fabric 3a: a medium hard fabric with sparse finely-chopped organic temper and common small quartz-sand. This fabric has few voids in the surfaces. A total of 316g of this fabric was recovered from (61), (64) and (337). Forms in this fabric include globular jars with everted, rounded rims (Fig. 16, 2); everted, angular, beaded rims (Fig. 16, 3) and flaring, flattened rims (Fig. 16, 4).

Fabric 3b: the most common fabric with 859 g occurring in (61), (337) and (1323). Also organic-tempered but with abundant temper, giving abundant voids in the surfaces and making the fabric soft and friable. Also present is sparse small quartz-sand and sparse large quartz-sand inclusions. Diagnostic forms in this fabric include: globular bowls (Fig. 16, 5); shouldered jars (Fig. 16, 6); and globular jars exhibiting a variety of rim forms (Fig. 16, 7-11).

Fabric 4: a small amount (17 g) of pottery from (61), has a vesicular appearance; it is tempered with small chalk particles which have been leached-out on the surfaces. It is fairly soft. Diagnostic forms comprise a facetted carinated bowl (Fig. 16, 12) and a rim with corrugated neck (Fig. 16, 13).

Discussion of fabrics

All four fabrics identified in this assemblage from Langford Road were identified in excavations nearby at Heybridge in 1972 (Drury and Wickenden 1982, 12-15). The bulk of the pottery, including all the globular vessels, are in organic-tempered fabrics (fabric 3a and 3b) which indicate a 6th, rather than 5th-century date for these, as excavations at the Saxon settlement at Mucking, Essex have demonstrated the predominance of this tempering agent during the later period of Early Saxon settlement (Hamerow 1993, 28-31). The facetted carinated bowl in a vesicular fabric (Fabric 4) (Fig. 16, 12) probably belongs to the late 5th century; however, evidence both from Mucking (*ibid.* 42) and from the Saxon cemetery at Springfield Lyons (Tyler 1987, 42) suggests that this form of bowl continued in use in England well into the 6th century. The pedestal-based jar (Fig. 16, 1) in Fabric 1 may also be earlier than most of the assemblage and could also be late 5th century.

Catalogue of diagnostic sherds (Fig. 16)

1. Jar base. Pedestal. Fabric 1. Dark brown ware. Outer burnished. base diameter 120mm. (337).
2. Globular jar. Everted, rounded rim. Fabric 3a. Dark grey throughout. Outer smoothed. Carbonised residue under rim. Diameter of rim 170mm. (61).
3. Rim. ?Globular jar. Everted, angular beading. Fabric 3a. Dark grey throughout. Surfaces highly burnished. Diameter of rim 180mm. (61).
4. Rim. Flaring Top flattened. Fabric 3a. Outer surface reddish-brown. Inner and core grey. Surfaces smoothed. (61).
5. Globular bowl. Upright, rounded rim. Fabric 3b. Outer surface dark brown. Inner and core dark grey. Slight traces of burnish on outer. (61).
6. Shouldered jar. Flaring, slightly angular rim; hollow neck. Fabric 3b. Outer surface reddish-brown with blackening around rim. Inner and core dark grey. Outer part-burnished. Inner burnished around rim and smooth elsewhere. Diameter of rim 235mm. (61).
7. Globular jar. Slightly beaded, rather uneven rim. Fabric 3b. Dark grey throughout. Outer part-burnished with patches of sooting. Diameter of rim 182mm. (61).
8. Globular jar. Fabric 3b. Slightly everted, rounded rim. Part-burnished on surfaces around rim. Dark grey throughout. (61).
9. Base. Flat. ?Globular bowl or jar. Fabric 3b. Dark grey throughout. Burnish on outer; inner smoothed. Abraded. Base diameter 112mm. (61).
10. Jar rim, probably of globular form. Everted, slightly beaded. Fabric 3b. Dark grey throughout. Surfaces burnished. (61).
11. Rim, from ?globular jar. Flaring, slightly flattened top. Fabric 3b. Outer surface reddish-grey. Inner and core dark grey. Outer surface smoothed. (61).
12. Body sherd from a facetted carinated bowl. Fabric 4. Dark grey throughout. Two incised concentric grooves above carination with flattened oval facets. Traces of burnish on outer. (61).
13. Rim. Corrugated neck. Everted, rounded rim. Abraded. Fabric 4. outer dark grey. Inner and core dark reddish-brown. (61).

Discussion of forms

The predominant form within the assemblage is the globular jar and bowl (Fig. 16, 2-11), these are not closely datable and are found throughout the 5th, 6th and 7th centuries. The shouldered jar (Fig. 16, 6) offers little help with dating as these too are found throughout the Early Saxon period. The pedestal base is of 5th to early 6th-century date as demonstrated at Mucking (Hamerow 1993, 41), as is the facetted carinated bowl (Fig. 16, 12).

Conclusions

The pottery belongs to the late 5th to mid 6th century and its pres-

ence in the fills of post holes and in a well is indicative of Early Saxon settlement of this date in the vicinity of Langford Road.

The small finds
by Linda Viner

Copper alloy (Fig. 17)

1. A well-preserved crossbow brooch of typical form. Although now in two parts, the crossbow brooch was made from gilded sheet metal, with various components soldered together. The crossbow conforms to Keller's (1971, 41-52) Type 5 and exhibits typical characteristics: squat appearance, hexagonal-sectioned cross-piece, onion-shaped knobs, wide bow and foot of equal width with decoration on the bow and foot. The hinged pin is formed from wire wrapped around a cross-bar running through the hexagonal-sectioned wings and joined at each end to the separately made onion-shaped knobs. A third onion-shaped knob sits on the head of the bow, probably fastened in turn by a pin through the bow. The base of each knob and the point marking the junction between bow and foot are encircled by a single strand of wire. The crossbow is further enhanced by ornamental projections either side of the bow. The bow itself is trapezoidal in section and narrows slightly before joining the foot. The pin slot lies to the right of the foot. Evidence of gilding survives on most surfaces, with the exception of the rear of the foot. The foot is decorated with simple V-shaped cuts into the sides, with three incised radiating grooves across the base. The central panel, continued over the bow, is decorated with an incised S-shaped scroll

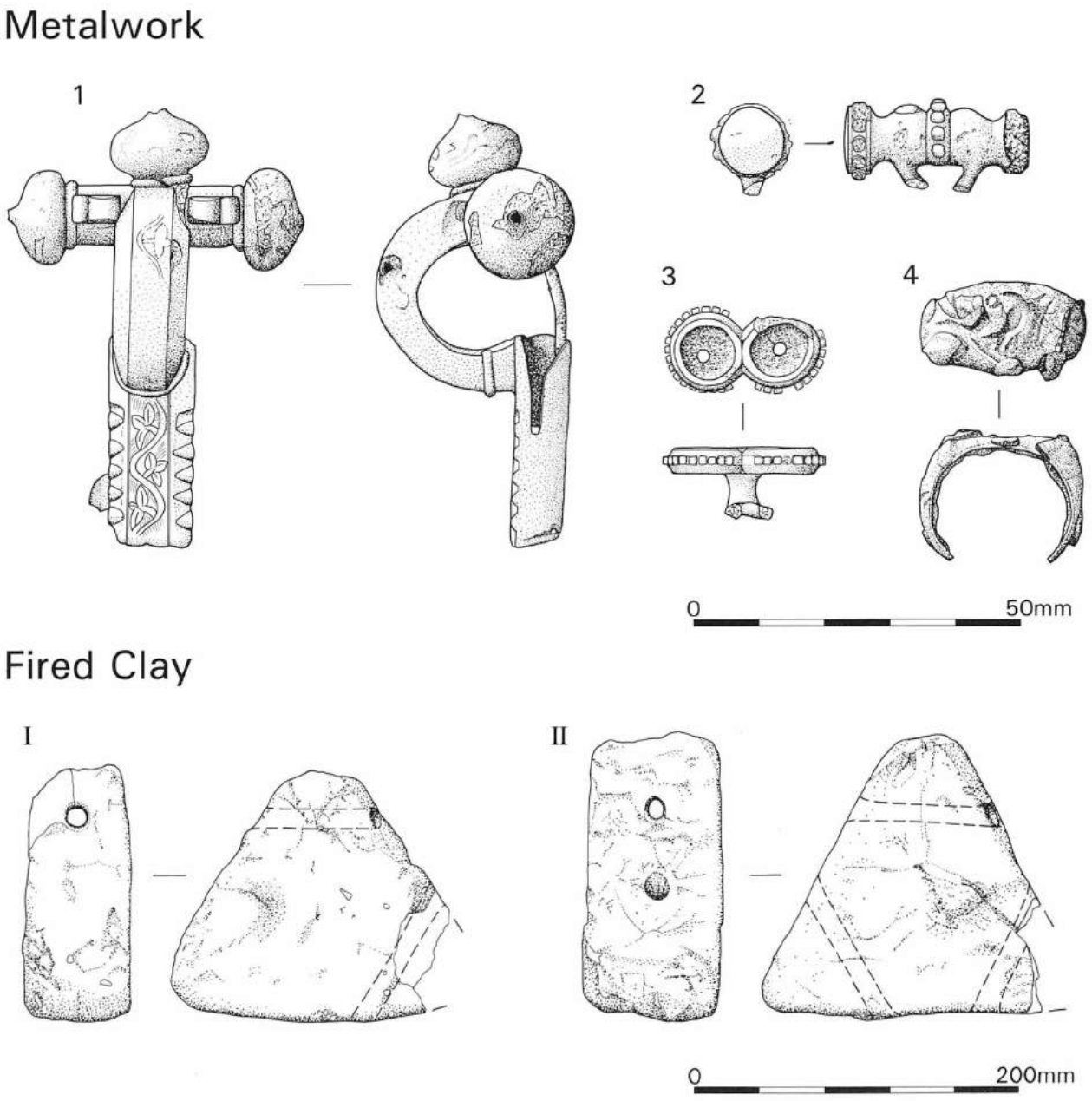


Fig. 17 Langford Road, Heybridge 1994. Metalwork and fired clay.

infilled with three-leaved foliage motifs, the overall effect of which is enhanced by gilding.
Keller (*ibid.* 53) has assigned a date range for his Type 5 from *c.* 370-400. Examples of similar form from British sites, notably from Grave 234 at Lankhills, Hants. would suggest a range from *c.* 350-400 (Clarke 1979, 261, fig. 32, 278, Grave 234). Such large and elaborate brooches have often been regarded as official insignia, but their wide distribution and local variations would now discount this suggestion (*ibid.* 262). L. 68mm, W. 45mm. ?Inhumation grave cut [432], fill = (433).

2. Toggle/mount for strap-end, cast, probably of leaded bronze, surviving in good condition, with only a short length of the rear fixing arm missing. In profile the toggle resembles a double hour-glass with small protruding studs as additional decoration on three elements. L. 27mm, dia. 12mm. Unstratified.
3. A fastener, incomplete, with two circular cupped elements comprising the top plate attached to a two-armed V-shaped loop (incomplete). Additional decoration consists of a crenellated edge to each circle. The off-centre holes within each cup would suggest each originally contained a fixing for a setting of some description.
No close parallels are known, but the form would suggest similarity with button-and-loop fasteners described by Wild (1970), in particular his Class I, a Romano-British fastener with a prototype in the British Iron Age B (Wild 1970, 137-8, Class I; Gillam 1958, 79-80, Type A). Overall L 25mm, dia 14mm. (768/9), pit [767].
Not illustrated. Disc with remains of textile present on the surface. The conservation record describes two different types of corrosion on either side of the object. On side 1 the surface was uneven with areas of corrosion sitting above the main body of the object which has a crazed appearance. Side 2 was covered with a dark brown product, with remains of fibres present on the surface. The object was partially cleaned revealing no detail, thus eliminating its possible ascription as a coin. Dia 29mm, 4mm thick. ?Inhumation grave cut [432] fill = (433).

Iron (Fig. 17)

4. Finger ring of Henig (1974, fig. 1) Type V, with a broad bezel of sub-rectangular outline narrowing to a thin band with a D-shaped section. The ring is poorly preserved, confirmed by the conservation record which notes that the object is completely mineralised with a number of blisters disrupting the original surface. Length 25mm, width of bezel 15mm. Manning (1985, pl. 33, J7) lists 9 iron finger rings, of which J7 from Great Chesterford, Essex, provides the closest parallel in form. With a similar sub-rectangular outline, the poorly-preserved oval bezel is outlined with a band of copper alloy with a bar of the same material across the centre, and dates to the second century or later. The oval outline of the bezel on the Langford Road example is fairly obvious within the corrosion and there are possible vestiges of an engraved design within the bezel. Iron rings set with engraved gemstones are comparatively common on British sites (Henig 1974, nos. 289, 467; Manning 1985, J1-6, J8-9). In contrast rings with engraved metal bezels are relatively rare, probably due to the more perishable nature of the material. An example from the Walbrook, London, is engraved with an eagle and standards, with the head of Jupiter (?Serapis) above, and dates from imperial times (Henig 1974, pl. lxi, a). Iron rings of Types II, III and V were popular up to and including the Antonine period, supplanted by copper-alloy examples from the third century, a change which also reflects the increasing number of people who were allowed to wear gold rings at that time, with copper alloy offering a cheaper alternative (Manning 1985, 78). Cremation 6. Nails associated with the burials. (Not illustrated). Cremation 1. Four individual hobnails with domed heads and short shanks, overall length 20mm. Encrustations adhering to hobnails include small fragments of bone and corrosion products. (78).
Cremation 2. Three nails contained in cremation vessel. (i): 13cm deep at edge. Incomplete, length 60mm, head missing. Heavy encrustation, with shank of 6mm square section, tapering to point, with slight bend at the tip. (ii): 17cm deep at centre of pot. Incomplete, length 40mm, tip and head missing. Straight shank, 8mm square section, tapering to 4mm section. (iii): incomplete, head missing, shank of 5mm square section, tapering to point and bent at right angles. Length (if extended) 53mm. (1528).
Cremation 3. Iron objects (nails, fragments and hobnails) contained in cremation vessel. Five nail shanks, lengths 50 (x2), 25, 20 and 15mm; heavily encrusted with corrosion products, with 5mm square shanks. Nail, length 25mm, rectangular shank of 3 x 2mm, tapering to point, with flat circular head of 12mm. [Possible contamination – unlike all other nails from the site this particular example has a very coppery appearance]. Three hobnails (single and two conjoined). Domed heads of 8mm diameter, overall length of 10mm, with short shanks. In excess of 100 fragments of thin iron sheet. No function discernible. (1260).
Cremation 4. Five nails, with circular flat heads of 12mm diameter. Lengths 70, 55, 50, 30 and 32mm, square-sectioned shanks of 8mm. (1381).
?Cremation 7. Two nails. (i): heavy encrustation, head missing. Length 82mm, 9mm square section tapering to broken tip. (ii), length 70mm, 12mm tapering shank of square section tapering to point. Head missing. (1415).
Possible inhumation burial. Nail, complete length 90mm (2 fragments). Flat oval head (20 x 15mm), rectangular shank of 12 x 8mm tapering to point. Three nails, with flat circular heads, heavily corroded. Lengths 50, 35 and 30mm, with rectangular-sectioned shanks of 8 x 6mm. Three nails, with small suboval heads, straight shanks of 70, 65 and 60mm lengths, with 8mm square sections. Hobnails, 42 examples, with domed heads, average lengths of 12mm overall, with 12mm diameter heads. (1343).

Fired clay
by Brona Langton

Two loomweights reused as packing in pit [723] and a further 483 unidentified fragments of fired clay were retrieved from Langford Road. The loomweights are typical of the Middle Iron Age and were associated with Middle Iron Age pottery.

Catalogue (Fig. 17)
I. Triangular loomweight with two suspension holes. Approximately equilateral, length of side *c.* 170mm; thickness 68mm. One corner broken at suspension point. Light brown clay tempered with sand and a small amount of fine flint gravel. (724)
II. Triangular loomweight with three suspension holes. Approximately equilateral, length of side *c.*180mm; thickness 80mm. One corner broken at suspension point. Orange clay with occasional flint gravel. (724)

Ceramic building material
by Brona Langton

In total 145 fragments of tile (13.6kg) were recovered. The vast majority were Roman, including examples of *tegula*, *pila*, box-flue and *imbrex*. One complete flat tile (dimensions 0.41 x 0.29 x 0.025 m) was recovered, possibly part of a cremation cist. The tile assemblage is not associated with any structure within the excavation area. Most of this material was residual, coming from the surface of the ditches. Owing to the small size of the assemblage, and the probability that many occur in residual contexts, no analysis of fabric types is considered worthwhile.

Environment and economy
by Julie Jones, David Smith and Keith Wilkinson

Introduction
In order to examine the environment and economy contemporary

with the various phases of activity at Langford Road, a series of bulk samples were taken for flotation processing to recover plant macrofossil, insect and other biological remains. Unfortunately bone preservation was extremely poor (because of the decalcified nature of the deposits) and therefore no study of the meat component of diet was possible. An opportunity to study a further aspect of the past environment was presented when a palaeochannel was found running through the southern part of the site. A transect trench across it revealed a 1m thick sequence of largely alluvial deposits which were the subject of sedimentological study.

Nineteen bulk samples (Dobney *et al.* 1992) were taken from a variety of features, including pits, ditches and the well. Sediment found associated with 'special' finds added a further four samples. All the samples were processed using standard flotation techniques with residues and flots being retained on 0.5mm and 0.25mm sieves respectively. The residues were air dried and sorted by eye and with a low-power binocular microscope and all identifiable biological remains were extracted. Flots were sorted wet under a microscope to remove identifiable plant remains. Insect remains from a single sample (number 18) of a well fill (1571) were extracted from the flots by paraffin flotation (Kenward *et al.* 1980) and sorted under a microscope.

The plant remains were identified by Julie Jones using a modern seed reference collection at the Dept. Geography, University of Bristol. In the following paragraphs and Table 4, plant nomenclature and habitat information follow Stace (1991). The table is organised by habitat group with species found in more than one group marked thus (*).

The Coleoptera (beetle) remains recovered from context 1571 were identified by comparison with those in the Gorham Collection of

Table 4. Plant remains identified from fills of the well, and (bottom right) from Roman ditches (* are species of more than one ecological group)

Waterlogged remains	Context	242	1571
Weeds of cultivated land			
Anthemis cotula L.	Stinking Chamomile		71
Anthriscus caucalis M. Bieb.	Bur Parsley		16
Atriplex spp.	Orache	1	181
Brassica / Sinapsis sp.*	Mustard/Rape/Cole etc		1
Capsella bursa-pastoris (L.) Medikus	Shepherd's Purse		15
*Cerastium sp.**	Mouse-ear		12
Chenopodium album L.	Fat hen		233
Chenopodium polyspermum L.	Many-seeded Goosefoot		41
Chenopodium sp.	Goosefoot	1	1
Cirsium/Carduus sp.*	Thistle		1
Fallopia convolvulus (L.) A. Love	Black Bindweed		13
Lamium purpureum L.	Red-Dead nettle	5	265
Papaver rhoeas / dubium / hybridum / lecoquii	Poppy		60
Plantago major L.*	Great Plantain		3
Polygonum aviculare L.	Knotgrass		129
Reseda luteola L.*	Weld		3
Rumex acetosella L.*	Sheep's Sorrel		10
Rumex spp.	Dock		49
Sonchus asper (L.) Hill	Prickly Sow-thistle		4
Stellaria media (L.) Villars	Common Chickweed	2	741
Urtica urens L.	Small nettle		48
Weeds of waste places			
Hyoscyamus niger L.	Henbane		1
Malva sylvestris L.*	Common Mallow		43
Sambucus nigra L.*	Elder		3
Urtica dioica L.	Stinging nettle	93	*c.*5500
Wood/Scrub/Hedgerow			
Corylus avellana L.*	Hazel		3f
Hypericum sp. *	St. John's Wort		1
Prunus avium (L.) L.*	Wild Cherry		1
Rubus fruticosus L. agg.*	Blackberry		10
Sambucus nigra L.*	Elder		
Solanum dulcamara L.*	Bittersweet		1
Grassland			
Achillea millefolium L.	Yarrow	68	
Cerastium spp.*	Mouse-ear		
Cisium/Cardus sp.*	Thistle		
Graminae indet.	Grasses	1	109
Hypericum sp.*	St. John's Wort		
Leontodon sp.	Hawkbit		4
Leucanthemum vulgare Lam.	Ox-eye Daisy		3

	Context	242	1571
Grassland (cont.)			
Linum catharticum L.	Fairy Flax		1
Nepeta cataria L.	Cat-mint		4
Plantago major L.*	Great Plantain		
Prunella vulgaris L.	Selfheal		7
Reseda luteola L.*	Weld		
Rumex acetosella L. *	Sheep's Sorrel		
Stellaria graminea L.	Lesser Stitchwort		13
Wet meadow/marsh			
Carex spp.	Sedges		15
Conium maculatum L.	Hemlock		15
Isolepis setacea (L.) R. Br.	Bristle Club-rush		1
Juncus spp.	Rushes		c.2000
Montia fontana ssp. minor	Blinks		33
Ranunculus acris/repens/bulbosus	Buttercup		7
Ranunculus flammula L.	Lesser Spearwort		4
Rumex conglomeratus Murray	Clustered Dock		1
Schoenoplectus lacustris (L.) Palla	Common Club-rush		4
Solanum dulcamara L.*	Bittersweet		
Valeriana dioica L.	Marsh Valerian		30
Edible/food plants			
Brassica/Sinapis sp.*	Mustard/Rape/Cole etc		
Corylus avellana L.*	Hazel		
Prunus avium (L.) L.*	Wild cherry		
Rubus fruticosus L. agg.	Blackberry		
Various			
Myosotis sp.	Forget-me-not		6
Umbelliferae indet.			1
Leaf Abscission pads			4
Buds			21
Bud scales			19

Carbonised plant remains	Context	74	679
Triticum sp. (grain)	Wheat	2	3
Triticum spelta (glume base)		12	
Hordeum sp. (grain)	Barley	1	
Avena sp. (awn)	Oats	1	
Cereal indet. (grain)		3	
Anthemis cotula L.	Stinking Chamomile	2	
Gramineae indet.	Grasses	1	
Rumex spp.	Dock	40	3

British Beetles at The University of Birmingham by David Smith. Chironomidae (non-biting midge) head capsules were identified by Jon Sadler, School of Geography, The University of Birmingham. The results are presented in Table 5 where taxonomy and nomenclature follows that of Lucht (1987).

Roman ditches and pits (JJ)
Two samples were examined from the fill of Roman ditch [69] (74), and a pit (679). The flot from the ditch fill consisted primarily of small charcoal fragments, less than 2mm in diameter. There were, however, also a few examples of wheat and barley grains with spelt wheat glume bases and a single oat awn. The charred seeds of dock, stinking chamomile and a single grass caryopsis probably represent weeds of cultivated land. The pit fill also contained three wheat grains and some dock seeds. The material from the ditch and pit fills may represent crop-processing waste which had been dumped into these features.

The well

Plant macrofossil remains (JJ)
Two samples were examined from fills of the well; one from (1571), the 2nd-3rd century primary deposit of the well recut and the other from (242) which was a secondary fill of the initial well cut and therefore older (but still Roman) (Fig. 12, Section 52). This latter deposit was of a grey colour and partially waterlogged, but the inclusion of large quantities of gravel and sand-sized material may point to deposition as a result of deliberate infilling rather than gradual accumulation. The sample from (242) contained only achenes of stinging nettle (*Urtica dioica*) and a number of other weeds of disturbed and cultivated land.
(1571) – which on morphological grounds would appear to have accumulated through material having fallen down the shaft by "natural" means – was entirely waterlogged and contained an abundance of well preserved biological remains. Over 9000 seeds and fruits were identified and there were also many unidentified wood and twig fragments with moss, buds and scales as well as a variety of insects.

The range of plant taxa from the well suggests a mosaic of plant communities present in the immediate vicinity. Weeds of crops are most abundant, represented by annuals such as red dead-nettle, fat hen, chickweed, poppies, shepherd's purse and knotgrass. Many of these arable weeds do not have any specific ecological requirements apart from their adaption to disturbed ground and suggest the presence of areas repeatedly cleared, possibly by cultivation, allowing them to thrive. Common chickweed, present here in large numbers, occurs mostly on well aerated, moist, but never waterlogged soils and can tolerate most arable soils in Britain today. It is, however, also an important component of the flora of ruderal habitats such as waste places, farmyards and roadsides, where there is continual or periodic soil disturbance (Sobey 1981, 314, 318). Small nettle is also an abundant arable weed, and is especially common on light soils such as the well-drained river terrace gravels of the Blackwater valley. It is also, however, found around farm buildings and waste ground together with stinking chamomile, which, although generally preferring heavier soils, is also "locally common in farmyards" (Kay 1971). The excavation has demonstrated that much of the site area was farmland throughout the Roman period, with intensive exploitation of the light, well drained soils on the terrace gravels. No evidence of cereals themselves was found in the well samples, although charred grains of wheat and barley, some spelt chaff and a number of weed seeds have been noted from pit and ditch fills, perhaps indicating that some crop processing occurred on the site. Reynolds (1981, 112) quotes Diodorus Siculus and Strabo who comment that the Celtic practice was to reap the ears or spikes of cereal crops. Once the spikes were harvested, the straw remained to be gathered as this was also a valuable product which was palatable for livestock, or otherwise used for bedding or thatching. Once cut this would have been put into sheaves and taken back to the settlement, along with the mass of weed flora in its bulk. The arable weeds present here may have originated from such material or represent uncharred crop-processing waste. Many of the segetals (weeds of crops), could equally well have grown on waste ground in the vicinity of the settlement around the well, with many more typical ruderal species – those plants growing in waste places near human habitation. Perennials such as docks and stinging nettles (the latter, in particular occurs in large numbers in the sample), suggests the colonisation of waste ground lasting more than a single season. Stinging nettle is closely associated with man and his animals and occurs on almost all soil types. Together with elder, it is common in nutrient-rich ground around settlements where continual trampling would have provided bare ground for weeds to flourish. Some plants may also have been growing around the well head in crevices. Wilson (1981, 242) suggested that some of the disturbed ground species recovered from a well at the Iron Age and Romano-British farmstead at Whitton, South Glamorgan, such as great plantain, knotgrass and prickly sow-thistle – which also occur at Langford Road – may have lived in such situations.
Plants typical of grassland form the second largest habitat group. The caryopses of members of the grass family were not identified to species level, but some of the other taxa provide some indication of the type of grassland present. Fairy flax is a plant typical of short turf, especially on base rich soils, and selfheal is also often associated with short grassland. Ox-eye daisy, yarrow and hawkbit are plants typical of hay meadows, and may represent the remains of hay gathered for animal feed and bedding.
Plants of wood, scrub and hedgerow form another component of the assemblage. The wood fragments, twigs and some of the other macroscopic remains, such as the buds, may have been brought in amongst firewood or undressed timber. The fruits, seeds and nuts of hazel, wild cherry, blackberry and elder may represent areas of scrub or hedgerow nearby, which could have been used as a source of wood, gathered for kindling for ovens or hearths. All these plants could also have been used as food plants. Blackberry and elderberry seeds are frequently recovered from Roman sites, for example Caersws in Powys and Newstead in Borders region (Davies 1971). Other plants listed as weeds, such as dock, fat hen, plantain and chickweed may also have been used as food plants.
The palaeochannel running across the southern part of the site would seem to have been active during the period that the well fills were accumulating (see below), and would have had boggy ground on its periphery. Such areas would have been ideal habitats for lesser spearwort, blinks, creeping buttercup and hemlock to have flourished in some of the more impermeable soils. These may have been used as seasonal pasture, although this may have been flooded for part of the year. Blinks requires marshy conditions in spring, preferably on light acid soils (Walters 1953, 3). The sedges, rushes and bristle club-rush would have grown on the banks of a small stream or in an area of marsh.
The plant remains recovered from (1571) were preserved by waterlogging. They may have reached the well in a number of ways – they may have blown in, or fallen in, perhaps as they overgrew the well top, or deliberately dumped there by man. A combination of these factors is also possible. Some of the seeds which could be wind transported might have been derived from a fairly large distance, while other plants are more likely to relate to local conditions. For example, many of the weeds which thrive in nitrogen-rich disturbed ground that tends to occur around settlements, such as stinging nettles, elder and docks may have arrived by 'natural' means. It is also clear that wet boggy ground was located nearby thus allowing the establishment of the marsh / wet meadow community. The bulk of the weed seeds recovered, however, seem to have originated from cultivated / disturbed ground and it seems likely, if this had not been transported to the site by man, that arable land was a close and major aspect of the landscape around the well.
It is likely in view of the mixed nature of the habitat groups shown that the plant macrofossil assemblage represents accumulation by a combination of processes (but see insect evidence below). While some of the seeds may have entered the well through natural dispersal it seems unlikely that such large numbers and from such a range of habitat groups, would have entered by this means. Although some plants may have grown at the mouth of the well, especially after its

abandonment, many are likely to have arrived in re-deposited sediment or as part of cut vegetation such as hay, straw or rushes.

Insect remains (DS)

It was decided to analyze the insect content of (1571) as a result of the findings of the plant macrofossil study of the same deposit (above), which seemed to suggest that material was entering the well from a number of different sources. Therefore the questions asked of the insect data, were concerned firstly with the nature of the environment around the well at the time of deposition of (1571), and secondly how this deposit had accumulated. As a result of the stage at which the analysis was carried out standard flotation flots had to be used rather than dedicated samples for paraffin flotation. Therefore it is likely that particularly dense insect remains or those with a small surface area will not have floated during the initial extraction procedure and will be under-represented in the assemblage detailed below. However, despite this probable bias, it is clear from the nature of the remains that useful and consistent information regarding the questions outlined above can be drawn and indeed a relatively large insect fauna was produced. The majority of the remains recovered were those of the Coleoptera (beetles), which are discussed below. Other orders of insects recovered include a range of ants (Hymenoptera: Formicoidea), true bugs (Hermiptera); including both shield bugs (Heteroptera) and froghoppers (Homoptera) and both the heads and pupae cases of a number of true flies (Diptera).

Table 5. Insect remains from the well

Carabidae		**Nitidulidae**	
Notiophilus ?biguttatus (F.)	1	*Brachypterus* spp.	3
Loricera pilicornis (F.)	1	*Meligethes* spp.	1
Clivina fossor (L.)	1		
Trechus quadristriatus (Schrk.)	2	**Cryptophagidae**	
Bembidion guttula (F.)	3	*Cryptophagus distinguendus* sturm	1
Bembidion spp,	3	*Atomaria* spp.	3
Harpalus ?rupicola Sturm	1		
Pterostichus ?diligens (Sturm)	1	**Lathridiidae**	
Pterostichus madidus (F.)	1	*Enicmus* spp.	3
Calathus fuscipes (Goeze)	2	*Corticaria* spp.	5
Calathus melanocephalus (L.)	2		
Syntomus foveatus (Fourcr.)	1	**Mycetaphagidae**	
		? Litargus spp.	1
Dytiscidae		*Typhaea stercorea* (L.)	1
Hydroporus spp.	1		
Rhantus spp.		**Coccinellidae**	
		?Thea vigintiduopunctata (L.)	1
Hydraenidae			
Hydraena testacea Curt.	2	**Anobidae**	
Hydraena spp.	1	*Anobium punctatum* (Geer)	1
Ochthebius minimus (F.)	1		
Ochthebius spp.	6	**Ptinidae**	
Helophorus rufipes (Bosc.) or *H. porculus* Bedel	1	*Ptinus* ?fur (L.)	1
Helophorus spp.	4	**Phythidae**	
		Rhinosimus planirostris (F.)	1
Hydrophilidae			
Cercyon impressus (Sturm.)	1	**Anthicidae**	
Cercyon analis (Patk.)	2	*Anthicus antherinus* (L.)	1
Cercyon spp.	7	*Anthicus* spp.	1
Megasternum boletophagum (Marsh.)	5		
Hydrobius fuscipes (L.)	1	**Scarabaeidae**	
Laccobius sp.	1	*Geotrupes* spp.	1
		Onthophagus similis (Scriba.)	1
Histeridae		*Oxyomus silvestris* (Scop.)	1
Acritus nigricornis (Hoffm.)	1	*A.phodius contaminatus* (Hbst.)	3
Saprinus semistriatus (Scriba)	1		
Kissister minimus (Aubé)	2	**Chrysomelidae**	
Paralister neglectus (Germ.)	1	*Crepidodera* spp.	1
		Chaetocnema sp.	1
Scydmaenidae			
Scydmaenidae Gen. & spp. indet.	1	**Scolytidae**	
		Scolytus multistriatus (Marsh.)	1
Orthoperidae			
Corylophus cassidoides (Marsh.)	1	**Curculionidae**	
		Apion malvae (F.)	1
Ptillidae		*Apion aeneum* (F.)	4
Ptillidae Gen & spp. indet.		*Apion radiolus* (Marsh.)	2
		Apion urticarium (Hbst.)	8
Staphylinidae		*Apion carduorum* (Kirby)	1
Metopsia gallica (Koch.)	1	*Apion* spp.	2
Omalium spp.	1	*Sitona hispidulus* (F.)	1

Lathrimeum unicolor (Marsh.)	1
Lesteva longelytrata (Goeze)	3
Trogophloeus bilineatus (Steph.)	1
Trogophloeus spp.	5
Oxytelus sculptus Grav.	1
Oxytelus rugosus Grav.	3
Oxytelus sculpturatus (F.)	1
Oxytelus nitidulus Grav.	13
Oxytelus complanatus Er.	1
Platystethus cornutus (Grav.)	2
Platystethus ?nitens (Sahlb.)	1
Stenus spp.	1
Astenus sp.	1
Lathrobium spp.	4
Xantholinus spp.	2
Neobisnius spp.	2
Quedius spp.	2
Gabrius spp.	1
Tachinus spp.	1
Tachyporus spp.	2
Aleocharinae Gen. & spp. indet.	6
Elateridae	
Adelocera murina (L.)	1
Athous sp.	1
Leiosoma deflexum (Panz.)	1
Hypera spp.	1
Rhinoncus pericarpius (L.)	1
Ceutorhynchus erysimi (F.)	1
Ceutorhynchus pollinarius (Forst.)	1
Ceutorhynchus spp.	2
Cidnorhinus quadrimaculatus (L.)	6
Gymnetron spp.	4
DIPTERA	
Chironomidae	
Chironomus spp.	20+
Diptera Fam. Gen. and spp. indet.	14+
HYMENOPTERA	
Formicoidea Fam. Gen. and spp. indet.	4
DERMAPTERA	
Fam. Gen. and spp. indet.	5
HERMIPTERA	
Heteroptera Gen. and spp. indet.	3
Homoptera Gen. and spp. indet.	3

The environment surrounding the well

Many of the beetles present are indicative of sandy areas with weed growth. The small ground beetle *Synotomus foveatus* only occurs in sand-rich soils with a sparse cover of grasses, heather and other such plants (Lindroth 1974). Similarly restricted in their habitats are the Histerid *Kister minimus* and *Helophorus rufipes/porcatus*, which also feed at the base of sparse vegetation in sandy areas (Halstead 1963; Hansen 1986). Other species of ground beetles present are less restricted in their behaviour but are also commonly found in such circumstances (Lindroth 1974).

Certain species of plant-feeding beetle found suggest something of the form of vegetation within the local area, the majority of these being plants typical of disturbed ground. Several species present in profusion are indicative of stinging nettle (*Urtica dioica*). Amongst these are the species of *Brachypterus, Apion urticarium* and the true weevils *Ceutorhynchus pollinarius* and *Cidnorhinus quadrimaculatus* (Bullock 1992). Further plant species from a similar environment are indicated by the presence of other insects. For example there would appear to have been various mallows (Malvaceae) present to judge from the numbers of *Apion malvae, Apion aeneum*, and *Apion radiolus* which feed on this shrub (Morris 1990). Sorrels or docks also appear to have been present as they are the food plants of *Kister minumus* and *Rhinocus pericarpius* (Halstead 1963; Bullock 1992). Lastly, there is also some indication for the presence of thistles (*Cirsium*) and Shepherd's purse (*Capsella bursa-pastoris*) the food plants respectively of *Apion carduorum* and *Ceutorhincus erysimi*. All these plants were found – often in some quantity – during the macrofossil analysis of the same sample.

As with the plant macrofossil evidence above there are few indicators of woodland in the insect fauna. An exception is the Scolytid "bark beetle" *Scolytus multistriatus* which is mainly associated with oak (Koch 1992). Also present is a single individual of *Rhinosimus planirostris* which is a predator on the Scoyltids and the other bark beetles, and is therefore also considered an indicator of trees. However, the low numbers of these species probably suggests that the local landscape was largely devoid of woodland.

Only a few species found directly attest to grazing. These are the various species of Scarabaedidae dung beetle, which feeds on large herbivore dung lying in open fields (Jessop 1986). This group of species are also all active fliers and thus have a tendency to become incorporated in water-filled deposits such as this in relatively large numbers and by accident. Therefore the relative importance of this landscape type can easily be over emphasised (Kenward 1975; Kenward *et al.* 1986). However, in the present case their occurrence in small numbers may indicate that this pasture lay at some distance from the well and was certainly not adjacent. This can be seen when the Langford Road taxa are compared with the large and dominant numbers of Scarabaeidae present in the samples from the Wilsford Shaft which is believed to have been sunk into pasture (Osborne 1969).

The nature of sediment accumulation in the well

The insect remains clearly suggest that the landscape surrounding the well contributed the majority of the insects comprising the fauna. Dumped material derived from settlement would be expected to contain a fauna very different to that seen here. Such a fauna would contain species which are closely associated with human activity, and are regarded as synanthropic (dependant on the presence of humans) or culture favouring (e.g. Kenward 1978; Hall *et al.* 1983; Hall and Kenward 1990). Indeed this was the pattern with the Roman wells at the Bedern, York, and at Skeldergate, York, where a mix of both dumped and erosional well fills contained many beetles which were syanthropes or associated with spoilt grain which must have entered the well in dumped material during Roman back filling (Hall *et al.* 1980; Kenward *et al.* 1986). Few of these species are represented in the fauna from Langford Road, the only possible exceptions being a single individual of one of the Ptinidae (spider beetles) and *Anobium punctatum* (common woodworm). Although both of these species are commonly associated with human settlement, they are not true synanthropes and commonly live away from sites of human activity. Similarly if "hay" or stabling material had been dumped into the well it should also have resulted in a distinctive beetle fauna. Cut vegetation imported on to a site for use as fodder or bedding appears to contain considerable numbers of beetles which feed on plants typical of meadow and grassland (Hall and Kenward 1990; Kenward and Allison 1994; Smith 1994). Although some of the beetles present at Langford Road are associated with plants found in disturbed areas of grazing, these are also plant species which would not be out of place in the open ground around the well head.

Also deficient are the wide range of beetle taxa which are typically associated in the archaeological record with decaying stable matter and other plant remains (i.e. Hall and Kenward 1990; Smith 1994). Although there are elements of this type of fauna present, such as the *Cercyon*, Histeridae, *Typhaea stercorea* and *Anthicus* species, they are found in lower numbers than would be expected if this type of material had entered the well. Therefore although the possibility that stable material may have been dumped into standing water at the base

of the well before such a beetle population developed, can not be ruled out – the fauna found would appear to make this unlikely. Similarly, archaeological stabling matter often, but not always, contains various parasites of either man or domestic animals, such as the fleas (Siphonaptera) or the biting lice (Mallaphaga) (Hall and Kenward 1990; Kenward and Allison 1994), but these are also absent from the fauna.

Finally there is some evidence to indicate that this deposit was formed in standing stagnant water. The larvae of the *Chironomus* species of non-biting midge are the familiar blood worms which are common in standing water and in wells.

To summarise, if dumping of waste derived from human settlement is absent from the well, or otherwise limited in quantity, what is the origin of the insect fauna? It is extremely unlikely that any component of it lived within the well itself – with perhaps the exception of the Chironimidae "midges" – and it is therefore suggested the majority entered as part of the "background rain" of insect species which become incorporated by chance (Kenward 1975; 1978) over a considerable period of time. However, there is a possible alternative, for as previously discussed many of the taxa appear to derive from an essentially similar environment – i.e. that of disturbed, weed-rich, sandy ground which is likely to have formed the local contemporary environment. Therefore some of both the insects and the plant species recovered may have been present in the contemporary soil as sub-fossils (dead individuals) and subsequently entered the well either as deliberate back fill or through erosional processes at the top of the well. This explanation has been advanced in part to explain elements of the fauna from the Bedern well (Kenward *et al.* 1986).

Conclusions

Both classes of evidence broadly agree in terms of their interpretation of the 2nd-3rd century environment, and it seems likely that the well stood in, or adjacent to an area of predominantly arable land. This is characterised by a diverse weed flora, but there is no evidence for which crops were being grown. The soils of the period would seem to be of a similar nature to those of today in being sandy and well drained, while the insect data would seem to suggest that these were

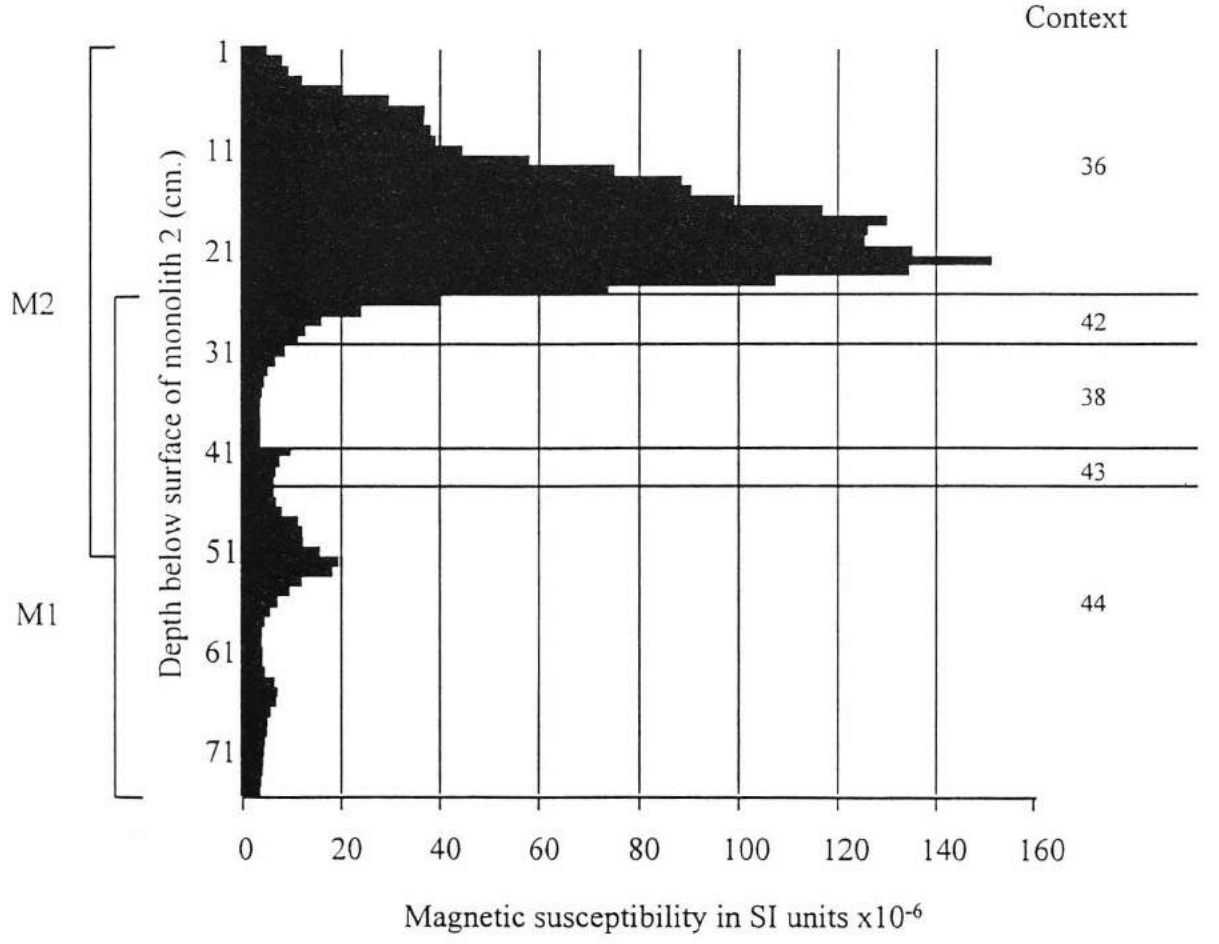


Fig. 18 Langford Road, Heybridge 1994. Magnetic susceptibility profile of the palaeochannel.

the main source of sediments infilling the well. Further away from the well there is some evidence for the presence of grazing / grassland, which is rather better represented in the plant macrofossil data than in that of the insects. There is little evidence for woodland or even scrub, and it has been suggested that the few plant remains found deriving from such environments had been deliberately brought to the site. However, there is little further evidence for direct human influence on sediment accumulation in either the botanical (i.e. few remains of food plants) or insect evidence. This negative evidence suggests that the well was located at some distance from settlement.

The palaeochannel and palaeoenvironmental implications of its fills (KW and JJ)

The morphology of alluvial sediments in the palaeochannel, suggested that two major phases of sedimentation had occurred, the first in a relatively narrow (1-2m wide) channel, and the second through over bank flooding of a larger feature. Two bulk samples and two monolith samples were taken from sediments filling the earlier feature to recover plant macrofossil (for C^{14} dating and palaeovegetational reconstruction), and sedimentological study respectively. However, unfortunately analysis of the plant remains from these deposits (59 and 43) demonstrated that contamination by later roots had occurred and therefore no samples for C^{14} dating were submitted. Therefore the only chronological evidence concerning the channel was a single sherd of Romano-British pottery from the base of the phase 2 accumulation (36). However, it is also obvious that all the pre-19th century ditches on the site respect the channel and therefore indicate that it was active from at least the Roman period onwards. On the Elms Farm site to the south-east, a further stretch of the same channel was found bordered by Saxon sunken-featured buildings, and containing Roman wooden structures buried in silt grade alluvium (M. Atkinson *pers. comm.*). However, whether these latter were in deposits representative of the first or second phase of alluvial accumulation found at Langford Road is at present unknown.

Phase 1: Channel accumulation

The two monoliths taken from sediments of this phase were initially described and then the plastic inserts inside the tins extracted so that they could be passed through the loop detector (MS 2B) of a Bartington MS 2 magnetic susceptibility meter. The results of magnetic susceptibility measurement are plotted in Fig. 18.

The lowest fill appeared to be an organic silt clay (44) and therefore solely on the basis of its morphology is most likely to have accumulated as a result of low energy fluvial action, for example in a slow moving stream or even still water. The dark colour of the sediments (5 Y 3/1 very dark grey) is probably the result of the complete break down of plant material growing in the channel. Magnetic susceptibility measurements are low throughout, although there is a slight peak at the very top of the layer. This corresponds to an area of iron staining suggesting that at this point there was a period of drying, although there is no evidence of terrestrial sedimentation or pedogenesis. The bulk sample from this layer contained only a few seeds of stinging nettle (*Urtica dioica*) and blackberry (*Rubus fruticosus*), while that from the sample above (43) contained stinging nettle only. This latter layer is of a similar particle size to context 44, is also iron stained, but has lower magnetic susceptibility values. These may again suggest deposition in low energy fluvial conditions, but perhaps in a slightly larger water body where there was less plant growth. Neither stinging nettle or blackberry are aquatic plants and are therefore likely to have either blown or otherwise eroded into the watercourse, which in turn suggests that the latter was a small scale feature at this time, while the fact that fine charcoal was also noted in these samples suggests nearby human activity during deposition. To the west of the transect trench the channel was found to contain darker deposits (178) and (180), but even here the only plant remains found were seeds of rush (*Juncus sp.*), typical of marshes and meadows.

The same pattern of deposition continues throughout the remaining fills of the phase 1 channel deposition (43), (39) and (42), which as stated above is likely to have been in a small stream.

Phase 2: Channel accumulation

This phase of accumulation represents a marked change to the depositional environment. At the base of the first layer in this phase (36) there is a very large magnetic peak (in the region of 150 SI units $x10^{-5}$), which probably indicates a burning event – possibly as a means of clearing vegetation. However, there is no morphological evidence from the sediments (in the form of charcoal) to support this assertion. If such an occurrence did indeed take place (and there are few other possible explanations for the high magnetic susceptibility values) it was almost certainly the result of human activity. The morphology of the sediments throughout the phase 2 accumulation (well sorted, thickly bedded 10 YR 4/4 dark yellowish brown silts) suggests deposition as a result of over bank flooding from a relatively large water body rather than within a channel. It is therefore possible that the burning event took place on dry land prior to the onset of over bank flooding, or that ash from the event blew, or washed into the flood sediments from a nearby location. Dating of this event to the Roman period is provided by a single Romano-British sherd found at the base of (36).

Conclusions

The evidence reviewed above suggests that there were marked differences in the mode of formation during the two accumulation phases. Phase 1 deposits seem to have accumulated in low energy conditions within a small channel, and with occasional stand-still/terrestrial interludes. Phase 2, which can be dated to the Roman period and later, begins with an initial burning event, after which accumulation is as over bank flooding from a larger water course.

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The project was managed by Neil Holbrook and directed in the field by Brona Langton assisted by Cliff Bateman. Conservation of selected artefacts was undertaken at the Conservation Centre of Salisbury and South Wiltshire Museum Service.

The project archive and finds have been deposited at Colchester Museum under the accession no. 35.1994.

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Middle Iron Age and Romano-British settlement at Great Dunmow: excavations at Buildings Farm 1993

by N.J. Lavender

with contributions by N. Brown, H. Major, P. McMichael, A. Wade and C. R. Wallace

Excavations following fieldwalking survey located and recorded the south-east corner of a Middle Iron Age settlement, with at least 2 circular structures, comparable with the contemporary site at Little Waltham. This was succeeded by a series of Romano-British field systems ranging from the 1st to the 4th centuries AD. Whilst no actual complex of Roman farm buildings was found, evidence for two possible circular structures within the field system was recovered. Roman pottery and metalwork were abundant. A second field system, identified by aerial photography, half a kilometre to the south of the excavations, and thought to be at least partly Roman, is also discussed.

Introduction

The proposed construction of a large housing development at Buildings Farm north of the A120 to the west of Great Dunmow (Fig. 1) threatened the destruction of an area of potential archaeology close to both a major Roman road and settlement site believed to be a small town. Therefore, in October 1992 a fieldwalking exercise was conducted by Essex County Council Planning Department Field Archaeology Group. This resulted in the discovery of concentrations of Roman pottery and tile at the southern edge of the development area, just north of the Newton Works (Figs 2 and 3: Atkinson and Lavender 1992).

Further archaeological intervention was instigated and in March 1993 an area measuring *c.* 130 x 70m covering the finds scatter was stripped of topsoil *c.* 140m north of the A120 at TL 6174 2206, and a two-week watching brief took place. It was quickly realised that the extent and intensity of Iron Age and Roman activity within the stripped area were too great to be recorded without fuller excavation. Following negotiation, further work, funded by Wickford Development Plc, continued throughout March and April 1993 directed by the author, for Essex County Council Planning Department Field Archaeology Group. As a result, part of an area of Middle Iron Age settlement and a succession of field systems spanning much of the period of Roman occupation was recorded (Figs 4 and 5).

The site and its environs

Whilst evidence for Roman activity in and around the town of Great Dunmow has been accumulating since *c.* 1760, the opportunities for systematic excavation have been few. Within the area of the modern town several burials, a shrine, a kiln and traces of buildings have been located, and villas are suggested at Church End and Merks Hill Farm (Wickenden 1988).

Great Dunmow lies on the junction of Stane Street and the Roman road from Chelmsford to Great Chesterford. For this reason it has been suggested in the past that it was a Roman small town. The line of Stane Street through the modern town has never been identified, but has been conjectured.

The Buildings Farm excavations lay to the west of the modern town, *c.* 1.3 kilometres north-west of the supposed site of the Roman cross-roads. A slight slope leads down to the A120 via the site of the old Newton Works, where the ground has been so thoroughly disturbed and landscaped that no archaeological features were visible in watching briefs. Roman agricultural activity in the area is known from cropmarks at Folly Farm to the south (Fig. 4) and to the east, at the possible villa site near Merks Hill Farm. Beyond this, because of the clay subsoil, cropmarks are very scarce, and no other possible Roman farms have been identified.

Thus the state of archaeological knowledge prior to the 1992 fieldwalking survey consisted of various excavations and chance finds within Great Dunmow reported and summarised by Wickenden and supplemented by Going (1988). Fieldwalking along the line of the proposed new A120 (Medlycott 1990), observed only post-medieval manuring scatters to the south, but it was during research as part of that project that the Folly Farm cropmarks were identified.

The fieldwalking survey at Buildings Farm found a heavy concentration of Roman pottery (Fig. 2) north of the old Newton Works, accompanied by a lesser concentration of Roman tile (Fig. 3). A single sherd of unabraded Middle Iron Age pottery suggested a prehistoric presence in the same location.

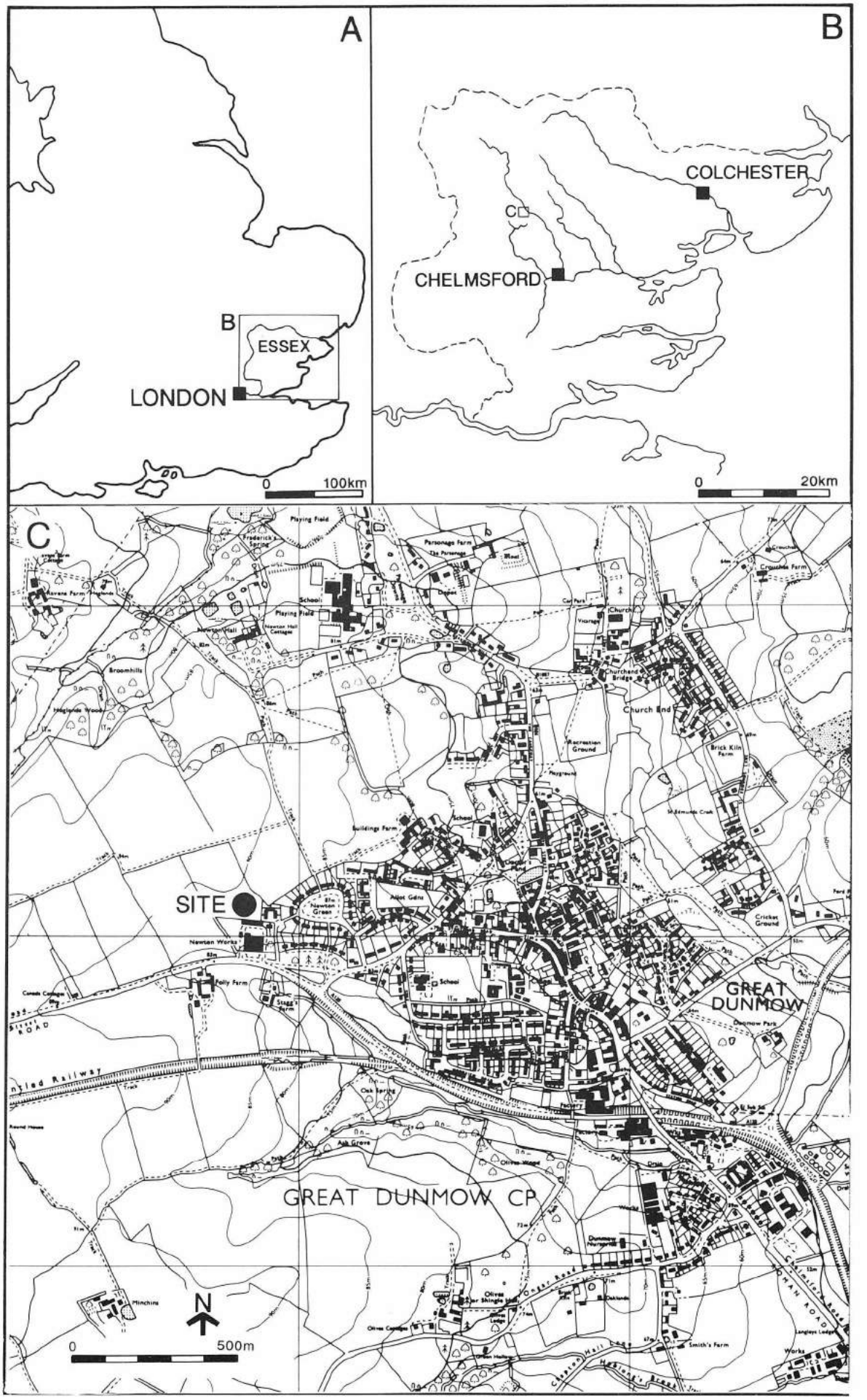


Fig. 1 Buildings Farm, Great Dunmow 1993. Site location. © Crown copyright 87584M.

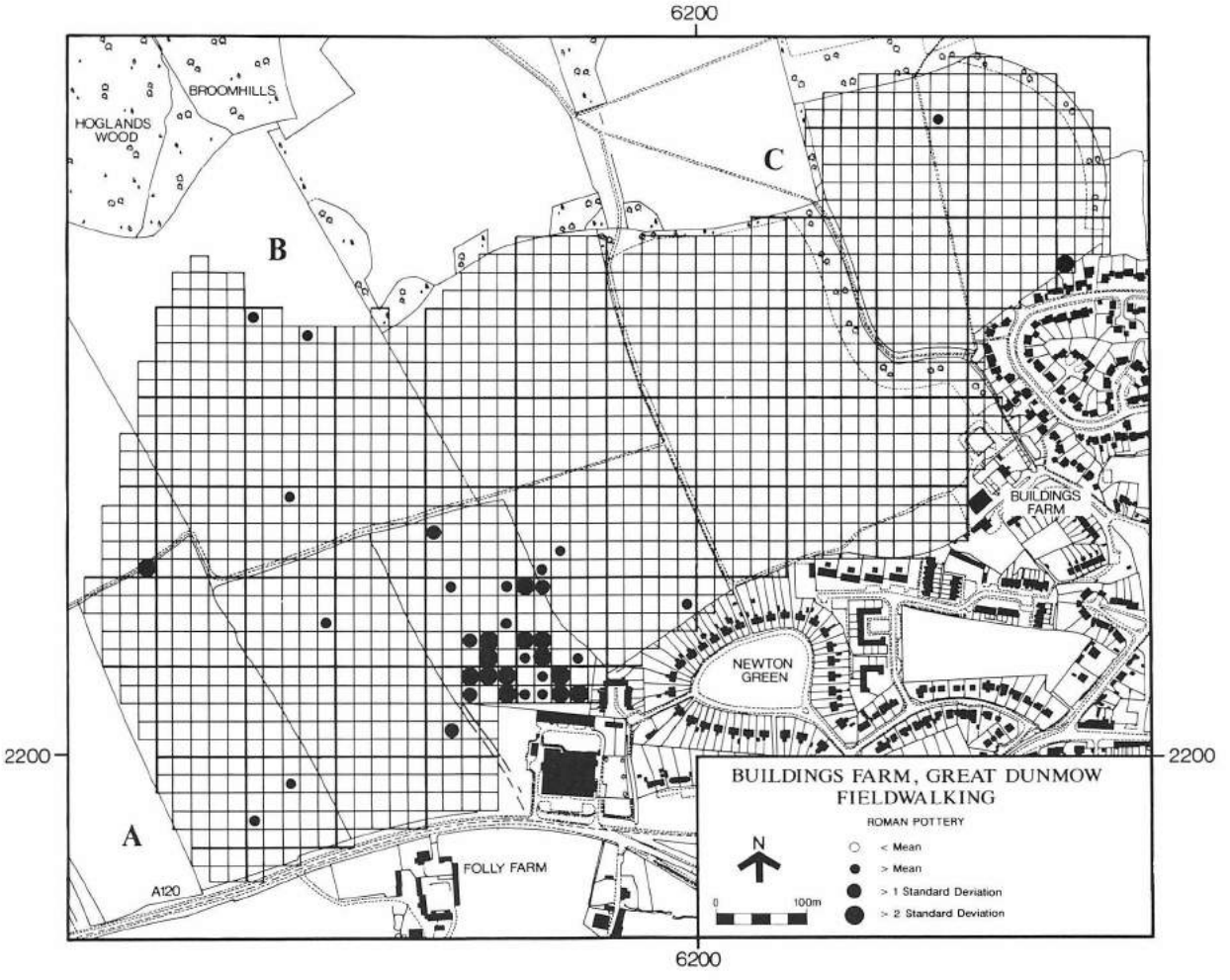


Fig. 2 Buildings Farm, Great Dunmow 1993. Fieldwalking plot of Roman pottery. © Crown copyright 87584M.

The excavations

It is possible to separate activity on the site into five broad phases, although there are certain necessary sub-divisions within some of these, and a few features which it has proved impossible to place into any phase on artefactual, stratigraphic or spatial grounds. The phases are discussed in the order below:

Phase I	Middle Iron Age. *c.* 300-100 BC. This can be divided into two minor sub-phases relating to its buildings.
Phase II	Late Iron Age/early Roman: 1st century AD
Phase III	Late Iron Age/early Roman: 1st century AD
Phase IV	Mid-late Roman: 2nd-3rd century AD. One minor sub-phase can be discerned.
Phase V	Late/Latest Roman: 4th century AD and later

Phasing of the site has been accomplished with due reference to artefactual and stratigraphic dating evidence, although in some instances it has been necessary to assign features to phases on largely spatial grounds. This is generally secure, since the features concerned are elements of field systems, and their allocation to the appropriate phase is suggested by the overall pattern of ditches.

Constraints of time meant that the sampling of features was minimal (Fig. 5), and a policy of attempting to obtain a section of each ditch and to clarify the phasing of the features was decided upon. A more thorough investigation of the structures in the north-west corner of the site was also deemed necessary. In the event, this policy was greatly aided by the clarity of the relationships between the ditches, most of which could be seen clearly in plan. This meant that most excavation could be carried out by straightforward sampling of uncomplicated ditch segments, with the virtual elimination of the possibility of cross-contamination of finds. It should also be noted that many features were not excavated to their full depth, because in addition to the normal safety limit of 1.2m, further depth restrictions were imposed by the developer. It was stipulated that only ten features or segments could be excavated

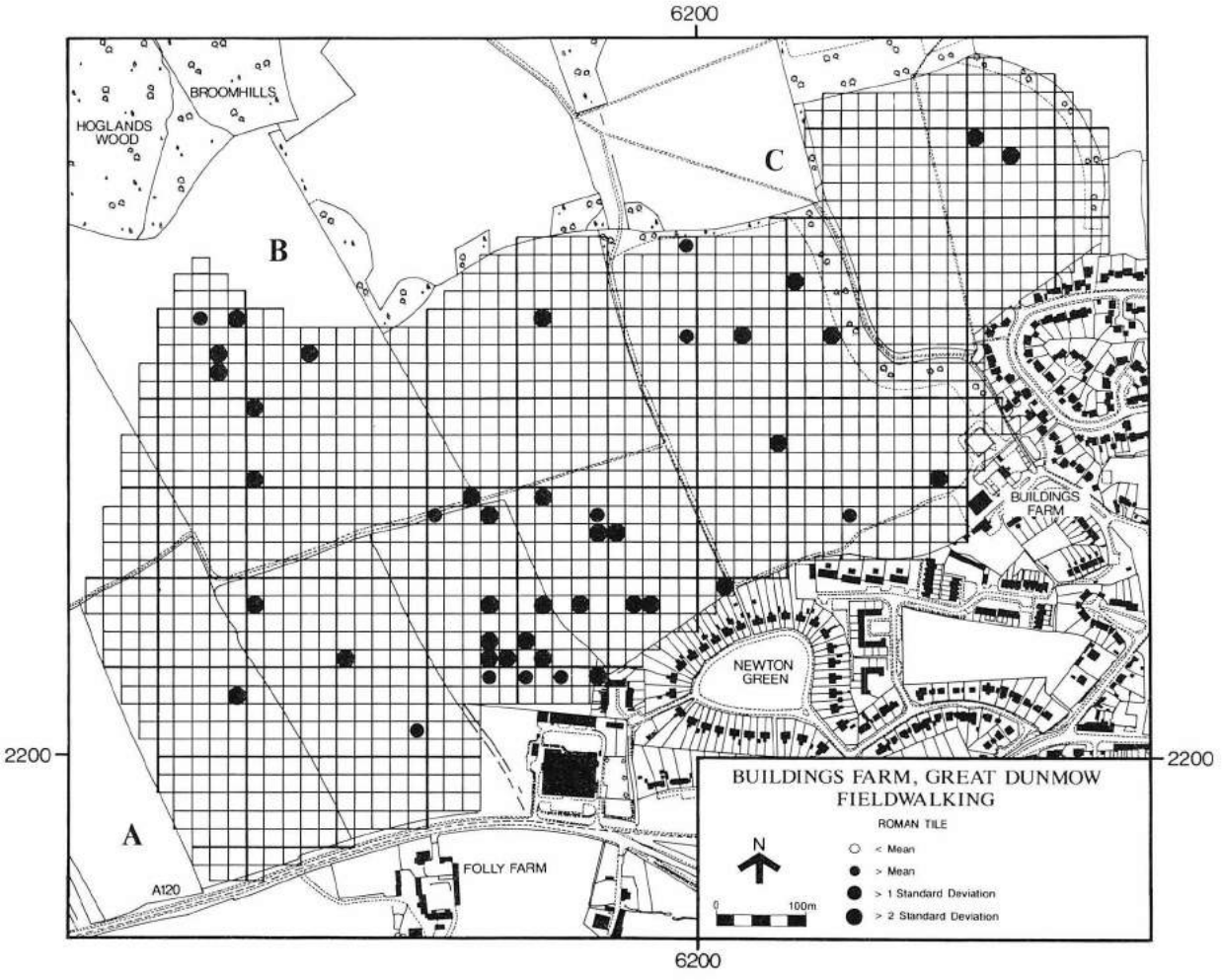


Fig. 3 Buildings Farm, Great Dunmow 1993. Fieldwalking plot of Roman tile. © Crown copyright 87584M.

beyond a depth of 0.60m, and it is possible that this has hampered the dating of certain features whose primary fills were not available for investigation.

It should be added that certain parts of the site showed signs of post-Roman disturbance, some caused by tree-roots, others possibly associated with a Second World War plane crash in the corner of the field which also left fragments of aluminium and at least one machine-gun bullet on the site. In these areas it was often impossible to see features during the excavation. Reference is made in the following text to evidence derived from an aerial photograph, taken after topsoil stripping, which shows some of the ditches continuing through these disturbed areas. The plans which accompany the main body of the text consist only of information recovered during excavation. The aerial photograph evidence has, however, been added to the more interpretative illustrations included in the discussion of the evolution of the field systems (see Discussion).

Phase I: Middle Iron Age

A number of features in the north-west corner of the site were dated to the Middle Iron Age (Fig. 6), indicative of the edge of a settlement comparable with that at Little Waltham (Drury 1978).

Structure 1

The earliest feature was a curving ditch (31), 0.80m deep and 1.90m wide, which described almost a semi-circle against the western edge of the excavated area (Fig. 7). The edges were steep, though not vertical, and the base flat, except for a slightly deeper part located in the south end of segment 32, which may indicate that posts were set into this feature. It seems likely that this represents a wall trench for a circular structure, comparable with the Period II buildings at Little Waltham (Drury 1978, 14-18, figs. 9, 16), although there was no evidence of a post-pipe running through the fills of the feature (Fig. 9). It seems likely that the building was deliberately demolished, the posts removed and the trench back-filled in order to make room for Structure 2. The many small fragments of daub scattered throughout the fills of this ditch would be consistent with deliberate back-filling using the remains of the building. Within the upper fills were small amounts of intrusive early Roman

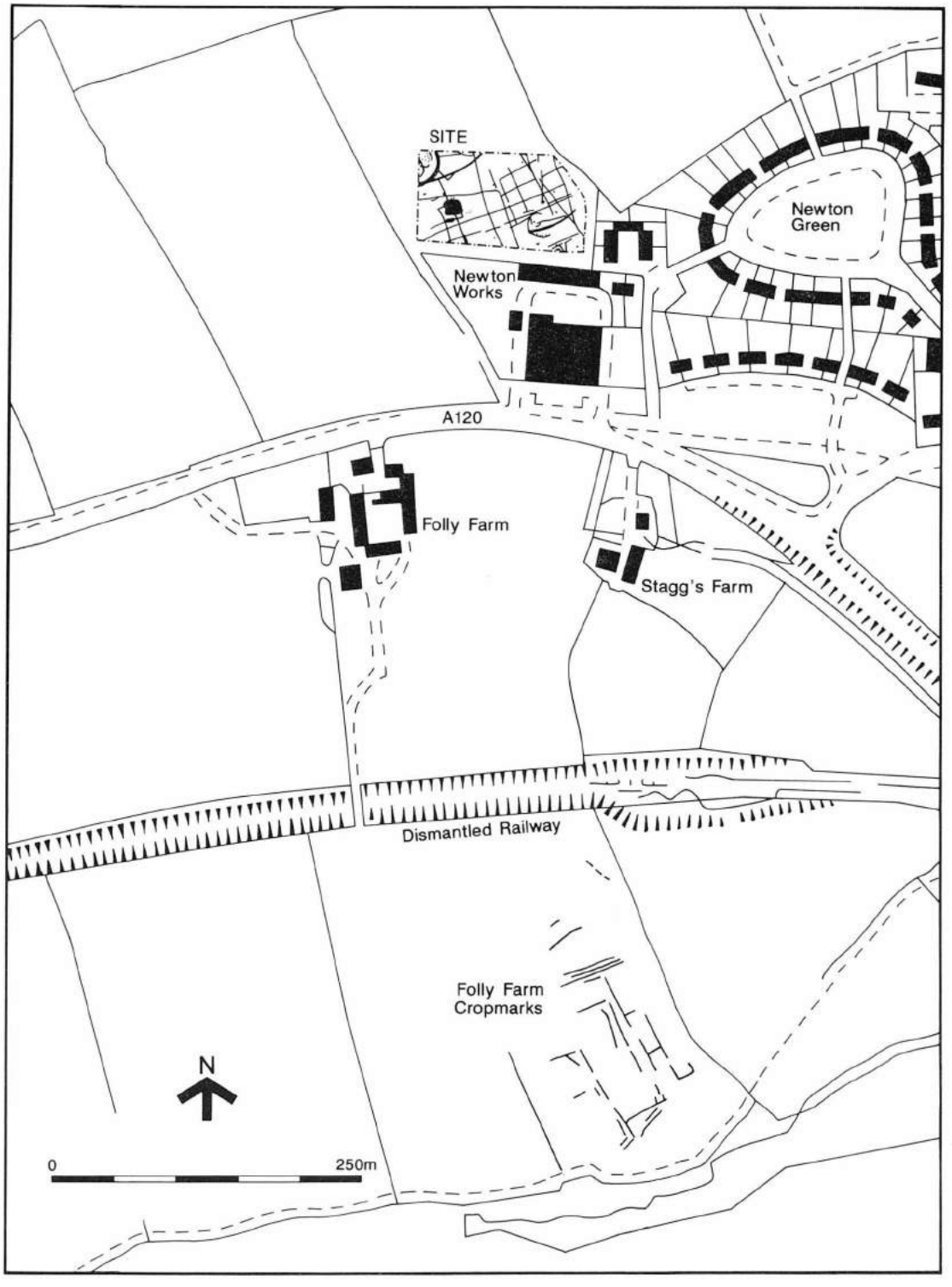


Fig. 4 Buildings Farm, Great Dunmow 1993. Trench location and Folly Farm cropmarks.
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pottery, resulting from the penetration of the feature by recent mole drains.

Structure 2

The second Middle Iron Age building lay to the north of Structure 1, which was cut by its trench. Only part of this structure lay within the excavation, but the trench on both sides of the south-east facing entrance was identified (34 and 56, Fig. 7). The form of the trench appears to be inconsistent; 34 was comparative-

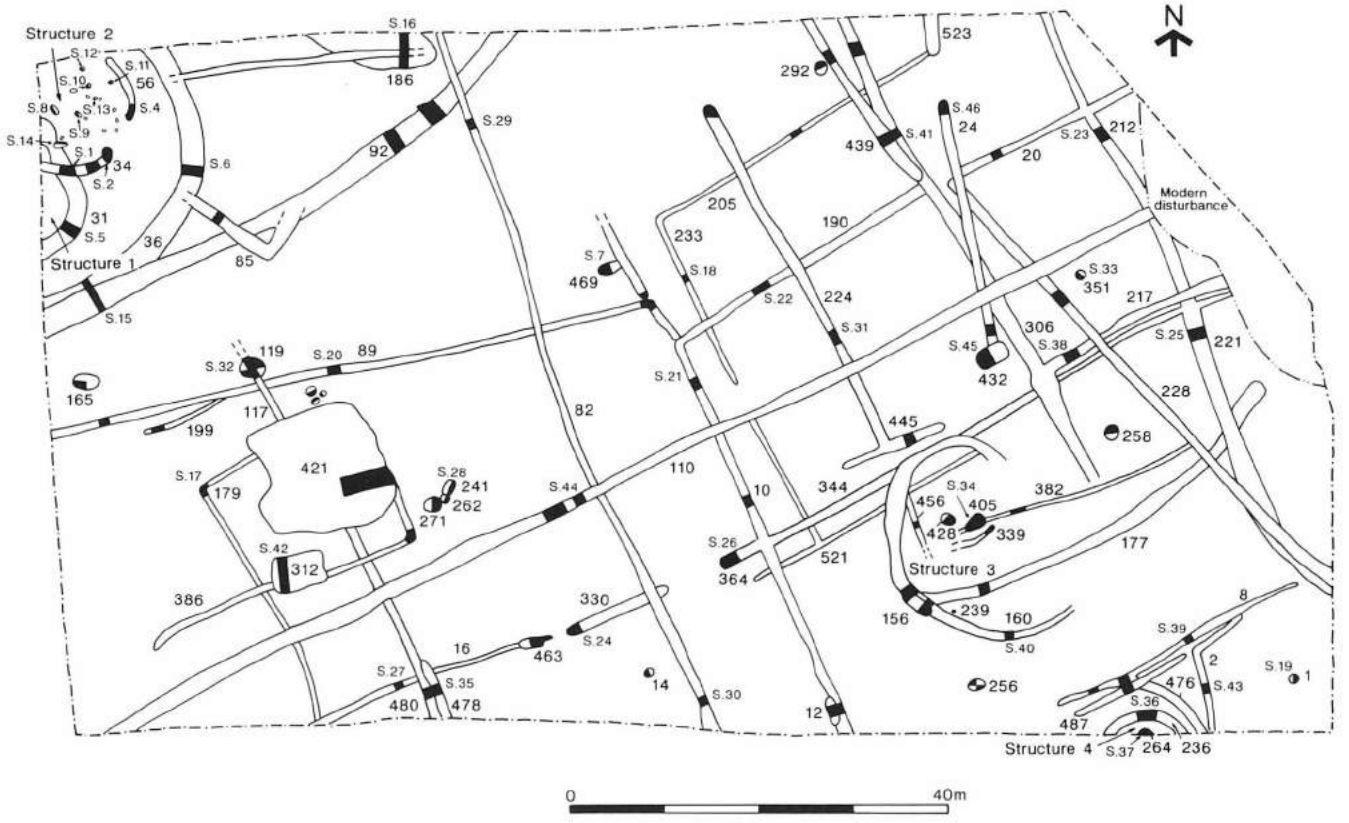


Fig. 5 Buildings Farm, Great Dunmow 1993. Plan showing all features in outline; sampled areas in black.

ly deep (0.56m), narrow (0.72m) and steep-sided, resembling a construction trench, whereas 56 was more shallow (0.26m) and wider (0.90m) with a rounded profile (its base was 20cm higher above Ordnance Datum than that of 34), more like an eaves-drip gully. No evidence for post-settings was recovered from the western segments of 34 (42 and 50), but a large posthole was located at the terminal in segment 60, corresponding with that identified but destroyed in the terminal of 56. Considered with the internal post-holes, it seems likely that these represent part of a porch.

The layout of the internal postholes finds a parallel in one of the Little Waltham Period III structures, C2 (Drury 1978, 32-34, fig. 24), and Drury's reconstruction (Drury 1978, fig. 67) supports the eaves-drip gully interpretation with the outer wall comprising turf with posts too shallow to penetrate the subsoil (Fig. 8 for comparison). Also within the structure was a small hearth or oven (319 in Fig. 7), which cut the upper fills of 31; it was, however, very close to the postulated turf wall and to a possible internal partition post, and may not be contemporary.

The enclosure ditch

Structures 1 and 2 were, so far as could be seen, surrounded by a ditch (36), *c.* 1.2m deep and 1.6m wide (Figs 7 and 9). This had a steep V-shaped profile and closely resembled the Period III enclosure ditch at Little Waltham (Drury 1978, 31-32, figs 22, 16),

Pit 469

One other feature is possibly dated to the Middle Iron Age. An oval pit, measuring 2.62 by 0.95m and 0.46m deep, lay *c.* 45m south-east of the enclosure ditch. It was filled with scorched clay and charcoal-rich soil, but showed no signs of burning *in situ;* the fills probably derive from the debris of a hearth or oven elsewhere. Small quantities of undiagnostic prehistoric pottery were recovered from this feature, and it was cut by a 1st century AD ditch.

Whilst this phase can be securely dated to the Middle Iron Age, the dating of the final disuse of several features suggests that they remained open relatively late. There was Late Iron Age material in the upper fills of both structures, and a small quantity of mid-Roman from the enclosure ditch (Wallace, below).

Phase II: Late Iron Age/Early Roman:

No structures belonging to the 1st-century AD were

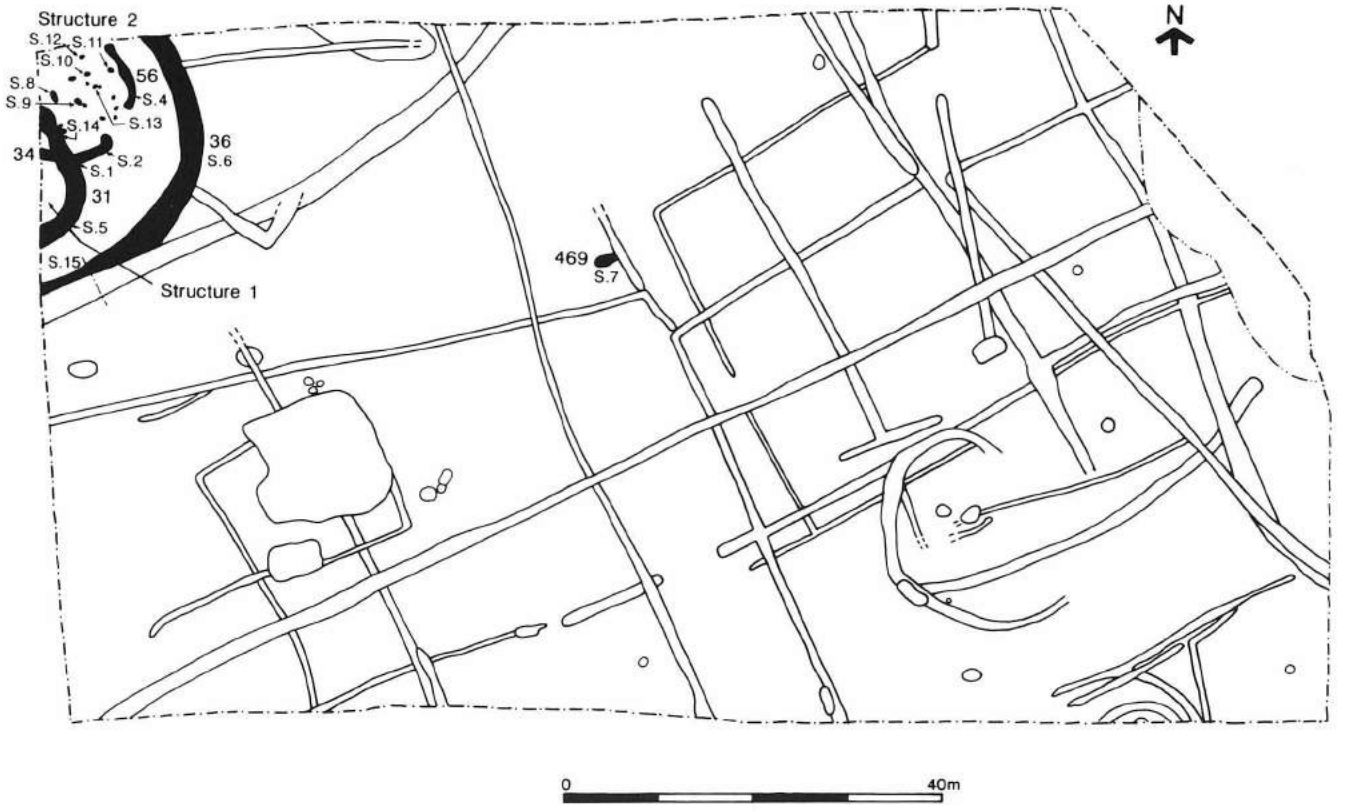


Fig. 6 Buildings Farm, Great Dunmow 1993. Plan showing Middle Iron Age (Phase I) features in black; other features in outline

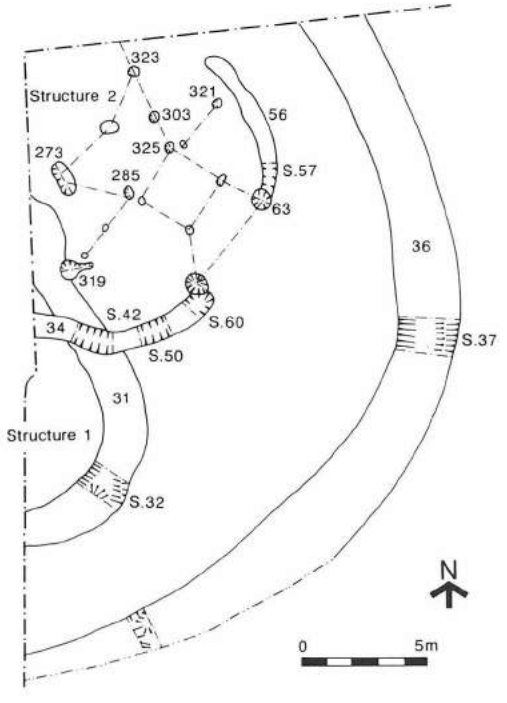


Fig. 7 Buildings Farm, Great Dunmow 1993. Plan of the Middle Iron Age (Phase I) settlement

present; a number of ditches, however, marked out the first of a sequence of field-systems (Fig. 10). In this phase two fields could be discerned in the excavated area (Fields 1 and 2). The ditches that defined them were shallow and narrow, which has resulted in their being truncated so severely that in places they were ploughed-out completely. In addition, the full length of the surviving features could not be seen on the ground, but a greater length was visible in aerial photographs taken during excavation, and this is shown in the plans accompanying the discussion of the evolution of the field systems (Fig. 27). The two fields appear to be based on ditch 521 running from north-east to south west, which was to remain the major axis for the entire history of the site, and can be demonstrated to be the main axis for the agricultural system over a much larger area in the vicinity of Great Dunmow. There is also evidence for further fields to the south of 521, in the form of a short length of ditch running south from 521.

Field 1

Only the western and a fragment of the northern sides of this field were preserved. Ditch 521 was not visible in this part of the site, but its line can be readily extrapolated. Ditch 179 was fairly slight, 0.54m wide and

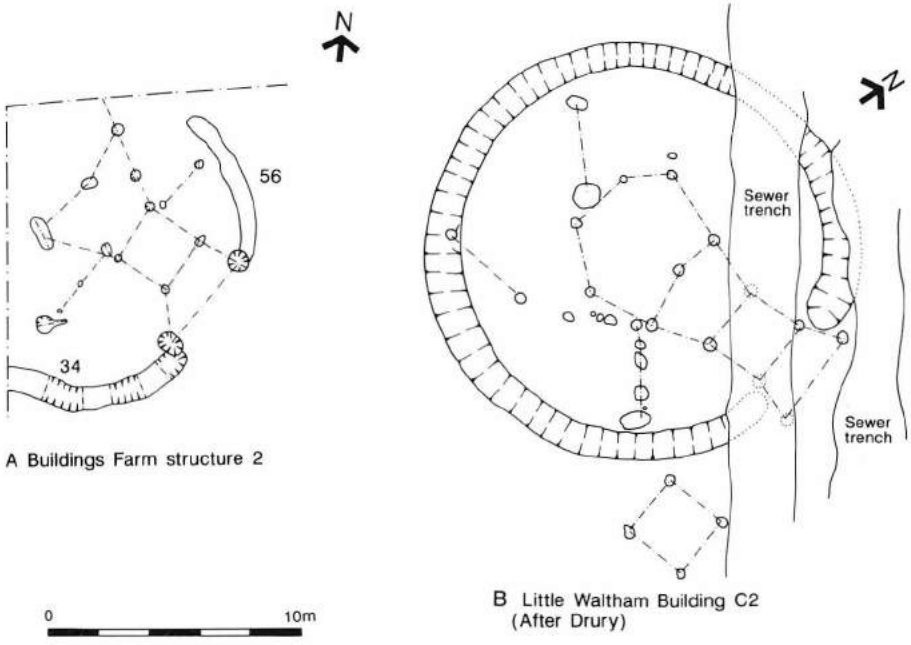


Fig. 8 Buildings Farm, Great Dunmow 1993. Comparative plans of Buildings Farm, structure 2 and Little Waltham, building C2 (both Middle Iron Age)

0.18m deep, and ran north-west from the southern limit of excavation for 28 metres before going through a precise 90° turn to the east. At this point it was cut by a 4th-century pit-sequence (421) and was not visible again to the east of it. The northern side may, however, have been as much as 52m in length and have butted directly against the top corner of Field 2.

Field 2

The western limit of Field 2 (ditch 233) was clear, particularly in the aerial photograph, and once again quite insubstantial (0.54m wide and 0.15m deep). Its relationship with 521 consists of a reasonably accurate right angle. A break in 233 almost half way along its 40m length (Fig. 10) was probably a means of access between the two fields. The north side of the field is defined by ditch 205 which was 0.70m wide, 0.16m deep and could be traced for *c.* 34m. The eastern side of field 2 was not visible, and almost certainly lay beyond the limit of excavation.

Other ditches

To the south of Field 2 a short length of ditch was recorded running perpendicular to 521 and extending at least 6.5m. The subsoil in this area was very variable and showed signs of severe root disturbance, making it impossible to tell if this feature (456) continued further. Ditch 382 may have linked with 456 and have formed a narrow strip of land roughly parallel with the south side of field 2. Like the ditches of fields 1 and 2, it was very shallow and narrow. Further southward extension of 456 would take it as far as the western terminal of 177, a relationship which has been destroyed by the penannular gully 160.

Ditch 177 was a slightly curving feature *c.* 45m long and following the general south-west to north-east alignment of the field-system. It was larger than the field-ditches described above, being 0.38m deep and 1.2m wide. Whilst no diagnostic pottery was recovered from this ditch, it is dated to Phase II on stratigraphic grounds, being cut by Phase III ditch 221. Its function within the field system with which it seems to be linked is unclear; there is no indication of any westward extension.

The implication of the aerial photograph is that 456 did indeed run as far as 177, linking with 382 *en route*. The result was a somewhat funnel-shaped plot (enclosure 2, Fig. 27) immediately to the south of Field 2, which could conceivably be associated with the movement of stock. A shallow gully (338) south of the west end of 382, could not be traced to the west, but may be associated with enclosure 2.

The terminal of a large ditch (186) just entered the excavation limits in the north. No dimensions were ascertained for this feature, but it was deeper than 1.20m and wider than 3.5m. Two major recuts had clearly been made during its lifetime (Fig. 11), the earliest of which contained large quantities of charcoal and burnt daub, possibly indicating a burnt-down mid-1st century building in the vicinity.

Ditch 92 entered the site from the west and cut the south side of the Middle Iron Age enclosure ditch (36). Its upper fills are comfortably dated to Phase III, but earlier pottery in the lower excavated fills may suggest

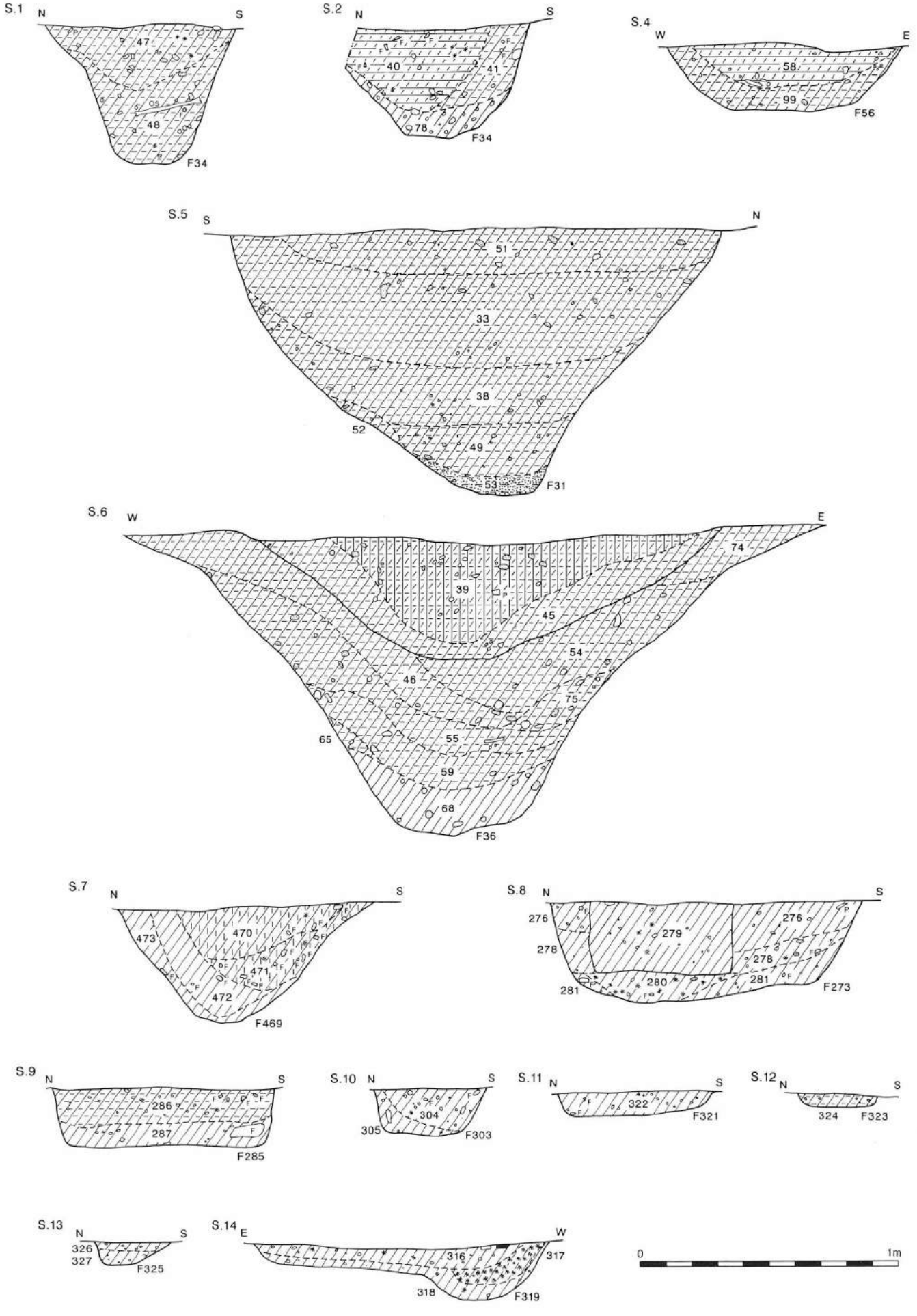


Fig. 9 Buildings Farm, Great Dunmow 1993. Sections through Middle Iron Age (Phase I) features.

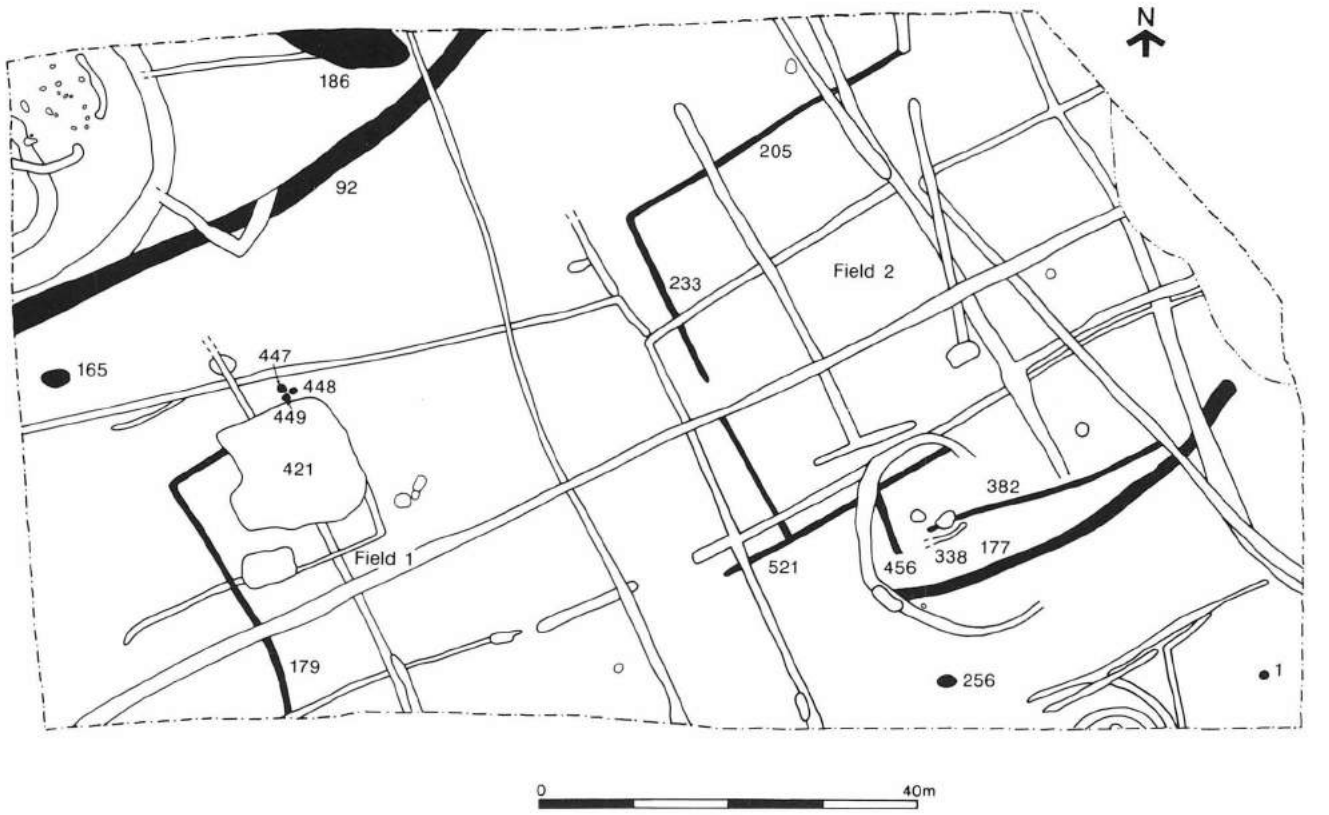


Fig. 10 Buildings Farm, Great Dunmow 1993. Plan showing Late Iron Age/early Roman (Phase II) features in black; other features in outline.

that the origins of this feature lie in Phase II, particularly when it is noted that in segments 97 and 115 this feature was not fully excavated owing to depth restrictions imposed by the developer. It has no spatial or stratigraphic relationship to features of either Phase II or III, but is cut by Phase IV ditch 82.

Whilst the date of the cutting of ditch 92 remains uncertain, it seems possible that it was deliberately back-filled during Phase III during the creation of the later field system to make way for Field 6. The function of this ditch (which was much more substantial than those making up the field system) could well have been the division of land into distinct areas concerned with different functions. The presence of burnt building material in ditch 186 suggests that 92 may have separated the farm buildings from the fields.

Pits

Six pits are identified as belonging to Phase II.

Pit 1 lay close to the south-east corner of the excavated area. It was almost circular in plan with a diameter of 0.85m. The sides were very steep, and its base, at a depth of 0.55m was slightly concave.

Pit 165 lay south of ditch 92 towards the western limit of excavation. This was oval, 2.5 x 1.7m and 0.45m deep with fairly steep sides and an irregular base.

Pit 256, *c.* 34m west of pit 1 was oval: 1.85m long and 0.90m wide. Steep sides gave way to a flat base at a depth of 0.33m.

Immediately north of (Phase V) pit 421 were three small pits: 447, 448 and 449. Pit 447 was 0.66m in diameter and 0.15m deep with steep sides and a flat base. Pit 448 appears to have been oval, 0.80m by *c.* 1m with steep sides and rounded base at a depth of 0.22m. Pit 449 was the smallest of the three, being *c.* 0.42m in diameter and 0.10m deep with moderately sloping sides and a rounded base. It contained no pottery, but has tentatively been included in Phase II because of its association with 447 and 448.

Phase III: Late Iron Agelearly Roman:

When the ditches of Phase II silted up, no attempt was made to recut them. Instead, a new field-system was established on the same axes (Fig. 12). 521 was replaced by a new ditch-line north of and parallel to it. Three lengths of this ditch-line were contained within the excavated area (16, 330, 344), the gaps providing access to and from the area south of the recorded fields. Three fields (Fields 3, 4 and 5) were identified, one being a slightly later addition to the system which clearly extends further to the south, west and probably the east, since the east to west ditches of the system all

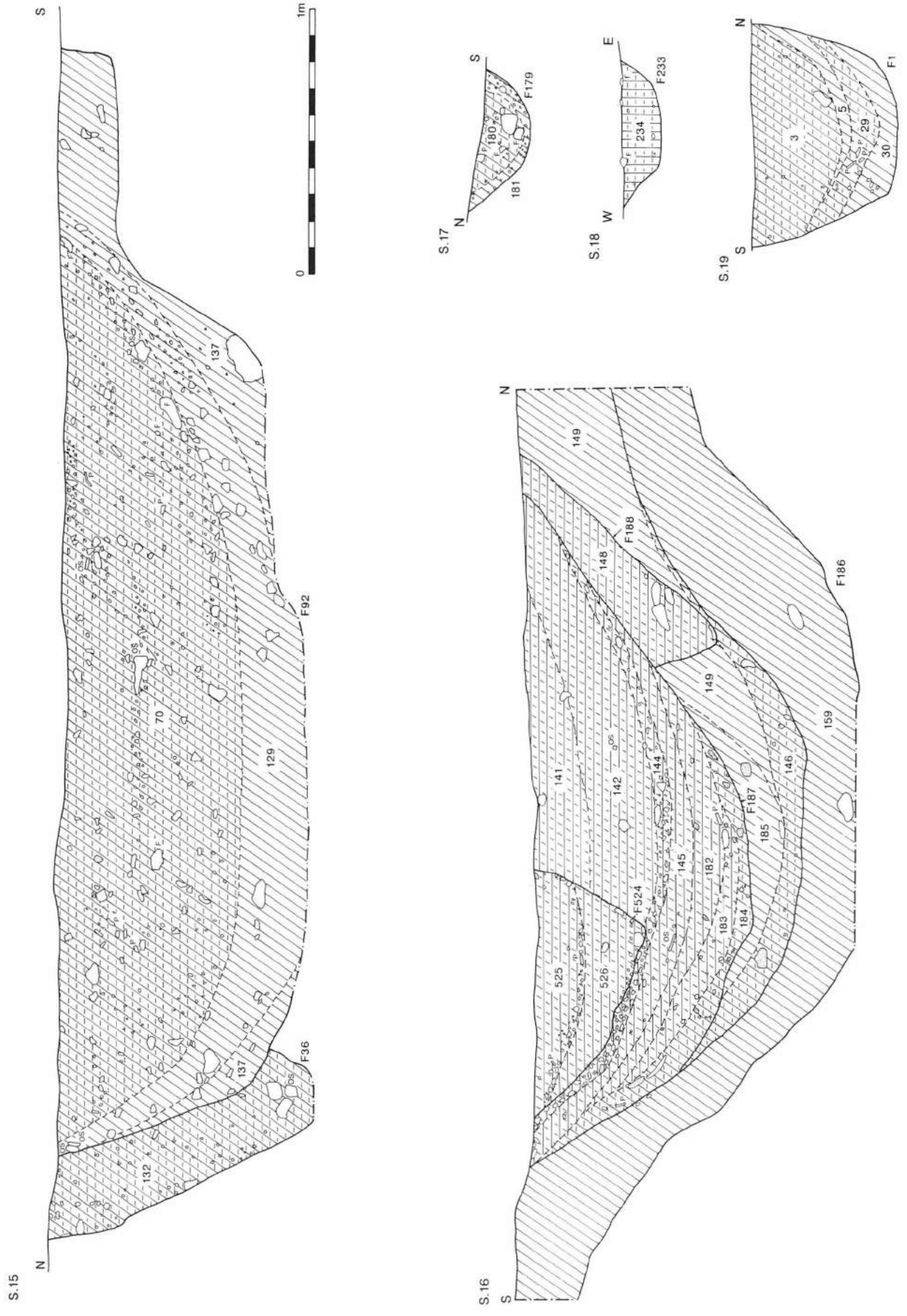


Fig. 11 Buildings Farm, Great Dunmow 1993. Sections through Late Iron Age/early Roman (Phase II) features.

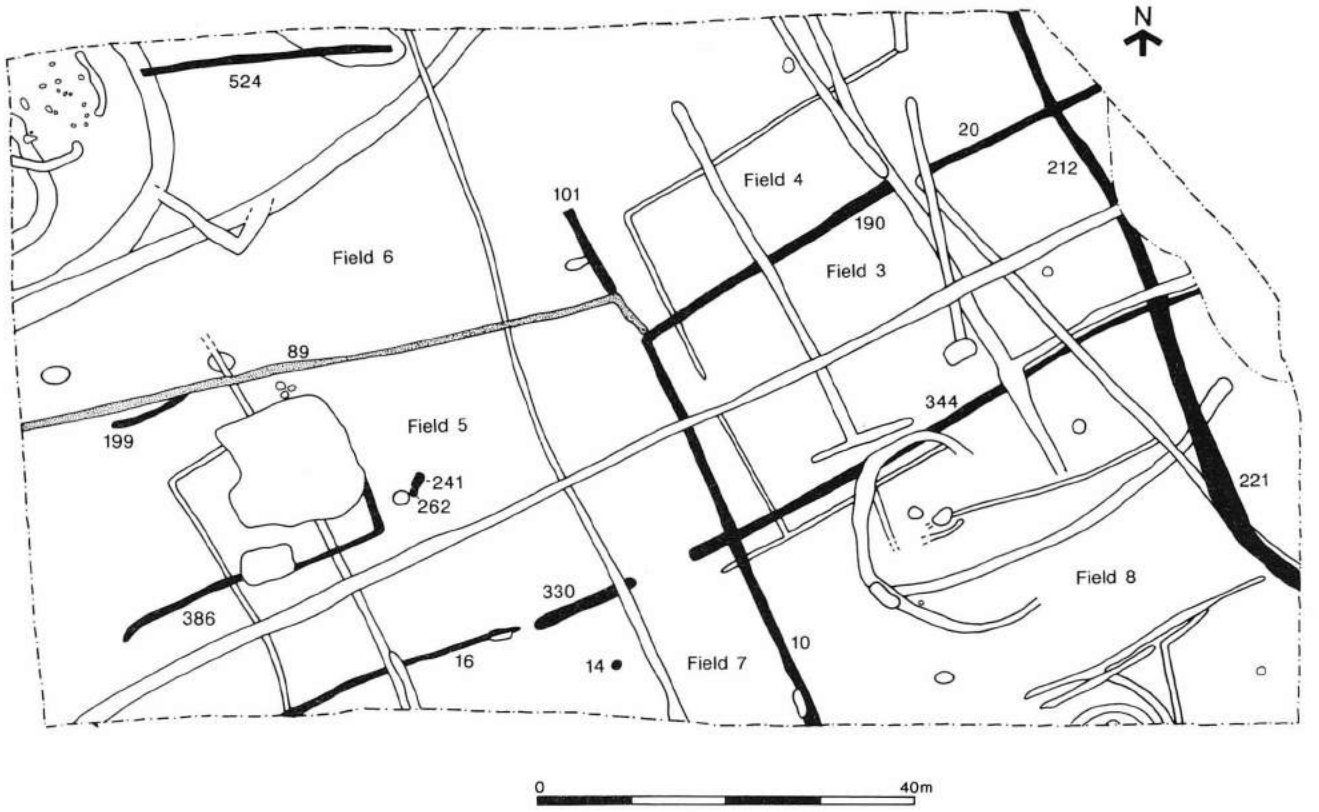


Fig. 12 Buildings Farm, Great Dunmow 1993. Plan showing Late Iron Age/early Roman (Phase III) features in black; other features in outline. Stipple indicates a minor sub-phase.

continue beyond the easternmost north to south ditch recorded on site. Further elements of the Phase III arrangement are conjectured in the northern part of the excavation area (see Discussion).

Field 3

The most clearly defined field of Phase III extended north from ditch 344. Its west side was formed by 10, which also extended south of 344 to the limit of excavation. 22m north of 344, ditch 10 turned 90 degrees to the east and continued as 190 forming part of the northern side of the field. After another 22m, 190 terminated to provide an entrance to Field 4. The line was then taken up by ditch 20 which continued to the eastern edge of site. The eastern side of both Field 3 and Field 4 is formed by 212. Like ditch 10, 212 continued south beyond 344, although it became deeper and wider and was designated 221 (Fig. 13). 16m south of 344 this feature curved away to the east and out of the excavated area.

Field 4

To the north of Field 3 lay Field 4, which used 190 and 20 as its southern boundary and 212 as its eastern side. The west side was marked by ditch 101, which began *c.* 5m north of the junction of 10 and 190. Ditch 101 could only be traced for 16m to the north, and there was no sign of a northern limit to Field 4 visible during excavation, but a very faint line can be seen running across the disturbed north-central part of the site in the aerial photograph.

Field 5

The gap between 101 and 190 was only a temporary entrance to Field 4, and was soon closed by ditch 89 which turned west upon meeting the terminal of 101, and continued at least as far as the limit of excavation, a distance of 64m. The area between this and ditch-line 16/330/344 was Field 5. This was much bigger than Fields 3 and 4, and slightly less regular, since 89 follows an alignment closer to true east-west than 16/330/344 does, causing Field 5 to widen slightly towards the west.

Field 6

A 25m length of ditch (524) cutting ditches 36 and 186, was observed, parallel to 89 and 35m north of it. This feature could not be seen cutting across (Phase I) Structure 2 at the western end, nor was it visible east of (Phase II) ditch terminal 186. The profile of this feature was an uneven V-shape, 0.95m wide and 0.40m deep, being deepest towards the north side. It is possi-

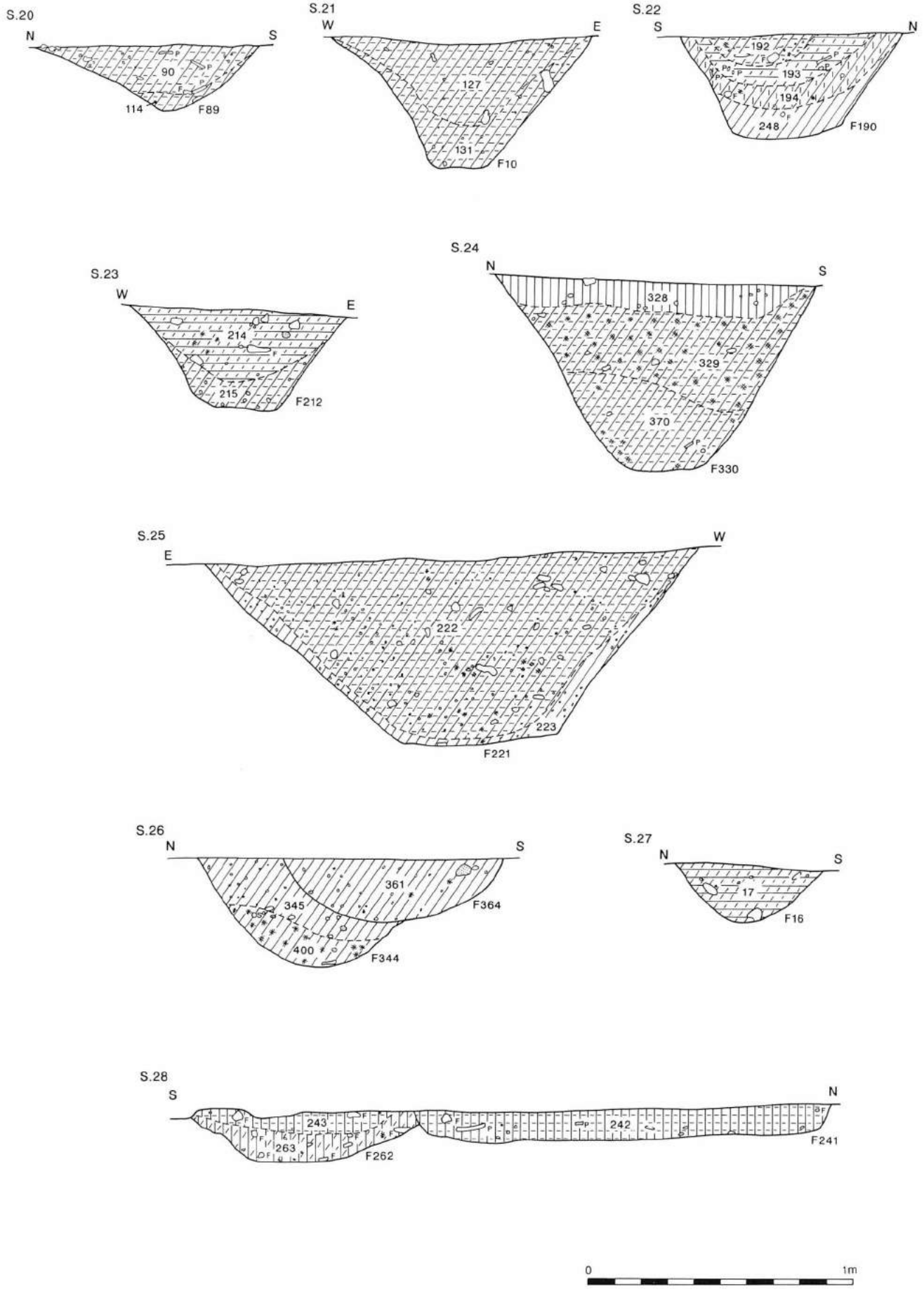


Fig. 13 Buildings Farm, Great Dunmow 1993. Sections through Late Iron Age/early Roman (Phase III) features.

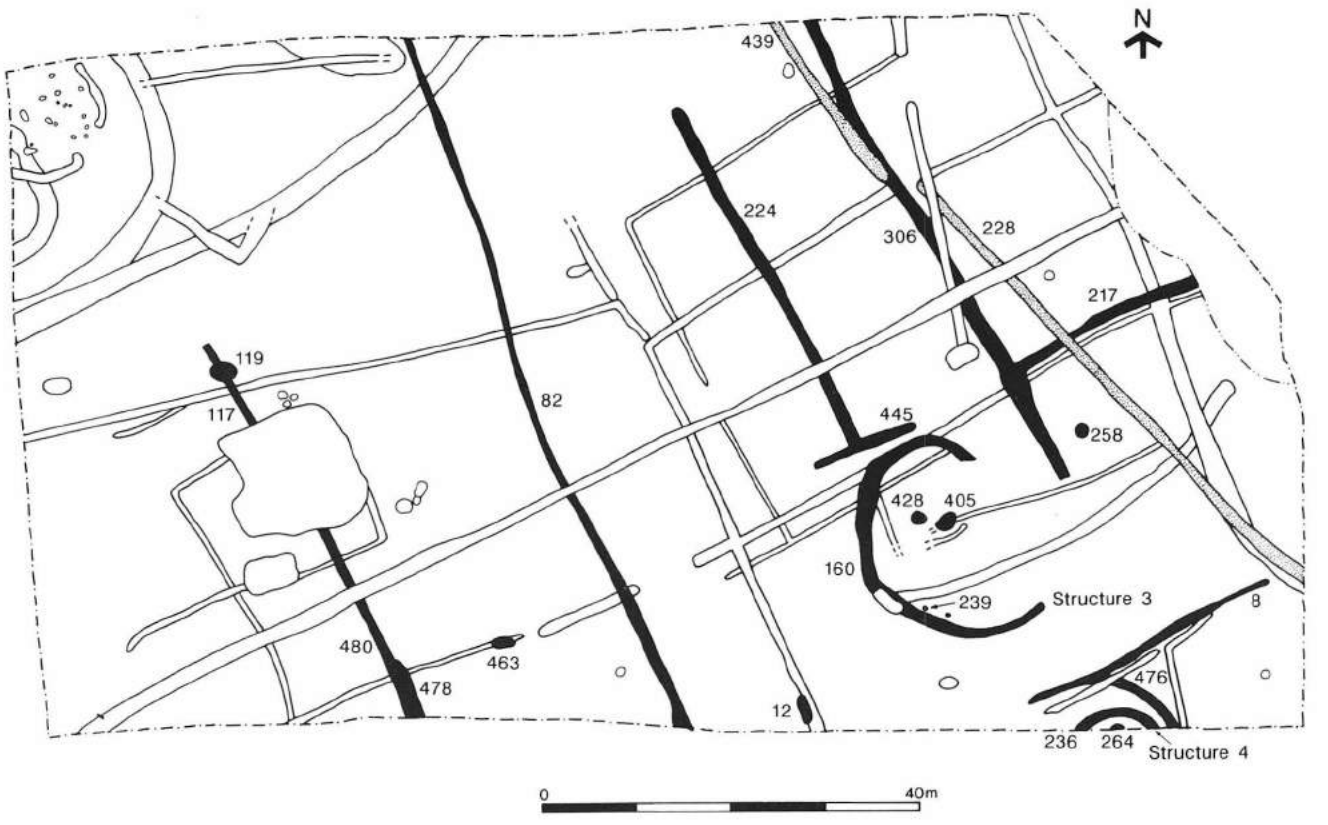


Fig. 14 Buildings Farm, Great Dunmow 1993. Plan showing mid-late Roman (Phase IV) features in black; other features in outline. Stipple indicates a minor sub-phase.

ble that this marked the northern side of another field lying to the north of 89 and using an extension of 101 as its eastern limit.

Within the large area which subsequently became Fields 5 and 6 lay what appears to have been an open-ended rectangular enclosure. Elements of this were recorded during excavation as ditches 153, 199 and 386, all of which were shallow, narrow ditches with a rounded profile. The northern boundary, 386 was interrupted by the 4th-century (Phase V) pit-sequence 312. Most of 153 was destroyed by pit-sequence 421, but the aerial photograph shows an indistinct continuation running as far as ditch 89, which also cut 199. The north to south dimension of this enclosure would have been approximately 22m, the same as that of Field 3.

Field 7

To the south of the line formed by 16, 330 and 344, and west of 10 lay the north-west corner of what may have been a further rectangular field, although no west or south sides were observed, and its dimensions are therefore unknown.

Field 8

Directly east of Field 7 was Field 8. This had good north and west sides formed by 344 and 10 respectively. The east side was less certain due to the rather uncertain line of 221. The south side was not located. Ditch 8, which would have been in approximately the right place for the south side of a field the same size as field 3, was demonstrated to be later than Phase III.

Other possible fields

Ditches 20 and 344 both continued to the east of the line formed by 212 and 221, and indicate that the field system continued to the east of the excavated area. Unfortunately only a small area to the east of this alignment lay within the excavation, and most of this was destroyed by massive modern disturbance.

Other features

Three pits are interpreted as belonging to this phase, and have no identifiable relationships with the field-system.

Pit 14 to the south of ditch 330 was a very truncated circular feature 0.70m in diameter and surviving to a depth of only 0.08m. A slightly concave base remained.

Within Field 5 lay pit 241, cut by pit 262. 241 was rectangular (1.54 by 0.90m) and very shallow (0.12m) with a flat base. 262 cut the southern end of it, and was

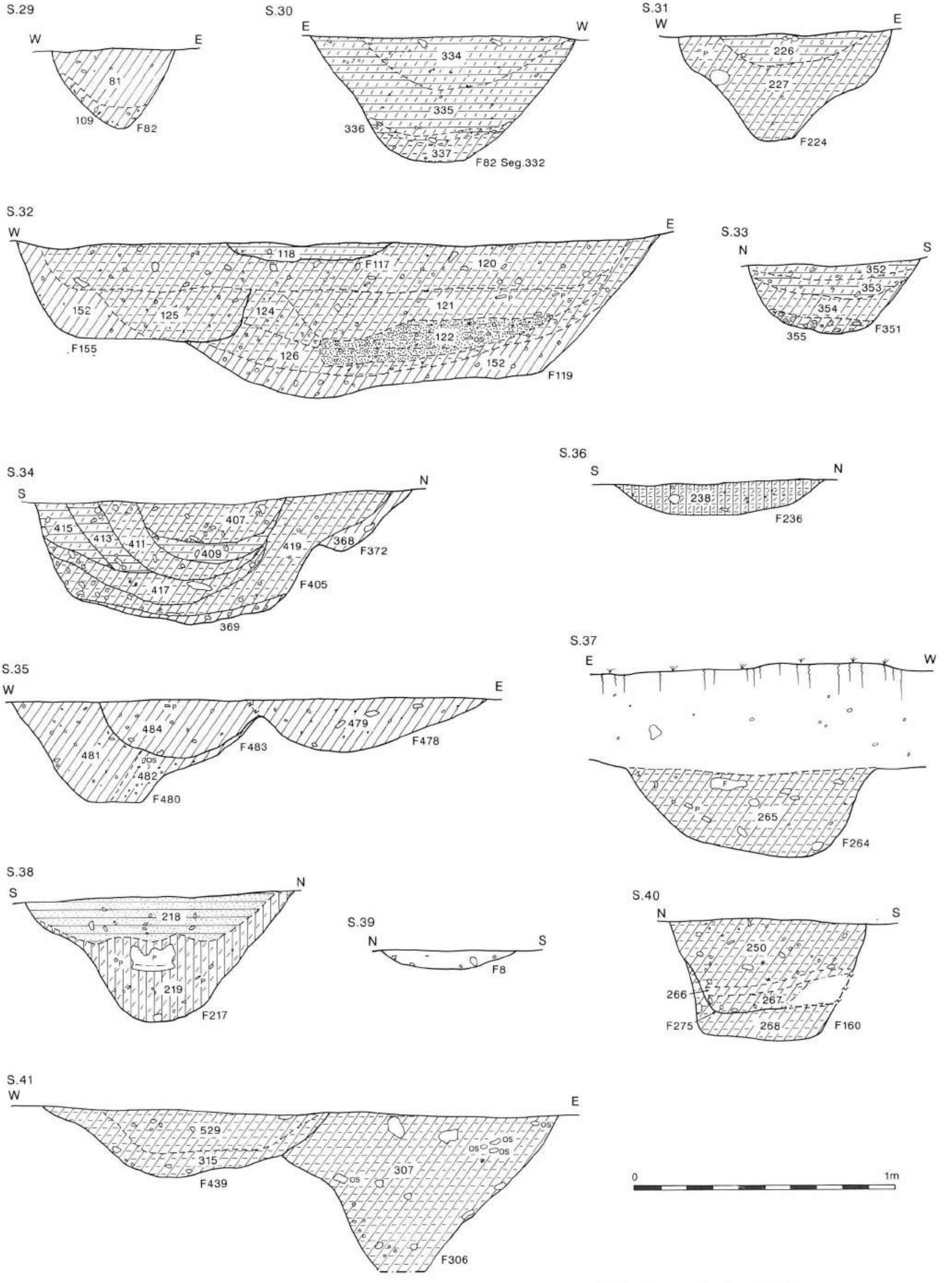


Fig. 15 Buildings Farm, Great Dunmow 1993. Sections through mid-late Roman (Phase IV) features.

a circular feature 0.90m in diameter and 0.2m deep. They are both assigned to Phase III on the grounds of pottery from their fills, but it is possible that the finds from 262 may be residual and derived from 241.

Phase IV: Mid-late Roman:

A new arrangement of features was established during the mid-Roman period which did not form recognisable fields, but comprised four ditches following the north-west to south-east axis with only fragments of ditches on the corresponding south-west to north-east axis being recorded (Fig. 14).

Also at this time, two penannular gullies were introduced in the south-east corner of the excavated area. These have been designated Structures 3 and 4, though their actual interpretation as such is far from definite. Circular structures in lowland Britain appear to have been fairly scarce during the Roman period. At Baldock, however, two such structures were located (buildings V and VII, Stead and Rigby 1986), apparently dating from the 2nd century. These, however, were far smaller than Structure 3, being only around 6 to 7m in diameter. Also, both were associated with infant burials, for which there was no evidence at Buildings Farm. There is also a slightly oval early Roman structure from Kelvedon (Clarke 1988), *c.* 6.5 to 8.0m across, though this is dated to the first few decades of the Roman period.

The ditches

The westernmost feature comprised two lengths of ditch on the same alignment, which cut features of Phase III and were cut by those of Phase V. The southern stretch (480) was 0.40m deep and at least 1m wide. Successive recuts, however, had truncated the eastern edge. The final recut, 478, could be seen in plan extending *c.* 7m from the south baulk before terminating. 480 could be traced as far as the large (Phase V) 4th-century disturbance 421, which obliterated it for a distance of 13m. North of 421 the same line was followed by 117, almost certainly the same feature. It could be seen on the ground cutting ditch 89 and pit 119; here it was less substantial, surviving only to a depth of *c.* 0.05m and being only 0.50m wide. North of this it was possible only to discern a vague line which extended at least as far as ditch 92, but did not seem to cross the area of Middle Iron Age occupation.

Ditch 82, 26m east of 117/480, followed the same axis, cut Phase III ditches 92, 89 and 330 and was cut by ditch 110. A decrease in size of the northern part of this ditch, similar to that of 480/117, was also recorded: segment 332, towards the south baulk was 1m wide and *c.* 0.50m deep, whereas segment 83, in the north, was far slighter (0.47m wide and 0.30m deep).

Ditch 224 may have entered the site from the northern baulk, although the ground was generally very disturbed here, and the ditch could not be seen. It continued parallel with 82 and 28m to the east until it joined 445, a ditch on the same axis as 344 and 521. Ditch 224 was 0.80m wide, and 0.40m deep. 445 was on the same alignment as 217 to the east and between them they form one of only two lateral ditch-alignments in this Phase. The profiles of these two ditches are very different; 445 being a shallow, rounded bowl-shaped feature 0.30m deep and 1.2m wide, whilst 217 was slightly deeper (0.50m), and narrower (1m) with much steeper sides.

The last ditch to be recorded on the north-west to south-east axis, 306, lay 16m east of 224. In segment 307, it had a fairly sharp profile with a flat base, at least 1m wide (part of the west edge was removed by 439) and over 0.60m deep. Ten metres north of this, in segment 359, it was 0.72m deep and 1.1m wide with a suggestion of a more U-shaped recut 0.50m deep. This feature joined 217 and continued at least 12m to the south of it.

About 32m south of 217 was ditch 8, a shallow, narrow feature 0.13m deep and varying from 0.5 to 0.8m wide. It appears to have been a boundary between Structures 3 and 4.

Structure 3

In the rectangular space formed by 82, 445/217, 306 and 8 lay *c.* 60% of the circuit of an oval ditch. It measured *c.* 23m from north to south, an estimated 18m from east to west. The ditch itself, 160, was complicated by various earlier and later features, but was recorded as varying in depth between 0.30m and 0.40m and in width from 1-2m (probably the result of truncation) with a fairly steep-sided, flat-based profile. In profile, it resembles a beam-slot, rather than a drip gully, but no evidence of timbers was located.

Within the circuit of 160 lay two pits in a nearly central position. Pit 428 was a slightly irregular oval, 1.25m x 1.4m and 0.37m deep; 405 was larger (2m by 1m and 0.45m deep) and far more complicated. It appears to have been recut at least seven times (Fig. 15). Once all of the recuts had been excavated, a shallow depression (437) crammed with chalk blocks was located cut into the base of the pit. It is suggested that 437 was a solid base for a post which was frequently replaced, and that 405 is a posthole. Its approximately central position within 160 adds weight to the possibility that this is a structure.

In addition, five possible postholes lined the south side of 160, but upon investigation only one of these was definitely an archaeological feature (239). Its shallowness (0.13m) and small diameter (0.22m) may indicate that the other four features were the bases of heavily truncated postholes.

Structure 4

The northern part of the circuit of another penannular gully lay just within the site limits to the south of 8. The gully, 236 was very shallow (0.14m) with a rounded profile 0.8m wide. Extrapolation of this feature beyond

the limit of excavation suggests a circle of *c.* 10m, again larger than the Baldock examples, but perhaps within a more acceptable range for comparison. Within the circuit of 236 was the northern part of a feature interpreted as a pit. This pit, 264, was steep sided with a concave base, 0.35m deep and 1m wide. This was sectioned at the southern baulk, but its full extent is unknown.

Other pits

Five pits not associated with Structures 3 and 4 were recorded. Pit 119 belongs either to the beginning of this phase or the end of Phase III, as it was cut by ditch 117. It was oval (2.3m by 1.65m) and 0.60m deep. A slight ledge on the western side is formed by 155, a small pit or posthole cutting into the lower fills of 119, but sealed by the upper fill (Fig. 15). It was only recorded in one section, and its full dimensions are unknown; however, it was 0.5m wide and 0.2m deep.

Two oval pits were dug into Phase III ditches. Pit 12 cut ditch 10, and measured 3m by 1m; it was 0.5m deep. Pit 463 cut ditch 16 close to its terminal and was 1.13m by 1.04m, and 0.22m deep.

258 was a small, circular pit, 1.5m in diameter and *c.* 0.2m deep with steep sides and a concave base.

Phase IV.i

Ditch 228 ran north-west, south-east across the eastern end of the site, but at an angle to the principal site axis (Fig. 14). It was 1.3m wide and 0.29m deep. Stratigraphically this feature belongs at the earliest to Phase IV. Its association with 439 (below) and the fact that it cut ditch 217, place it late in this phase.

Continuing the line of 228 was ditch 439. It was 0.89m wide, 0.20m deep, and steep-sided with a flat base. It cut 306 and was cut by 24. Late 2nd to mid 3rd-century pottery was recovered from its fill.

Cutting 160, pit 156 was a shallow oval feature aligned north-south, almost following the line of the earlier gully. It was 1.40m long, 0.60m wide and 0.20m deep.

Phase V Roman: Late 3rd – 4th Century AD

Activity on site during the late 3rd and 4th centuries was limited to the cutting of four ditches and a number of pits (Fig. 16).

Ditches

Ditch 24 lay on an almost due north-south alignment. It was 1.20m wide, 0.55m deep and *c.* 26m long, being

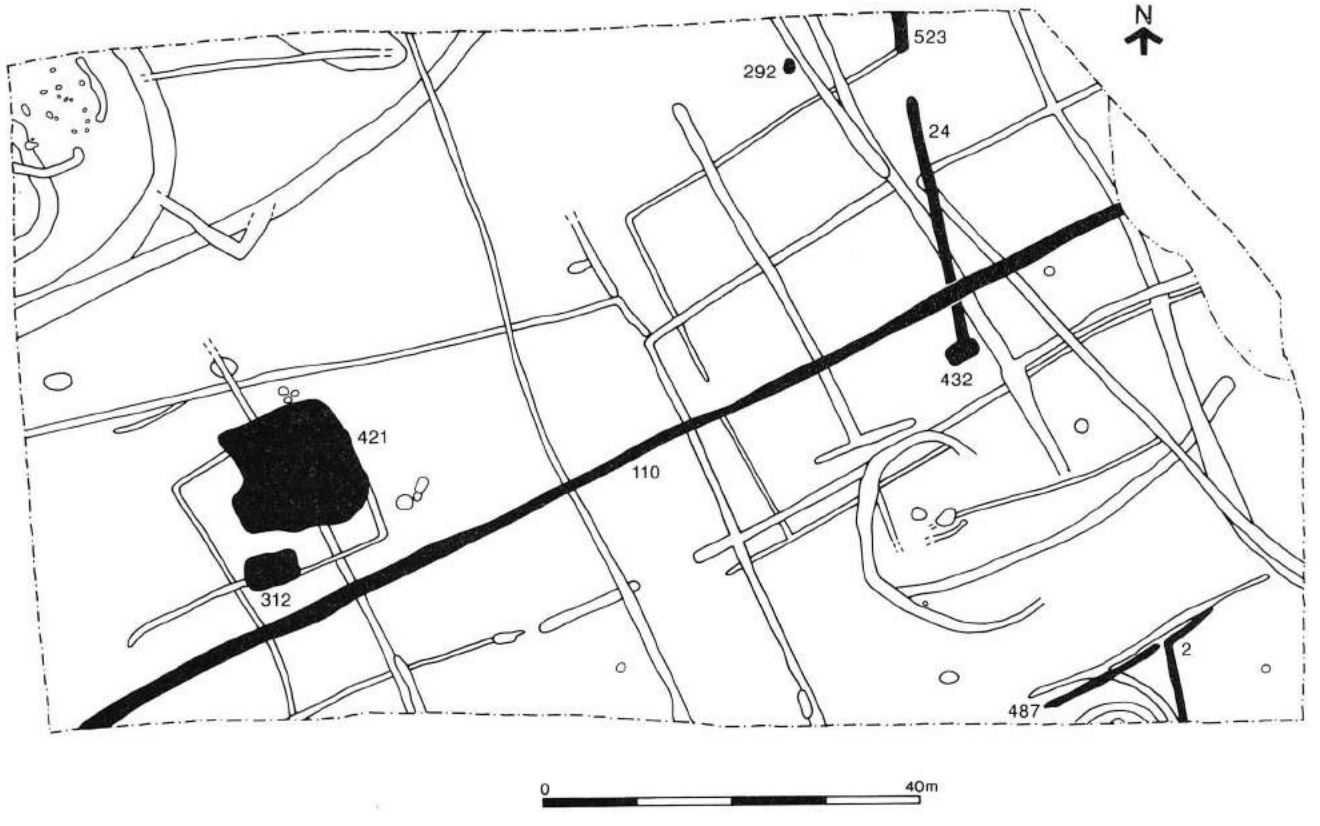


Fig. 16 Buildings Farm, Great Dunmow 1993. Plan showing latest Roman (Phase V) features in black; other features in outline.

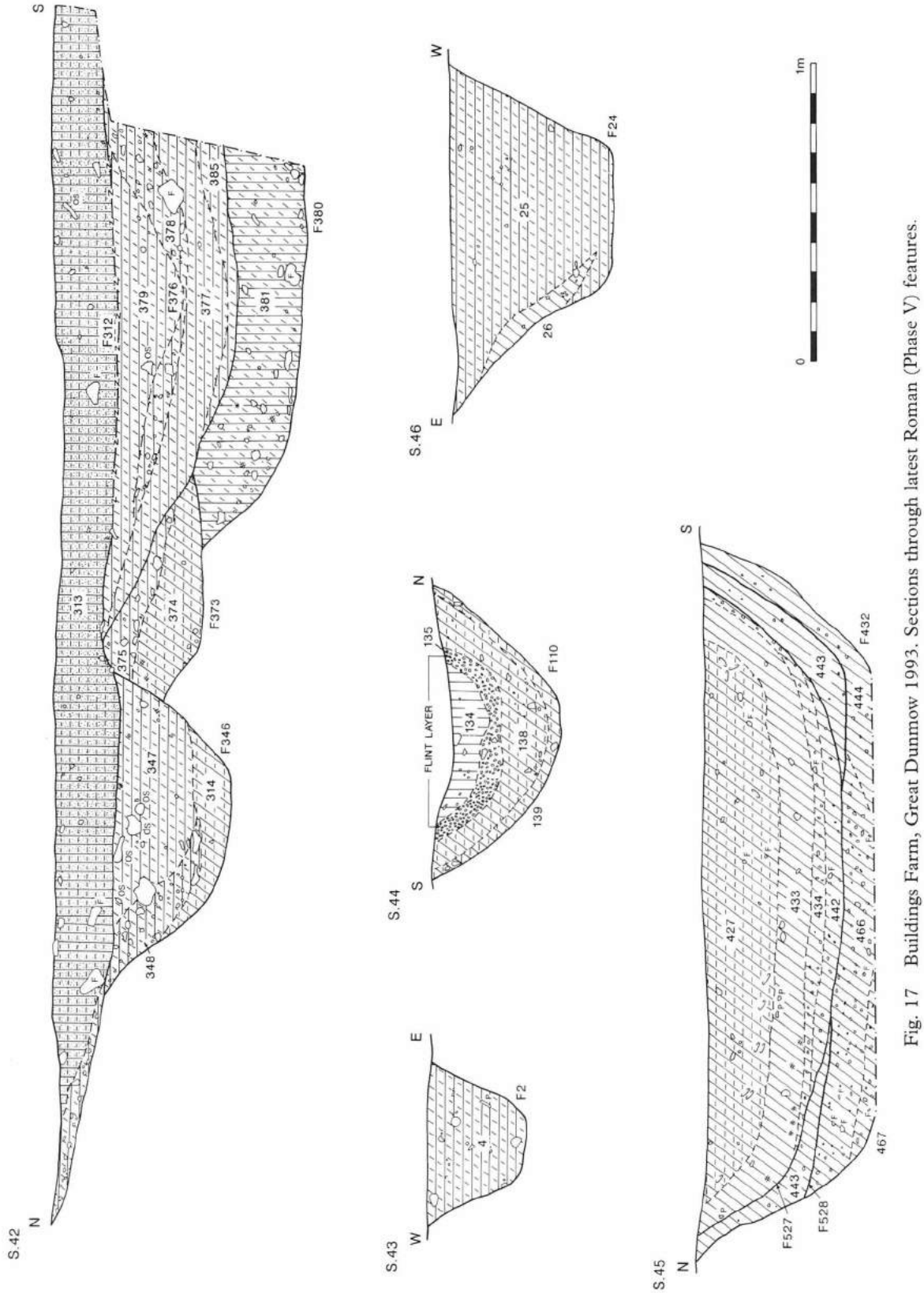


Fig. 17 Buildings Farm, Great Dunmow 1993. Sections through latest Roman (Phase V) features.

cut at its south end by pit 432. No sign of this alignment was observed south of 432, but following a gap of 5m beyond the northern terminal, the line was continued by 523 for 4m up to the northern baulk. There was possibly a posthole cut into the base of 24 at its northern terminal, but this may have been animal disturbance. Pottery from feature 24 tends to indicate an early date, but coins recovered during metal-detecting from both 24 and 523 give a mid-4th century date.

Ditch 110 was established along the main south-west to north-east axis. Whilst this 1m wide and 0.40m deep ditch cut many earlier features, it does not appear

to be directly associated with any that are contemporary, and only one later feature: the very recent disturbance at the eastern edge of excavation cut through it. No pottery later than the 2nd century was recovered from this ditch but it can be quite firmly dated by coin evidence. Coins of Galerius (293-311) and Diocletian (284-305) put this feature in the 4th century, whilst the fact that it cut 24, which contained issues of Constans (337-350) and Constantius (337-361), indicates a date at least as late as the middle of that century.

The only other ditches were in the south-eastern corner, and may have formed part of a new field system mainly lying to the south of the excavated area. Ditch 2 seems to have formed the west and north sides of an enclosure, and 487 continued the south-west to north-east line further to the west. Both these features were very slight (*c.* 0.5m wide and 0.33m deep at the maximum).

Pits

Two discrete pits and two sequences appear to belong to this final phase.

Pit 432 was a large feature which cut the south end of ditch 24. It measured 3.5m x 2.5m, but the depth was only investigated to a depth of 0.60m (Fig. 17) because of restrictions imposed by the developer. Whilst it contained only residual 2nd-century pottery, it is dated to Phase V by its relationship to 24, which contained 4th-century finds. A small round pit, 292, *c.* 1.10m in diameter and 0.50m deep lay in the northern part of site; its sides were irregular, but steep and its base uneven. It is dated to Phase V by pottery from its fills.

Feature 312 was the top cut of a sequence of pits, most of them undated. The fill of 312, a sub-rectangular pit 6m by 3.6m and 0.25m deep, is securely dated to the 4th century. Sealed by 312 were pits 346, 349, 373, 376 and 380 (Fig. 17), none of which contained diagnostic pottery, and which can only be dated relative to each other. Within this sequence lay the very base of gully 386, which could be seen cutting the fill of 380 in the east facing section, but had been completely obliterated by 376 in the west facing section. This probably means that 386 belongs to the late 3rd or early 4th century.

North of 312 was a large, irregular area of very dark soil, 421 (Fig. 16). This was shown to be very shallow (*c.* 0.30m), and to contain 4th-century pottery. The base appeared very uneven, and in the small box-section excavated in the eastern side part of a large, irregular pit was recorded. Pit 425 was 3m across at the section, and over 0.60m deep. It seems likely that several more pits lay in this area, but time pressure precluded further investigation.

Undated features

One feature, excluding those below 312, cannot be comfortably placed in any of the phases described above. Pit 271 (Fig. 5) lay close to 262 and was circular (1.72m in diameter) with irregular, moderately sloping sides and a concave base, 0.50m deep. It has no stratigraphic relationships or diagnostic pottery.

The finds

The prehistoric pottery

N. Brown

The excavations produced a small quantity of prehistoric pottery (116 sherds; 1.37 kg.) which has been recorded using a system devised for prehistoric pottery in Essex (details in archive); where percentages are given they refer to sherd number/sherd weight in that order.

The pottery is tempered with flint (23%/12%), sand and flint (16%/16%) or sand sometimes with vegetable inclusions (56%/71%), a few sherds being too small for identification (5%/1%). This range of fabrics is typical of Middle Iron Age pottery (e.g. Drury 1978; Brown 1991).

About half the pottery (48 sherds, 622g) came from the gully of roundhouse 80. This material included a number of joining sherds of two vessels of distinctly Middle Iron Age type (Fig. 18). A date within the range 300-100BC may be suggested.

Relatively large quantities were also recovered from ditch 31 (17 sherds, 89g) and ditch 36 (16 sherds, 381g). The latter included a large sherd of thick-walled storage jar in a distinctive very coarse sand tempered fabric. this sherd had a comb-decorated exterior, reminiscent of the decoration on 'Belgic' coarse jars (e.g. Birchall 1965, fig 1.6, 7.50, Rodwell 1976, figs 15 and 16).

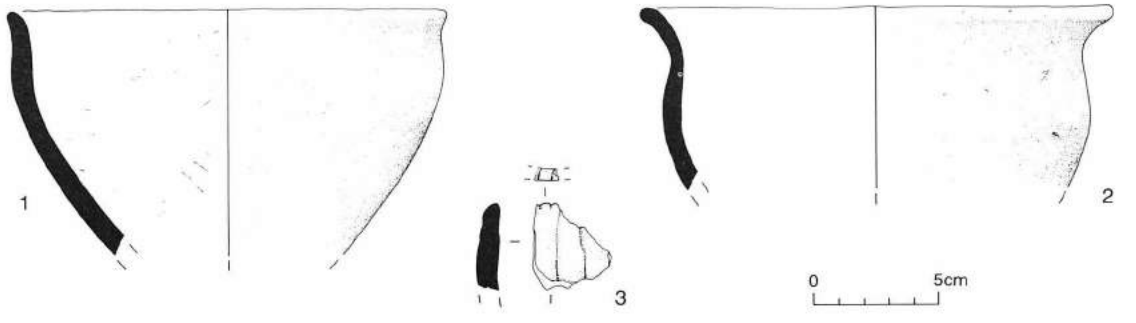


Fig. 18 Buildings Farm, Great Dunmow 1993. Prehistoric pottery.

Illustrated Sherds

Fig. 18, 1 Four joining sherds of vessel of Little Waltham form 11 (Drury 1978). Sand temper with voids left by burnt out vegetable matter. Smoothed exterior with traces of burnish surviving. Context 35.

Fig.18, 2 Two joining sherds of vessel of Little Waltham form 13 (Drury 1978). Sand temper with voids left by burnt out vegetable matter. Smoothed surfaces with traces of burnishing surviving. Context 58.

Fig. 18, 3 Rim of jar with incised decoration on rim and exterior, similar to pottery from Wendons Ambo (Hodder 1982, fig. 27).

The Late Iron Age and Roman pottery

by Colin Wallace, with I C Freestone, M S Humphrey and Warwick Rodwell

Introduction

The pottery (6133 sherds, 67.1 kg) has been studied to provide dating-evidence. There were four broad date-ranges for the pottery (corresponding to Phases II to V, respectively): Late Iron Age/early Roman (early-late first century AD), Mid Roman (early second-early/mid third century), Late Roman (later third-fourth-century) and Latest Roman (late fourth century+). Six contexts contained sherds of broadly 5th to 8th-century handmade wares (Tyler, below).

The pottery as dating evidence

The site phasing was derived largely from stratigraphic relationships and reconstruction of alignments.

Pottery as dating evidence is considered below, as evidence (of a sort) for the disuse of one phase and the commencement of another. In all phases the date-ranges that could be assigned to a context's pottery were often quite wide, the amount of residual pottery increasing through time. In the listings below only the key pieces appear; exhaustive details for each context are in the Site Archive.

There is a full Archive Report, based on the (Level III) Pottery Spot-Dating Forms, which considers every feature. The pottery is classified using the system current for all ECC sites (see Going 1987, 3-54), supplemented here by references to Thompson (1982), *Camulodunum* (Hawkes and Hull 1947) and Holwerda (1941) for the Late Iron Age material and the Colchester form-series (Hull 1963, 178-91) and Marsh (1978) for the Roman.

Here **only the better-dated features** are considered, detailed in phase order. The dates of a feature's fills are taken as evidence for disuse; only by relating the feature to those of later phases is there any way of suggesting how much earlier it was cut. Good use/initial fills have not really been identified on this site. The well-dated contexts are those where there is sufficient pottery present to allow the residual material to be clearly identified. Any estimates of the **Reliability** of the dates suggested for the fills of each feature depends to a large extent on the number of sherds: small-sized contexts are those with <30 sherds; medium-sized ones have between 30 and 100 sherds; large-sized ones >100 sherds.

Because of the likelihood that much of the pottery would be residual, it was thought worthwhile to assess the quality of each context and assign a code indicating this (an idea derived from the Baldock report: Stead and Rigby 1986, 257). The size categories mentioned above (small, medium and large numbers of sherds) would not be sufficient on their own. The three classes are defined as follows:

1	good	medium-large numbers of sherds; good condition; diagnostic forms recorded
2	middling	small-medium numbers of sherds; condition worse than 1, better than 3; often only classes or broad types recognised
3	poor	either assigned on CONDITION: number of sherds varies; condition always poor (abraded, fragmentary) or on SIZE: small number of sherds; no rims or other diagnostic sherds

The impressions gained from this reinforce the conclusions drawn from Table 3 below, about Phase IV, for example. The best-preserved material – the Phases II and III pottery and the two best Phase V contexts – is illustrated below, after this dating evidence section.

Disuse of Phase I features (the Middle Iron Age settlement)

Late Iron Age for the structures; mid Roman for the ditch

Structure 1/F31

33 *Potin coin; Prehistoric pottery; Misc. pottery*: fabrics **50** and **53**

The latest pottery in the fill of gully F31, which defines the earlier of the two Middle Iron Age structures. **Reliability**: small-sized context

Structure 2/F56

304 *Misc. pottery*: jar rim, Thompson Class C1-2 or 1-4 **(53)**

Even though Structure 2 was stratigraphically later than Structure 1, there was only Middle Iron Age pottery in the fills of the gullies (contexts 34, 35, 40, 41, 43, 47, 48, 58 and 62), plus a tiny amount of intrusive Roman pottery in noticeably poor condition in 34 and 40 (3 sherds). Postholes belonging to the structure produced small amounts of MIA (contexts 276 and 286) and LIA pottery (context 304) Cleaning within the roundhouse (context 66) produced a LIA/eR jar rim (G5.1: fabric 50) amongst MIA and LIA bodysherds and there was a single sherd of LIA pottery from a post-hole (context 63) cutting gully F56. A finds group from the area of Structure 2 (i.e. not directly associated with it) largely contained South Spanish amphora bodysherds (context 297). ***Reliability:*** small-sized context.

Ditch F36

132 *Prehistoric pottery*

59 *?MIA-LIA trans. pottery:* combed bodysherd in Brown's fabric X

55 *Prehistoric pottery; Misc. pottery:* dish B2.3 (**45**); fabrics **50** and **53, 39** and **47**

46 *Prehistoric pottery*

45 *Prehistoric pottery; Misc. pottery:* bowl C12/23 (**19**); fabrics **53, 45** and **47**

39 *Prehistoric pottery; Misc. pottery:* dishes B2.3 (**41**), B4.2 (**39**); fabrics **53, 45** and **47**

There was no useful material in stratigraphically early context 132 or in upper fill 54. A bodysherd of a possible MIA-LIA transitional fab-

Table 1

Phase	broad date	1 (good)	2 (middling)	3 (poor)	Totals
II	LIA/eR	2	19	19	40
III	LIA/eR	2	13	16	31
IV	mid-Late R	-	20	48	68
V	latest R	2	13	15	30
	Totals	6	65	98	169

ric was present low down in segment 37 (context 59). Later fills contained small amounts of either MIA and LIA/eR pottery or MIA alone (contexts 55, 46, 54, 45 and 39). However the latest sherds were the mid-Roman dishes in contexts 55 and 39. Putting aside the dish in context 55 from the middle of the sequence of fills, the pottery evidence indicates that this feature went out of use at a later date than the roundhouses; towards the end of the Phase II/III LIA/eR broad date-range. Ditch 36 was cut by later features and context 39 was at the top, evidence for some mid Roman final backfill. ***Reliability:*** all small-sized contexts, except for 39 (medium-sized).

Disuse of Phase II features (the rectangular field system)
Late Iron Age for: F1; F92 (nearest to F186); F165; F179; F186 (most)
LIA/eR for: F92 (most); F186; ?F205; ?F220; ?F256; ?F338; ?F382
Late Roman for: F92 (final); F186 (final)

Pit 1

3 *Misc. pottery*: cups Thompson E1-3 (two of) **(53)**; wide-mouthed bowl G2-3 **(53)**; necked jar B1-1 **(53)**; jar or barrel-shaped butt-beaker **(53)**; platter **(53)**; lid **(53)**; storage jar **(53)**; beaker Going H7 **(34)**; fabrics **15** and **21**

5 *Misc. pottery*: platter G1-9 **(53)**; ?beaker **(53)**

A Late Iron Age, probably first-century AD, group. ***Reliability:*** both medium-sized contexts

Ditch 92

231 *Misc. pottery*: fabric **53**

169 *Misc. pottery*: jars Thompson B2-1/ Cam 229 **(53)**, B2-2/2-3 **(53)**

198 *Misc. pottery*: fabrics **47** and **53**

168 *Misc. pottery*: fabric **53**

116 *Misc. pottery*: jars Thompson B1-1 **(53)**, ?C2-3 **(53)**, ?Cam 254 **(50)**, G24-type **(47)**; flagon J- new form, a cross between J7 and Col 365 **(4)**; fabrics **39, 42** and **45**

87 *Misc. pottery*: jar G3/Cam 256 **(50)**; fabric **53**

91 *Misc. pottery*: jar Cam 229/Thompson B2-1 **(53)**

73 *Misc. pottery*: jar Cam 259/Thompson C1-2 **(53)**; ?beaker **(53)**; fabrics **45** and **50**

72 *Samian*: SG f15/17 or 18 (two of), *cAD80*-110 and *c.* AD70-90 respectively *Misc. pottery*: platter Cam 31-type?Thompson G1-11 **(53)**; cup Thompson E1-4 **(53)**; jars Thompson C6-1 **(53)**, D2-5-type **(53)**, ?Cam 254 **(50)**, ?G20 **(36)**, ?G24 **(47)**, G- **(45)**; flagons J 3.2-type **(31)**, J3.4-type **(31)**, fabrics **15** and **21**

129 *Misc. pottery:* fabric **53**

70 *Samian:* SG f37, cAD75-95 *Misc. pottery*: platters Cam 16B or 30 **(53)**, A2/Cam 24C **(45)**; dish B6 **(47)**; cup Cam 56 **(63)**, Thompson E1-3 **(53)**; jars Thompson C3, C7-1 and C8-1 (three of) **(53)**, ?G20 **(36)**, G- **(45)**; beakers H1 **(39)**, H7-type (45) and Thompson G5 **(53)**; fabrics **15, 21, 26, 50** and **73**

197 *Samian*: SG f36, later Flavian *Misc. pottery*: jar G18-type **(45)**; fabrics **47, 50** and **53**

113 *Samian*: CG f33, Antonine (probably early or mid) *Misc. pottery*: jars G- **(45, 47)**; fabrics **33** and **39**

67 *Samian:* CG chips *Misc. pottery*: dish B6 **(45)**; ?bowl-jar **(4)**; jars G5.1 **(50)**, Cam 254 **(50)**, Cam 230/Thompson D1-4 **(53)**, G- **(39, 45, 47)**; fabrics **1, 2, 26** and **41**

This ditch is later than F36 of Phase I and is itself cut by F82 of Phase IV. The pottery dating is complicated by differences between the different segments of the same feature. The well-dated lower fill 169 (supported by contexts 91, 87, 73 and 231) contained only Late Iron Age grog-tempered wares. Upper fill 116 (if the Late Roman material is ignored for the moment) was much the same, while other upper fills like 72 and 70 have early Roman forms and fabrics alongside grog-tempered and early shell-tempered. There was no useful material in contexts 129, 168 and 198. Residual MIA sherds were found in contexts 198, 168, 87, 73, 129, 70, 197 and 67. The only later pottery – Late Roman – comes from top fills 70 and 116 and is among a much larger amount of LIA or LIA/eR (for example, the split in context 70 is roughly 49 sherds to 202); the later pottery may be taken as evidence for a final levelling-up. Mid and Late Roman pottery also comes from the surface of this feature (contexts 67, properly from the surface of this feature and F36 [Phase I above], and 113). A complication is provided by the fact that the pottery in context 197, a very thin fill at the top of the sequence removed before the feature was recognised, does not contain any such later pottery! In summary: a Late Iron Age episode of filling (segment 115), extending later in most of the feature (to early Roman: segments 97 and 71), with some Late Roman final backfill (segments 115 and 71). ***Reliability:*** large-sized context (70), medium-sized contexts (67, 72, 116, 169, 231), the rest small-sized.

Pit 165

162 *Misc. pottery*: platter Thompson G1-1/Cam 21 **(53)**; jars including. D2-1/Cam 218 **(53)**; fabric **50**

Another Late Iron Age pit-group like F1. There was no useful material in lower fills 163 and 164. ***Reliability:*** medium-sized context.

Ditch 179

180 *Misc. pottery*: trumpet pedestal urn base, Thompson A5 **(53)**; cups E1-1/Cam 212 **(53)**, E1-2/Cam 211 **(53)**, plus two others similar; jar/large butt-beaker **(53)**; fabric **50**

A Late Iron Age group, but like F1 in not being too early, although it is without imports (unlike F 186 etc. below). ***Reliability:*** large-sized context.

Ditch 186

159 Misc. pottery: jar Thompson C6-1 **(53)**

149 Misc. pottery: fabric **53**

There was no useful pottery in fill 149, but a good LIA form in 159.

Recut 187

146 *Misc. pottery*: platters Cam 8 **(63)**, Cam 26/Thompson G1-7 **(53)**; jars including. B1-1 **(53)**; butt-beaker Cam 113, two of **(69)**; lid **(53)**; fabrics **45** and **68**

A good Late Iron Age, probably Claudian-period, group.

Final recut 189

145 *Misc. pottery*: cup Cam 56 **(62)**; jar **(53)**; beakers Cam 91 **(62)**, butt-beaker **(68)**, Thompson G3-4/Cam 92-type **(53)**; lid **(53)**

142 *Misc. pottery*: cup Cam 56, stamped **(63)**; jars **(53)**, G19 **(39)**; butt-beaker **(68)**; fabrics **31, 34, 47** and **50**

141 *Samian*: CG, ?f46, Antonine (mid or late) *Misc. pottery*: platter A1 **(34)**; dishes B1 **(36)**, B6 **(36)**; bowl-jar E3 **(36)**; jars **(53)**, Cam 254 **(50)**, ?G19 **(45)**; fabrics **2, 15, 31, 39** and **47**

A good LIA group in 145, similar to 146; 142 contains the same again plus early Roman pottery. Top fill 141 contains LIA/eR material like 142, with the addition of Late Roman sherds (chiefly Nene Valley colour-coat and Hadham greywares; nothing else of mid-Roman date accompanied the samian). The feature was cut by ditch F188 of Phase III, which contained residual LIA/eR pottery. The dating of the fill of ditch 186 and its recuts is therefore very similar to that of ditch 92, above. ***Reliability:*** 141, 142, 145 and 146 medium-sized contexts, the rest small-sized.

Ditch 456

457 *Misc. pottery*: flask/bottle, Cam 234/235-type **(45)**

The pottery from here can only be given a broad LIA/eR date-range. With the exception of one sherd of grog-tempered ware, it consists of the body, minus the neck and rim, of a flask. While large parts of ves-

sels in several other contexts could be reconstructed, this was noticeable as the only vessel from the site surviving in a more-or-less complete state. ***Reliability:*** small-sized context.

Disuse of Phase III features (the long narrow field system):
While several of these contexts are stratigraphically later than the Phase II feature-fills, they largely contain similar LIA/eR material; the same broad dating is extended to this phase as well.
LIA/eR for: F89; F190 (most); F212; F221 (most); ?F16; ?F20; ?F101; ?F188; ?F199; ?F241; ?F330; ?F344 ; ?F386
mid R for: F190 (top); F221

Ditch 89

90 *Samian*: SG, ?f36, Flavian *Misc. pottery*: beaker H1 (**39**); fabrics **15, 31, 45, 47** and **53**
95 *Misc. pottery*: jar (**53**); fabric **45**
102 *Misc. pottery*: jar G45-type (**44**); fabrics **39, 41, 45,** 47 and **53**
127 *Samian:* SG, f15/17, Neronian *Misc. pottery:* jars Thompson D1-1/Cam 221 (**53**), globular jar (**63**)
151 *Misc. pottery:* jar (**53**); fabrics **45** and **47**

With the exception of some chips of BB2 in context 102, all the pottery was of broad LIA/eR date like that from the preceding Phase II. Contexts 90, 95 and 127 were upper fills and the ditch did not cut any earlier features. ***Reliability:*** 90 nominally a large-sized context, 102 medium-sized, the rest small.

Ditch 190

194 *Samian:* SG, f29, *c.* AD70-85 *Misc. pottery:* platter A2 (**45**); jars Cam 255-type (**50**), ?small Cam 255 (**44**), Cam 256 (**44**), G38-type (**45**), G44 and G45 (**44**), rilled jar cf. Thompson C7-1 (**47**); beakers H1.3/Cam 108-type (**45**), H 1.4-type (**39**), H7-type (**39**); fabrics **53** and **57**
193 *Samian:* SG, f29, *c.* AD75-90 *Misc. pottery:* flagon J3.2 (**26**); pedestal vessel (**45**); fabric **53**
192 *Misc. pottery*: jar G5.5 (**45**), necked jar (**53**); beaker H1.3 (**45**), H- (**39**); fabrics **34** and **50**
191 *Misc. pottery*: jar G5.2 (**50**)

Amongst the LIA/eR material from this feature was a single mid-Roman vessel (the lid-seated jar in context 192). No useful material in bottom fill 248 or in context 195. ***Reliability:*** 192 a medium-sized context, 194 large-sized, the rest small-sized.

Ditch 212

215 *Misc. pottery*: fabrics **50, 53** and **87**
214 *Misc. pottery*: jars Cam 254 (**50**), Thompson C7-1 (**53**) and D2-1/Cam 218B (**53**)

A Late Iron Age group, including an Italian Dressel 1 amphora bodysherd, kindly identified by Paul Sealey. Noticeably earlier in relative date than the fills of F221, which is supposed to be the same feature. ***Reliability:*** 214 a medium-sized context, 215 small-sized.

Ditch 221

222 *Samian*: SG, f18, Flavian *Misc. pottery*: dish B4.2 (**41**); bowl C1 (**39**); jars G19.4 (**34**), G20-type (**45**), G21 (**39**), G23/24 (**45**), G- (**50**), Cam 259 (**53**); beaker H1 (**34**)

Amongst the large amount of LIA/eR material was a burnt BB2 dish rim of mid Roman date. ***Reliability:*** large-sized context.

Disuse of Phase IV features (3rd field system; ring ditches):
mid Roman: F119 (most); F156; F160; F236 (most); F478; ?F6; ?F258; ?F275; ?F306; F428; ?F445
Late Roman: ?F117; ?F119; ?F228; ?F264; ?F271; ?F283; ?F405; ?F439
Saxon?: F236 (final); F306 (final); F405 (final); F439 (final); F463

Pit 119

120 *Coin:* House of Constantine *Misc. pottery*: dishes B2 (**45**), B2/B4 (**47**); bowls C2 (**32**), C8.1 (**4**), C8 (**4**), C16 (**45**); jars G5.5 (**47**), G44-type (**44**), G- (**39**); lid K6 (**45**); fabrics **15** (?Hadham) and **55**

The latest pottery (the Hadham ware) in context 120 accords with the coin; the rest is mid Roman (joining with sherds in context 121 below it). Bottom fill 126 contained only residual LIA/eR pottery (including a fabric 45 base trimmed into a disc, diameter 80 mm), as did context 122. There was no useful material in contexts 124 and 125. ***Reliability:*** 120 a large-sized context, 121 medium-sized, the rest small-sized.

Ditch/gully 160

161 *Samian*: f31, CG, Antonine
208 *Misc. pottery*: dish B2.1 (**39**)

Mid Roman, second-early third century pottery, though not many diagnostic sherds. There was a C2 brooch , but no useful pottery, in context 173. ***Reliability:*** all small-sized contexts.

Pit 156

158 *Misc. pottery*: bowl C4.2 (**45**) – the E. Herts/W. Essex bowl form with decoration on the downswept flange, e.g. VER 2383/2384 (Wilson 1984, fig 100) – jars G5.5 (**47**), G21-type – distorted, ?a second – (**47**), G- (**39, 45**); fabrics **1, 32, 40** and **55**

This feature, which cut F160 above, contained a reasonable group of mid Roman pottery. ***Reliability:*** large-sized context.

Ditch/gully 236

238 *Early Medieval pottery*; *Saxon pottery* (identified by Susan Tyler) *Samian:* CG, f33, Antonine (early or mid); CG, f37, Antonine *Misc. pottery:* dishes B4.2 (**42**), B2.3 (**47**); jars G9-type (**39**), G23/24 (**47**)

A mixed bag. Nothing definitely later than mid Roman, then one Saxon and one Medieval sherd. ***Reliability:*** medium-sized context.

Recut 478 of ditch 480

479 *Misc. pottery*: jar G9 (**45**), G24 (**47**); beaker H20.3 (**1**)

The latest pottery was mid Roman. ***Reliability:*** medium-sized context.

Disuse of Phase V features (ditches and pits):
Late Roman or later: F110; F432
Latest Roman: F2; F312; F392; F421; ?F292

Saxon: F2

Ditch 2

4 *Saxon pottery* (identified by Susan Tyler) *Misc. pottery*: dishes B1 (**45**), ?B2 (**39**); B4 (**47**); bowl C8 (**4**); jars G40-type (**36**), necked jar (**39**); fabric **51**

The Saxon bodysherd was accompanied by a small amount of Late/Latest Roman pottery.

Pit complex 312

313 *Misc. pottery*: dishes B6 (**36,** 47); bowl-jars E2-type (**45**), E- (**36**); jars G- (**39,** 47); fabrics **2** (thick white), **3, 4** and **51**

Component 346

347 *Misc. pottery*: dish B6 (**47**)

Component 373

374 *Misc. pottery*: beaker base (**47**)

Component 376
377 *Misc. pottery*: fabric **4**

Component 425
426 *Misc. pottery*: fabric **14**

The Latest Roman date of the pottery in context 313 is echoed by the other components of this group, notably context 347, except for F380. ***Reliability***: 313 a medium-sized context, the rest small-sized.

Pit 392
420 *Misc. pottery:* dishes B1 (**39, 47**), B10.3 (**4**); jar G27.2 (**51**), G- (**39, 47**); fabrics **2** and **3**

There was no good pottery dating evidence from the feature itself. However, finds group 420, from a box-section through this feature and two others, produced Latest Roman pottery. ***Reliability***: large-sized context

Pit complex 421
424 *Misc. pottery:* dishes B1 (**39**), B2 (**42**), B4 (**45**), B6 (**39**); jars G23-type (**47**), G42-type (**44**), G- new form/Col 207-type (**14**); G- new form (**44**), G- (**36, 39, 45**); beaker H-(**2**); fabrics **4** and **51**
423 *Coins:* Licinius and two other C4 *Misc. pottery*: dishes B1 (**35, 47**), B2-type (**4**), small B6 (**39**), B6 (**45, 47**), B6.2 (**47**), ?B10 (**4**); bowls C8 (**3**), ?C8 (**4, 21**); mortarium D6-type (**4**); bowl-jar E3-type (**35**), E6.1 (**4**), E9.1 (**4**) [necked bowl-jar with out-turned rim and pronounced shoulder at the base of the neck, e.g. Going and Ford 1988, fig 55.37], E- (**47**); jars G23-type (**39, 47**), G24-type (**47**), G49 (**4**) [bifid-rim, necked jar], G49-type (**45**), G- new form (**36**), G- (**4**); flagons J11 (**4**), J14 (**4**)[face-mask flagon]; fabrics **25** and **51**

An excellent Latest Roman, late fourth century+, group (quantified below). Samian accounts for the bulk of the residual pottery. ***Reliability***: both large-sized contexts.

A distinctively-tempered ?Iron Age sherd,
by I C Freestone and M S Humphrey (1994, revised 1996)
A sherd from context 230 (F228, Phase IV) was observed in the hand specimen to contain unusual coarse, vesicular inclusions. It was speculated that these might be metal-working slag and the material was examined by thin-section microscopy and in the scanning electron microscope (sherd reference BMRL 47627X: full report in site archive).

Thin-section examination A slice of the sherd was prepared as a thin section and examined in the petrological microscope. The fabric consists of a brown anisotropic fired clay, with common fine subangular quartzose sand, grading into coarse silt and with sparse flakes of white mica (typically 0.03 to 0.11mm long). Angular fragments of a pale vesicular glass, from 0.15 to 2mm diameter, are common. Some of the glass fragments contain rounded grains of relict quartz and/or a network of fine acicular crystals which have crystallised from the melt. In addition to the glass inclusions, sparse elongate voids (up to 1.5mm in length) contain traces of charred vegetal material.

Scanning electron microscopy Two fragments of glass were broken out of the sherd, mounted in an epoxy resin block, polished with diamond paste and examined in the scanning electron microscope (SEM). The glass inclusions are seen to be highly vesicular and the crystals that were observed in thin section are rich in silica. Analysis with the energy dispersive X-ray detector attached to the SEM showed that the inclusions are characterised in particular by high lime (CaO), potash (K_2O) and phosphate (P_2O_5). No elements that might have been anticipated from metallurgical activities, such as copper, zinc or lead, were detected (detection limit approximately 0.2%). Iron oxide (FeO) is at levels typical for clays, soils etc., but is considerably lower than is to be expected in a metallurgical slag.

Discussion The absence of any diagnostic metallic elements suggests that the glassy particles **do not** represent a metallurgical slag. Rather, high potash, lime and phosphate are typical of the ashes derived from burning wood or other vegetal material (Thorpe and Whiteley 1937). It appears that the slag particles represent what is commonly known as 'fuel ash slag'; the result of a reaction in a hearth, kiln or conflagration, between the ash from the burning wood and soil, clay or ceramic materials (Biek and Bayley 1979). In the present case the phosphate contents are very high indeed; the molar Ca/P ratios are close to those of bone apatite (Ca/P = 1.67). This raises the possibility that bone may have been involved in the production of the slag. However, the elevated potash (K_2O) and also the rather high manganese oxide (MnO) are also indicators of plant ash, suggesting that the lime and phosphate were also derived from such a source.
Later Iron Age pottery in south-eastern Britain is commonly tempered with a crushed ceramic material (termed 'grog') which may be observed, often along with vegetal matter, in the fabric. It is frequently implied that this 'grog' represents crushed pottery vessels, but little evidence has been put forward to support this view. The presence of crushed fuel ash slag with vegetal matter in the present sherd suggests an alternative model. A grog-like temper may have been produced by deliberately firing lumps of clay and then crushing them. On occasion, particularly when the temperature of the fire was relatively high, these clay lumps would have reacted with the fuel ash to produce a slag. This could still be used as a tempering material, as appears to be the case here. Such deliberate production of a grog-like temper is known ethnographically and has been postulated for prehistoric ceramics from south-east Asia (e.g. Vincent 1991).

The samian
(from notes by W J Rodwell, 1994)
There was South Gaulish (Flavian and Trajanic) samian in Phase II and III contexts (with some later material in upper fills), Antonine Central Gaulish samian in Phase IV contexts and residual samian in contexts as late as the later fourth-century pit complex 421.

Form	*Source*	*Date*	*Count*	*Weight*	[Context]
		Phase II			
-	CG	2nd cent.	2	1	[67]
f37	SG	*c.* AD75-95	1	7	[70]
f15/17 or 18	SG	*c.* AD70-90	1	28	[72]
f15/17 or 18	SG	*c.* AD80-110	1	42.5	[72]
f33	CG	Antonine	3	25	[113]
?f46 or 33	CG	Antonine	4	7	[141]
f36	SG	later Flavian	1	4	[197]

Form	*Source*	*Date*	*Count*	*Weight*	[Context]
		Phase III			
?f36	SG	Flavian	1	15.5	[90]
f15/17	SG	Neronian	1	36	[127]
f29	SG	*c.* AD75-90	1	1.5	[193]
f29	SG	*c.* AD70-85	2	14.5	[194]
f18	SG	late Flavian or Trajanic	1	1	[201]
f18	SG	Flavian	1	1.5	[222]
		Phase IV			
f18	SG	*c.* AD60-75	1	7	[120]
?f18	SG	Flavian	1	2.5	[120]
f18	SG	late Flavian or Trajanic	1	10	[120]
f36	SG	Flavian	1	6.5	[161]
f31	CG	Antonine	1	13.5	[161
-	CG	2nd cent.	2	4.5	[172]
-	SG	Flavian	1	1	[175]
f18/31	CG	Trajanic-Hadrianic	1	12.5	[175]
?f42	CG	?Trajanic	1	28	[175]
f18/31R or 31R	CG	Antonine	1	2.5	[175]
footring	CG	?first half 2nd cent	2	10.5	[202]
f37	CG	Antonine	1	4	[238]
f33	CG	Antonine	2	10.5	[238]
-	CG	early 2nd cent	1	2.5	[238]
-	CG	2nd cent	1	2	[270]
f33	CG	Antonine	1	11	[284]
f79	CG	Late Antonine	13	122.5	[288]
f15/17	SG	*c.* AD60-75	1	0.5	[307]
f18 or 18R	SG	Flavian	3	2	[440]
f35	SG	late Flavian-Trajanic	1	5	[446]
-	SG	-	1	2	[446]
		Phase V			
f18	SG	*c.* AD70-90	1	2.5	[4]
f24/25	SG	pre-Flavian	2	2	[134]
-	SG	?pre-Flavian	1	1	[138]
f18	SG	Flavian	1	1.5	[420]
?f37	SG	Flavian-Trajanic	1	5	[420]
-	SG	-	1	1	[420]
f15/17 or 18	SG	Flavian	1	4	[423]
-	SG	1st cent	1	2.5	[423]
(enclosed vessel)	CG	?early 2nd cent	1	1	[423]
f33	CG	later Antonine	3	11.5	[424]
f38	CG	later Antonine	1	30	[424]
?f33	EG	later Antonine	1	2.5	[424]
-	?	-	1	1	[424]
f31	CG	Antonine	2	18.5	[426]
f37R	CG	?Hadrianic	1	7	[426]
-	CG	later 2nd cent	1	3.5	[426]
		unstratified			
f31	CG	later Antonine	1	7	[401]
f31	EG, burnt	Antonine	1	13.5	[401]
?f27	SG	Neronian	1	1	[468]
f37	CG	Antonine	1	189.5	[500]

The piece in context 127 has kiln grit inside, from stacking; that is to say, it was unworn when broken.

Decorated samian, by W J Rodwell (1994)
f37, South Gaulish. Common ovolo type with rosette-ended tongue; wavy line below. Good, crisp condition. *c.* AD75-95 (context 70, [F92, Phase II]).
f29, South Gaulish. Fragment of upper zone, showing a spiral scroll adjacent to a single-bordered medallion containing a tiny hare (figure type not identifiable). Later Flavian, *c.* AD75-90 (context 193, [F190, Phase III]).
f29, South Gaulish. Panelled upper zone: one panel filled with arrows, divided from the next by three wavy lines; second panel contains a winged griffin to left (akin to O.882A). Another tiny fragment, showing a running scroll, is probably from the lower zone of the same bowl. *c.* AD70-85 (context 194, [F190, Phase III]).
f37, Central Gaulish. Antonine (context 238, [F236, Phase IV]).
probably f37, South Gaulish. Flavian-Trajanic (context 420, [associated with F392, Phase V]).
f37R, Central Gaulish. Probably Hadrianic (context 426, [F425, Phase V]).
f37, Central Gaulish. A single sherd comprising (well-worn) base and complete profile of decoration of a medium-sized freestyle bowl. Typical Lezoux ware in the *Cinnamus* style, depicting a large stag, pursued by a large lion, and accompanied by a small dog and bear(?), all running to the left. Numerous buds or leaf tips in the field. The ovolo is *Cinnamus* style no. 3 (Stanfield and Simpson 1958, fig 47). On the underside of the base are faint traces of a cursive mould signature, almost obliterated when the footring was applied. With the eye of faith the signature could be read as [C]INN[, the letters 'N' being ligatured. Mould signatures of *Cinnamus* are not uncommon. Antonine, *c.* AD150-180 (context 500, unstratified).

The Late Iron Age and early Roman pottery
This is presented as groups of associated vessels, to make up an illustrated summary of the range of forms from the site. The two largest groups, ditch F92 and ditch F186, had dating problems (which do not affect the associations recorded here) and are therefore not suitable for quantification.
The illustrated material fills a gap in the relative sequence already published or in the process of publication from the region: earlier Late Iron Age from Stansted site ACS, Late Iron Age to early Roman cremations and two groups from Stansted site DCS/DFS, mid Roman cremations (Wickenden 1988, 12-23) and a mid Roman group from Great Dunmow (Going and Ford 1988, 61-66).

Late Iron Age
context 3, pit 1
cups Thompson E1-3 (two of) **(53)**; wide-mouthed bowl G2-3 **(53)**; necked jar B1-1 **(53)**; jar or barrel-shaped butt-beaker **(53)**; platter **(53)**; lid **(53)**; storage jar **(53)**; beaker Going H7 **(34)**

context 5, pit 1
platter G1-9 **(53)**

context 169, ditch 92
jars Thompson B2-1/ Cam 229 **(53)**, B2-2/2-3 **(53)**

context 116, ditch 92
jars Thompson B1-1 **(53)**, ?C2-3 **(53)**, ?Cam 254 **(50)**

context 87, ditch 92
jar Going G3/Cam 256 **(50)**

context 91, ditch 92
jar Cam 229/Thompson B2-1 **(53)**

context 73, ditch 92
jar Cam 259/Thompson C1-2 **(53)**

context 162, pit 165
platter Thompson G1-1/Cam 21 **(53)**; jars including. D2-1/Cam 218 **(53)**

context 180, ditch 179
trumpet pedestal urn base, Thompson A5 **(53)**; cups E1-1/Cam 212 **(53)**, E1-2/Cam 211 **(53)**, plus two others similar; jar/large butt-beaker **(53)**

context 159, ditch 186
jar Thompson C6-1 **(53)**

context 146, recut 187 of ditch 186
platters Cam 8 **(63)**, Cam 26/Thompson G1-7 **(53)**; jars including. B1-1 **(53)**; butt-beaker Cam 113, two of **(69)**; lid **(53)**

context 145, final recut 189 of ditch 186
cup Cam 56 **(62)**; jar **(53)**; beakers Cam 91 **(62)**, butt-beaker **(68)**, Thompson G3-4/Cam 92-type **(53)**; lid **(53)**

context 207, ditch 205
jar Cam 254 **(50)**

context 204, pit 220
jars Thompson C6-1 **(53)**, Cam 254-type **(50)**

context 214, ditch 212
jars Cam 254 **(50)**, Thompson C7-1 **(53)** and D2-1/Cam 218B **(53)**

context 242, pit 241
jar G5.1-type **(50)**

Late Iron Age/early Roman
context 102, ditch 89
jar G45-type **(44)**

context 127, ditch 89
[*Samian:* SG, f15/17, Neronian]
Thompson D1-1/Cam 221 **(53)**, globular jar **(63)**

context 72, ditch 92
[*Samian*: SG f15/17 or 18 (two of), *c.* AD80-110 and *c.* AD70-90 respectively]
platter Cam 31-type?Thompson G1-11 **(53)**; cup Thompson E1-4 **(53)**; jars Thompson C6-1 **(53)**, D2-5-type **(53)**, ?Cam 254 **(50)**, ?G20 **(36)**,; flagons J 3.2-type **(31)**, J3.4-type **(31)**

context 70, ditch 92
[*Samian:* SG f37, *c.* AD75-95]
platters Cam 16B or 30 **(53)**, A2/Cam 24C **(45)**; dish B6 **(47)**; cup Cam 56 **(63)**, Thompson E1-3 **(53)**; jars Thompson C3, C7-1 and C8-1 (three of) **(53)**, ?G20 **(36)**, G- **(45)**; beakers H1 **(39)**, H7-type **(45)** and Thompson G5 **(53)**

context 197, ditch 92
[*Samian*: SG f36, later Flavian]
jar G18-type **(45)**

context 67, ditch 92
jars G5.1 **(50)**, Cam 254 **(50)**, Cam 230/Thompson D1-4 **(53)**, G- **(39, 45, 47)**

context 142, final recut 189 of ditch 186
cup Cam 56, stamped **(63)**; jars **(53)**, G19 **(39)**; butt-beaker **(68)**

context 141, final recut 189 of ditch 186
platter A1 **(34)**; bowl bead-rimmed **(53)**; **jars** Cam 254 **(50)**, ?G19 **(45)**

context 194, ditch 190
[*Samian:* SG, f29, cAD70-85]
platter A2 **(45)**; jars Cam 255-type **(50)**, ?small Cam 255 **(44)**, Cam 256 **(44)**, G38-type **(45)**, G44 and G45 **(44)**, rilled jar cf. Thompson C7-1 **(47)**; beakers H1.3/Cam 108-type **(45)**, H 1.4-type **(39)**, H7-type **(39)**

context 193, ditch 190
[*Samian:* SG, f29, *c.* AD75-90]
flagon J3.2 **(26)**; pedestal vessel **(45)**

context 191, ditch 190
jar G5.2 **(50)**

context 222, ditch 221

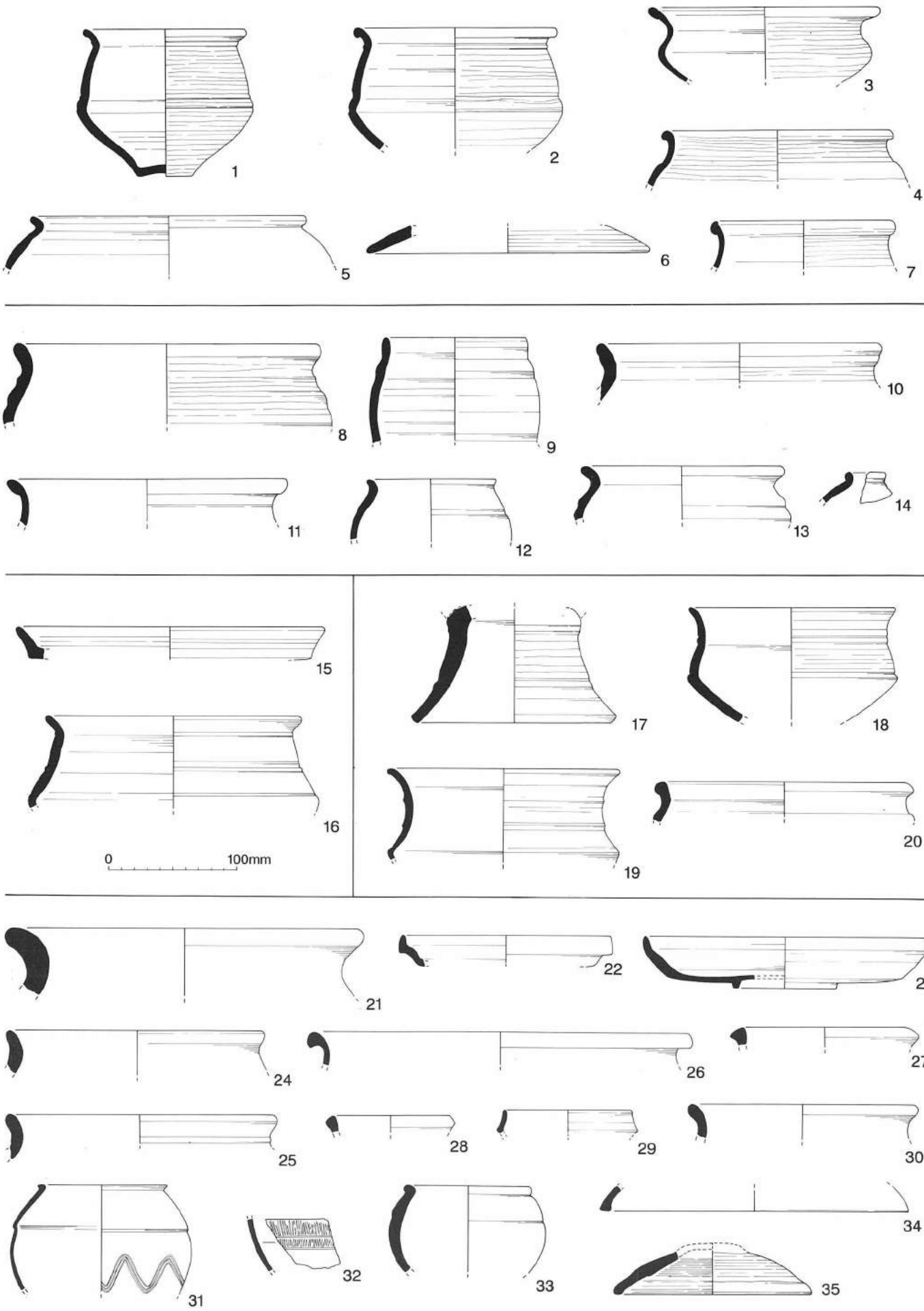


Fig. 19 Buildings Farm, Great Dunmow 1993. Late Iron Age/early Roman pottery.

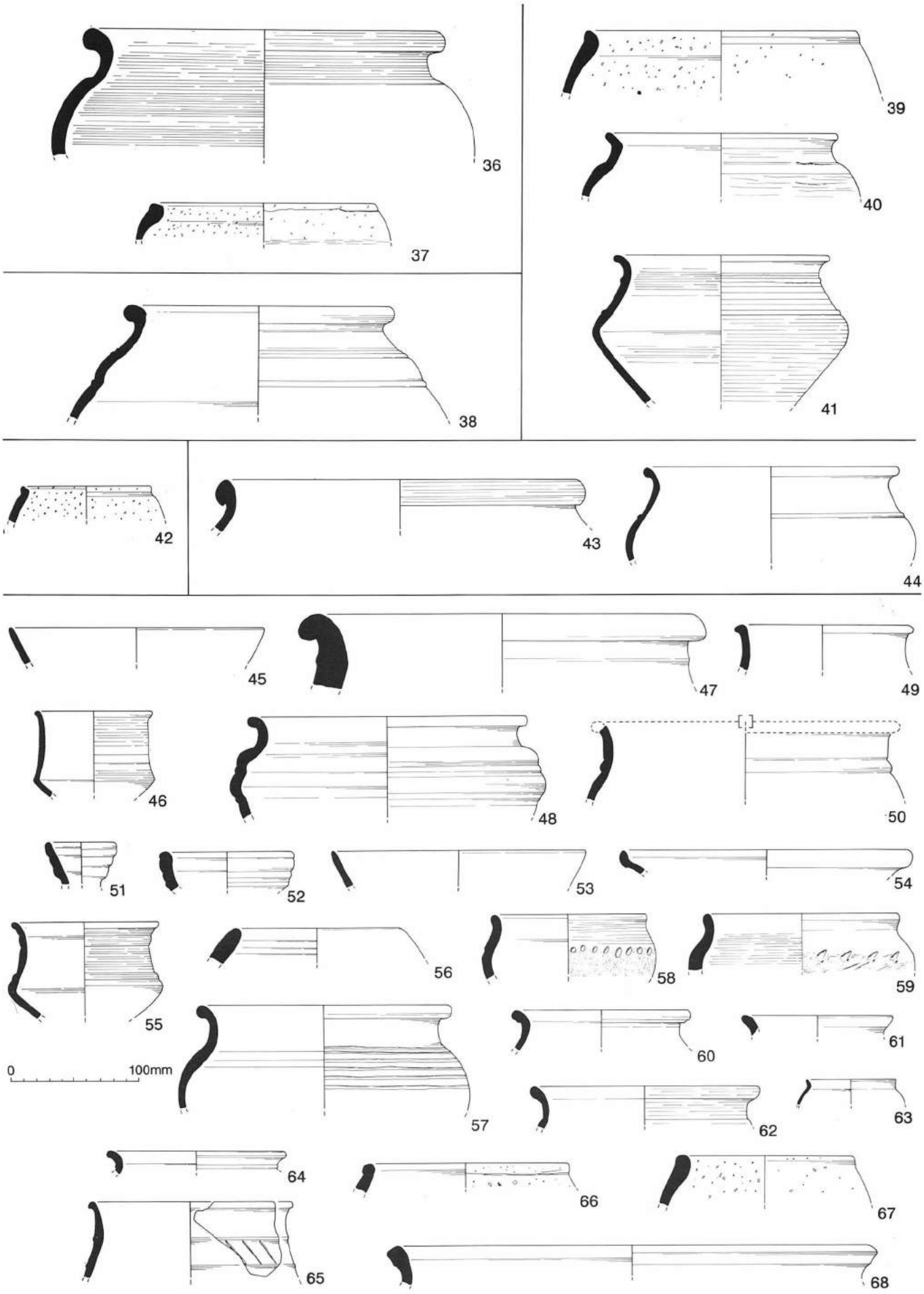


Fig. 20 Buildings Farm, Great Dunmow 1993. Late Iron Age/early Roman pottery.

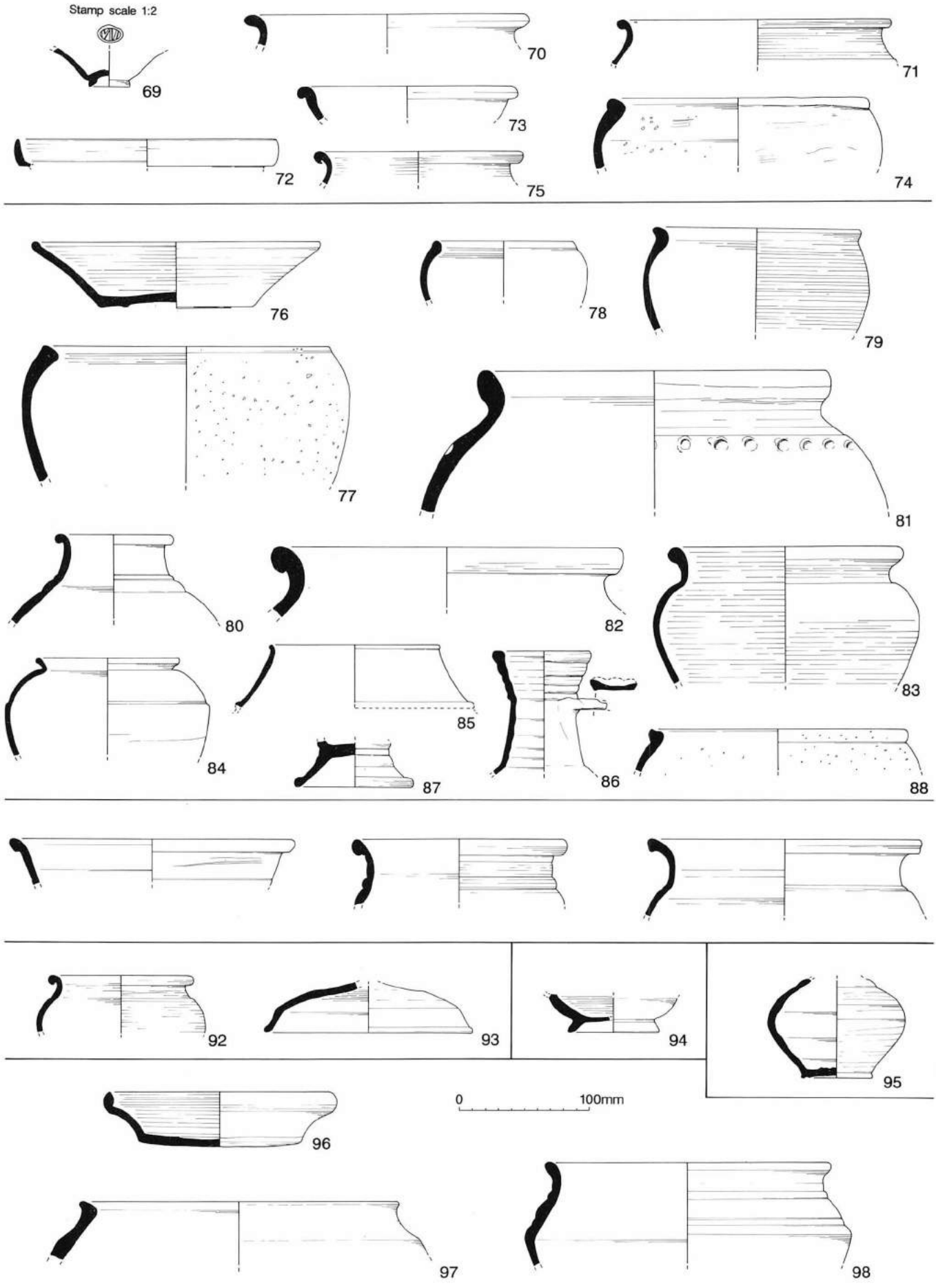


Fig. 21 Buildings Farm, Great Dunmow 1993. Late Iron Age/early Roman pottery.

[*Samian*: SG, f18, Flavian]
bowl C1 (**39**); jars G19.4 (**34**), G20-type (**45**), G21 (**39**), G- (**50**), Cam 259 (**53**); beaker H1 (**34**)

context 328, ditch 330
jar G20 (**45**) – small, ?bowl-jar version; lid, cf. Thompson L2 (**53**)

context 338, gully 338
a cup, possibly a Dr27 copy, trimmed down to the lower half of the vessel (**36**)

context 457, ditch 456
flask/bottle, Cam 234/235-type (**45**)

Pottery from later or unstratified contexts

Finally, there are two good vessels from other contexts (one Phase V and the other unstratified; nos. 96 and 98) and a third, unusual, piece from cleaning. This last (no. 97) is a shouldered vessel with an internally-thickened rim, possibly a variant of the *Cam* 253/Thompson D3-3 lidded barrel-shaped bowls. It also has some similarities to high-shouldered jars (eg Skeleton Green: Partridge 1981, fig 41.13), including Usk Type 13 (Greene 1993, 26-33) which was one of the only two forms there with Gaulish, rather than Lower Rhineland, parallels. It is in a soft, wheelthrown grog-tempered fabric with a distinctive appearance in fracture (compared to the normal fabric 53): brown surfaces and orange margins, dark brown core (context 468).

Catalogue of illustrated vessels (Figs 19-21)

cat. number	context	fabric	form/description
1	3	53	cup, Thompson E1-3
2	3	53	cup, E1-3
3	3	53	wide-mouthed bowl, G2-3
4	3	53	necked jar, B1-1
5	3	53	jar/barrel-shaped butt-beaker
6	3	53	lid
7	3	34	beaker, Going H7
8	169	53	jar, Thompson B2-1/Cam 229
9	169	53	jar, B2-2/B2-3
10	169	53	jar
11	116	53	jar, B1-1
12	116	53	jar, ?C2-3
13	91	53	jar, Cam 229/Thompson B2-1
14	73	53	jar, Cam 259/C1-2
15	162	53	platter, Cam 21/G1-1
16	162	53	bowl-jar, Cam 218/D2-1
17	180	53	trumpet pedestal urn (base), A5
18	180	53	cup, Cam 212/ Thompson E1-1
19	180	53	cup, Cam 211/E1-2
20	180	53	large butt-beaker
21	159	53	storage jar, Thompson C6-1
22	146	63	platter, Cam 8
23	146	53	platter, Cam 26/Thompson G1-7
24	146	53	jar, Thompson B1-1
25	146	53	jar
26	146	53	jar
27	146	69	butt-beaker, Cam 113
28	146	69	smaller butt-beaker, Cam 113
29	145	62	cup, Cam 56
30	145	53	jar
31	145	62	beaker, Cam 91
32	145	68	butt-beaker
33	145	53	beaker, Thompson G3-4/Cam 92-type
34	145/146	53	lid
35	145	53	lid
36	204	53	storage jar, Thompson C6-1
37	204	50	jar, Cam 254-type
38	17	53	jar, Thompson B3-1
39	214	50	jar, Cam 254
40	214	53	jar, Thompson C7-1
41	214	53	jar, D2-1/Cam 218B
42	242	50	jar, Going G5.1-type
43	102	44	jar, G45-type
44	127	53	jar, Thompson D1-1/Cam 221
45	72	53	platter, Cam 31-type/Thompson G1-11
46	72	53	cup, Thompson E1-4
47	72	53	storage jar, C6-1
48	72	53	jar, D2-5-type
49	72	53	jar
50	72	36	jar, ?Going G20
51	72	31	flagon, J3.2-type
52	72	31	flagon, J3.4-type
53	70	53	platter, Cam 16B
54	70	45	platter, Going A2/Cam 24C
55	70	53	cup, Thompson E1-3
56	70	53	jar, C3
57	70	53	jar, C7-1
58	70	53	jar, C8-1
59	70	53	jar, C8-1
60	70	53	jar, narrow-mouthed
61	70	53	jar
62	70	36	jar, ?Going G20
63	70	39	beaker, H1
64	70	45	beaker, H7-type
65	197	45	jar, G18-type
66	67	50	jar, G5.1
67	67	50	jar, Cam 254
68	67	53	jar, Cam 230/Thompson D1-4
69	142	63	cup, Cam 56 (stamped)
70	142	53	necked jar
71	142	39	jar, Going G19
72	141	34	platter, A1
73	141	53	bead-rim bowl
74	141	50	jar, Cam 254
75	141	45	jar, ?Going G19
76	194	45	platter, A2
77	194	50	jar, Cam 255-type
78	194	44	jar, small Cam 255-type
79	194	44	jar, Cam 256
80	194	45	jar, Going G38-type
81	194	44	jar, G44
82	194	44	jar, G45
83	194	47	rilled jar, cf Thompson C7-1
84	194	39	beaker, Going H1.4-type
85	194	39	beaker, H7-type
86	193	26	flagon, J3.2
87	193	45	pedestal vessel
88	191	50	jar, G5.2
89	222	39	bowl, C1
90	222	34	jar, G19.4
91	222	45	jar, G20-type
92	328	45	jar, G20 (small, ?bowl-jar version)
93	328	53	lid, cf Thompson L2
94	338	36	cup, possibly a Dr 27 copy, trimmed down for reuse to the lower half of the vessel
95	457	45	flask/bottle, Cam 234/235-type
96	123	?34	platter, Going A2 (without a footring)
97	468	53	shouldered jar
98	500	53	cup, Cam 217/Thompson E2-1

Table 2: quantification of Latest Roman pottery from Pit 421

Ware		*Count*	*Wt (g.)*	*% Wt*	*EVE*	*% EVE*
Nene Valley colour-coat	(2)	6	63	1	-	-
Oxfordshire red colour-coat	(3)	5	15.5	0.2	-	-
Hadham red wares	(4)	101	643	10.4	2.14	31.1
Hadham white-slipped wares	(14)	1	42	0.7	(see below)	
Misc. white-slipped wares	(15)	32	173.5	2.8	0.14	2
Misc. oxidised wares	(21)	1	7	0.1	0.06	0.9
Oxfordshire white wares	(25)	1	11.5	0.2	-	-
?Hadham black-surfaced	(35)	8	37.5	0.6	0.08	1.2
Hadham grey wares	(36)	32	339.5	5.5	(see below)	
Fine grey wares	(39)	75	669	10.9	2.11	30.7
Other black-burnished	(42)	4	46.5	0.7	0.13	1.9
Storage jar fabrics	(44)	50	1610.5	26.2	0.25	3.6
Black-surfaced wares	(45)	46	336	5.5	0.07	1
Sandy grey wares	(47)	180	1557	25.3	1.84	26.7
Late shell-tempered ware	(51)	10	84	1.4	-	-
Other colour coats	(7)	4	6.5	0.1	-	-
Misc. buff wares	(31)	6	162.5	2.6	-	-
North Kent grey wares	(32)	2	7	0.1	-	-
Grog-tempered wares	(53)	27	274	4.4	-	-
South Spanish amphoras	(55)	1	2	[too small]	-	-
Samian	(60)	9	52.5	0.8	0.06	0.9
Prehistoric						
—		1	8	0.1	-	-
TOTALS		602	6148		6.88	

The Latest Roman pottery
The group from pit 421 (contexts 423 and 424): late fourth century.

This large Phase V pit in the western part of the site produced some of the largest amounts of Roman pottery. Residual sherds were relatively few, compared to other Phase IV and V contexts. Coupled with a short date-range, these features made pit 421 worth quantifiying. While the weights were re-done in 1996, the EVEs data is from earlier work by Katherine Horsley.

The fabrics and forms
Nene Valley colour-coat (2) Present only as a beaker base.

Oxfordshire red colour-coat (3) Represented by the flange of a C8 bowl.

Hadham red wares (4) The range of forms comprised dishes (B2-type and a possible B10 flange), bowls (C8), a mortarium (D6-type), bowl-jars (including E6.1 and E9.1), jars (including G49 bifid-rim, necked jars, a new form defined at the Stansted Project) and flagons (J11, J14; the latter the classic face-mask flagon)
Hadham white-slipped wares (14) A Col 207-type frilled-rim, narrow-necked pedestal jar; a new form.

Misc. white-slipped wares (15) Probably of Hadham origin too; the EVEs figure above is an amalgamation of fabrics 14 and 15. This grouping included a burnt, coarse mortarium base.
Misc. oxidised wares (21) Here was a coarse ?C8 rim.

Oxfordshire white wares (25) Only a mortarium bodysherd.
?Hadham black-surfaced ware (35) B1 dishes and a bowl-jar rim (E3-type).

Hadham grey wares (36) Among the jar rims was one of a new form, resembling a storage jar

Fine grey wares (39) The EVEs figure listed above is an amalgamation of fabrics 36 and 39. The forms in fabric 39 were dishes (B1, small B6), jars (including G23-type) and part of a flagon (handle and neck or spout).
Other black-burnished (42) The only forms recognised were B2 rim-sherds.

Storage jar fabrics (44) Represented by a large G42 and other G42-type rims, as well as a new form resembling the G37.
Late black-surfaced wares (45) B4 and B6 dishes and jars (including G49-type bifid-rim, necked ones).

Sandy grey wares (47) Sherds from dishes (B1, B6, B6.2), jars (G23-type, G24-type) and possibly a bowl-jar. One of the G23-type jars had an interior residue.
Late shell-tempered ware (51) Represented by bodysherds alone; there was one jar form and no dishes elsewhere in Phase V.
Residual pottery This comprised bodysherds of other colour coats (fabric 7), misc. buff wares (31), North Kent grey wares (32), grog-tempered wares (53), South Spanish amphoras (55), samian (60) and prehistoric pottery.

Discussion
A small group, but one dominated by Hadham finewares as expected from its location. The other distinctive feature, when compared with the late group from the Shrine at Great Dunmow (Going and Ford 1988, 66-71), is the very small amount of late shell-tempered ware (which was 11.9% by weight at Great Dunmow; present also in greater quantities and better condition at Stansted by comparison with Buildings Farm). This cannot be explained on functional grounds, for dishes, bowls and jars were well represented in other wares at Buildings Farm and group 421 was not dominated by finewares at the expense of coarsewares. Late shell-tempered is scarce overall in Phase V, so that the explanation may be chronological; group 421 dating to the very end of Chelmsford ceramic phase 7 (*c.* AD300/310-360/370) rather than the later phase 8 to which the Great Dunmow and Stansted Project groups have been assigned. There are difficulties in deciding how far into the second half of the

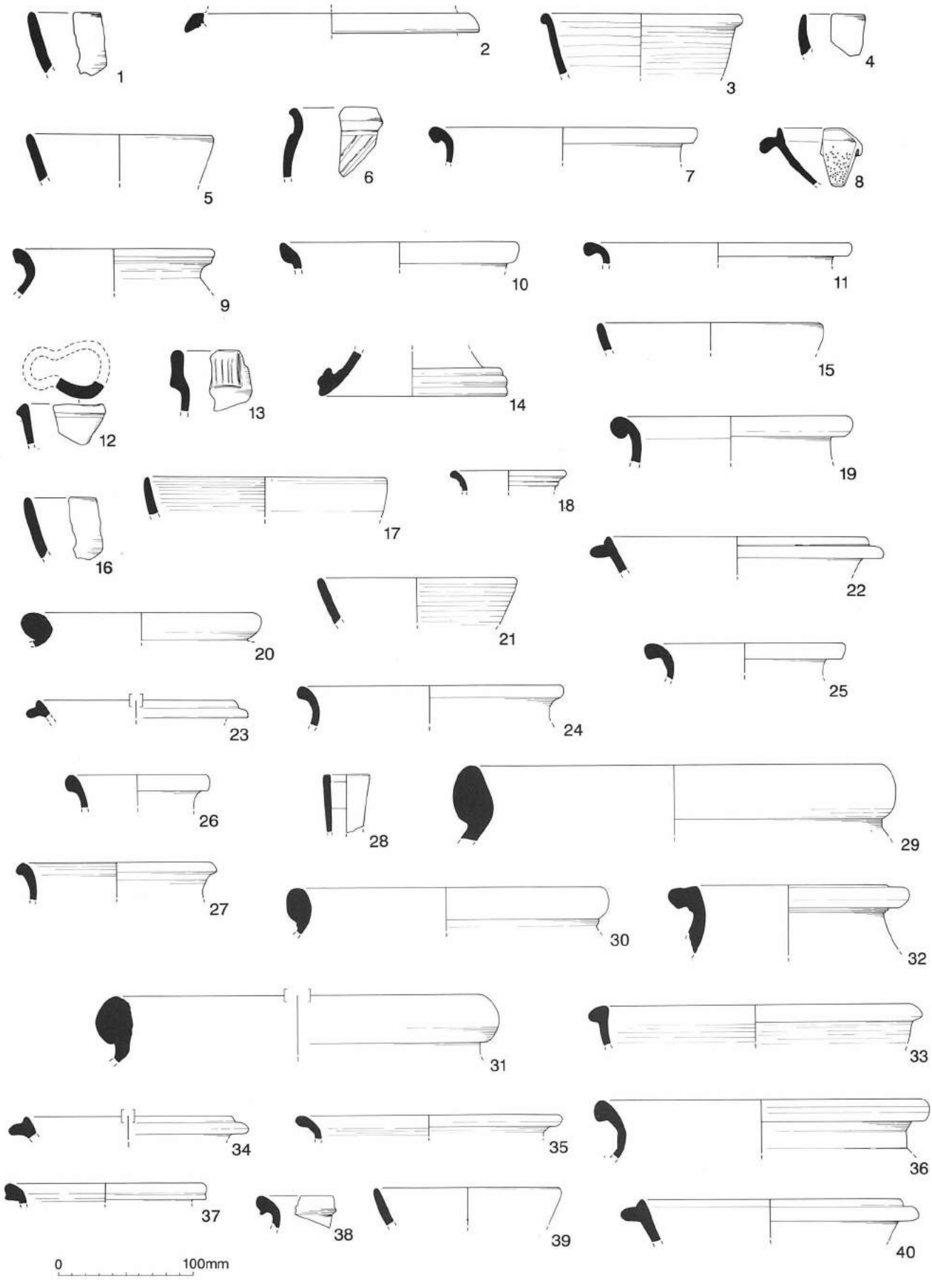


Fig. 22 Buildings Farm, Great Dunmow 1993. Late Roman pottery.

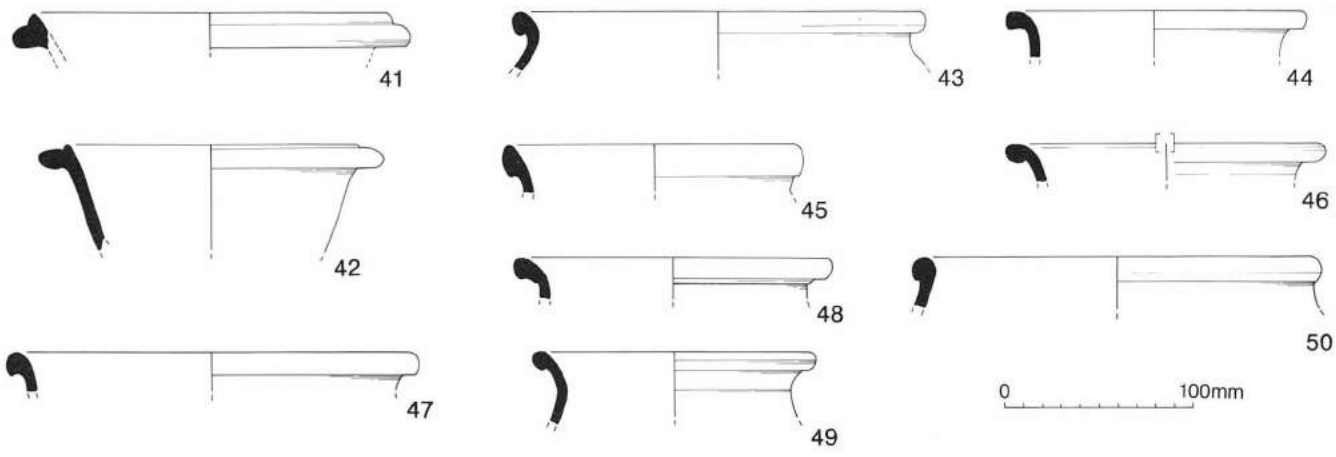


Fig. 23 Buildings Farm, Great Dunmow 1993. Late Roman pottery.

fourth century (let alone beyond) the overall Phase V at Buildings Farm lasted – there are no coins identified as later than the House of Constantine, for example. This cannot be resolved with the evidence we have at present.

Catalogue of illustrated vessels (Figs 22 and 23)

cat. number	context	fabric	form/description
1	424	2	beaker base
2	423	3	C8 flange
3	423	4	B2-type
4	423	4	C8 (or B1) rim
5	423	4	E6.1
6	423	4	E9.1
7	423	4	bowl-jar rim
8	423	4	D6-type
9	423	4	G49
10	423	4	jar
11	423	4	bowl-jar or jar rim
12	423	4	J11
13	423	4	J14 (back of rim)
14	424	14	Col 207-type base
15	423	21	coarse C8 (or B1) rim
16	423	35	B1
17	423	35	B1
18	423	35	E3-type
19	424	36	jar
20	423	36	new jar form
21	424	39	B1
22	424	39	B6
23	423	39	small B6
24	423	39	G23-type
25	423	39	G23-type
26	423	39	jar
27	424	39	jar
28	423	39	flagon
29	424	44	large G42
30	424	44	G42-type
31	424	44	G42-type
32	424	44	new form
33	424	45	B4
34	423	45	B6
35	424	45	jar
36	424	45	necked jar
37	423	45	G49-type
38	423	45	G49-type
39	423	47	B1 (burnt)
40	423	47	B6 (burnt)
41	423	47	B6
42	423	47	B6.2
43	423	47	G23-type
44	424	47	G23-type, with internal residue
45	423	47	G24-type
46	423	47	jar rim (burnt)
47	424	47	jar rim
48	424	47	jar rim
49	424	47	necked jar rim
50	423	47	jar or bowl-jar rim

Conclusions

It was clear that much of the material was residual. At Brancaster in Norfolk, similar problems in dating were encountered on a similar type of site: several phases of enclosures could be distinguished (Hinchliffe 1985, 19-32), but much recutting of the ditches (and the nature of the feature fills themselves) produced groups of second to fourth-century pottery 'best regarded as a single group reflecting the overall period of occupation' (Hinchliffe 1985, 177; cf. Andrews 1985, 72). The crucial difference at Buildings Farm is that the different field systems of Phases II, III and IV provide here the chance to divide the pottery into broad phases rather than treat it as a single group, for while early material persists on into late groups, its condition is always poor after Phase II/III. Thus a more optimistic approach is justified.

The end of the LIA/eR date-range overlaps with the earliest stratified material from the 1970-72 excavations in Great Dunmow itself (Wickenden 1988, 8). Late Iron Age material is not (so far) known from the site of the Roman settlement, with the exception of a coin of Cunobelin (Going 1988a, 84). He records Late Iron Age pottery from three villa sites east of Great Dunmow and finds of Italian wine amphoras some distance to the north and south-west (1988b, 86). The Late Iron Age sites excavated during the Stansted Project lie about 10km to the west.

Intensive activity (long-lived boundaries, gravel pits, pits and a cremation cemetery) in the Great Dunmow settlement dates from about the early second century onwards. At both Buildings Farm and the 1970-72 site there is evidence of occupation through to the end of the Roman period and beyond (though there is far more early and middle Saxon pottery at the latter site).

Discussing pottery supply to the site is difficult when there are so few good groups; the Buildings Farm material is simply not suitable for this particular task, or for discussing the site's status and its relation-

ship to nearby Great Dunmow, because of the high level of residuality. Instead it can shed some light on deposit formation: the average sherd size of the residual material increases from 6.6g in Phase II (and 6.3g in III) to 10.6 g and 19.2 g in Phases IV and V respectively. This is presumably because the Phase IV and V activity disturbs contexts containing the relatively chunky grog-tempered sherds. Certainly, residual pottery accounts for a significant % by weight of these two phases (see below).

Phase II: Late Iron Age/early Roman

Note that % weight entries marked * in all these Phase summaries denote those accounting for less than 0.1 %.

Ware		Count	Weight	% weight	Forms
Colchester colour-coat	(1)	1	1	*	
Nene Valley colour-coat	(2)	2	8	*	
Hadham oxidised wares	(4)	3	22.5	0.1	
Misc. white-slipped wares	(15)	5	19.5	0.1	
Misc. oxidised wares	(21)	14	36.5	0.2	
Verulamium Region wares	(26)	5	10.5	*	
Misc. buff wares	(31)	5	80	0.5	J3.2; J3.4
London-type wares	(33)	1	5	*	Marsh 31
Fine romanising wares	(34)	5	6	*	A1-type; H7
Hadham grey wares	(36)	33	265.5	1.8	jars inc. G20 & G21; F-
Fine grey wares	(39)	42	232	1.6	jars inc. G19; carinated vessel; H1
BB2	(41)	2	19	0.1	
Other black-burnished	(42)	1	5	*	
Storage jar fabrics	(44)	16	223	1.5	
Romanising wares	(45)	64	639.5	4.3	A2; jars inc. G18-type; Cam 234/235; H7
Sandy grey wares	(47)	94	762	5.2	jars
Early shell-tempered wares	(50)	59	651	4.4	Cam 254, G5.1 & G3/Cam 256
Grog-tempered wares	(53)	737	11007	74.7	Thompson forms A5; B1-1, B2-1, B2-2/2-3; C1-1, C1-2, C3, C6-1, C7-1, C8-1; D2-1, D2-5; G1-1, G1-3, G1-7, G1-9, G2-3, G3-4; E1-1, E1-2, E1-3, E1-4; lids inc. L6
[Storage jar rims and bodysherds account for 21 % by weight of this ware group]					
Samian	(60)	13	114.5	0.8	[see Part 3]
[South Gaulish accounts for 71% by weight]					
Terra Rubra	(62)	12	59	0.4	Cam 91 and 96
Terra Nigra	(63)	8	62	0.4	Cam 8 and 56
'Silty Wares'	(68)	31	72	0.5	butt-beaker
White Fine Sandy	(69)	2	15.5	0.1	Cam 113
Misc. white wares	(73)	2	17.5	0.1	?beaker
Earlier, prehistoric sherds		45	296.5	2	
Misc. unidentified	(89)	4	43	0.3	
TOTALS		1206	14733		

Phase III contexts: Late Iron Age/early Roman

Ware	Count	Weight	% weight	Forms	
Misc. white-slipped wares	(15)	18	55.5	0.4	
Misc. oxidised wares	(21)	1	0.5	*	
Verulamium Region wares	(26)	3	200	1.6	J3.2
Misc. buff wares	(31)	117	144.5	1.2	
Fine romanising wares	(34)	62	295	2.4	G19.4; H1
Fine grey wares	(39)	73	499.5	4	C1-type; G21; H1; H7
BB2	(41)	3	18	0.1	B4.2
Storage jar fabrics	(44)	110	2667.5	21.6	G44, G45; Cam 256 & small Cam 255
Romanising wares	(45)	429	3098	25.1	A2; jars inc. G20-type, G38-type; H1.3/Cam 108; pedestal vessel
Sandy grey wares	(47)	144	1486	12	jars inc. Thompson C7-1 type
Early shell-tempered wares	(50)	63	930.5	7.5	G5.2, Cam 254, 255-type
Grog-tempered wares	(53)	292	2661	21.5	Thompson B3-1, B5/Cam 249-type; C7-1; D1-1, D2-1
[Storage jar rims and bodysherds account for 23% by weight of this ware group]					
Early Roman amphoras	(57)	1	64.5	0.5	
Samian	(60)				
[all South Gaulish]		6	69.5	0.5	
Terra Nigra	(63)	2	2	*	cf. Holwerda Type 30
White Fine	(70)	1	41	0.3	Cam 161
Italian amphoras	(87)	1	78	0.6	Dr 1 sp.
Earlier, prehistoric sherds		6	37.5	0.3	
TOTALS		1332	12348.5		

As the dating-evidence sections make clear, there was some later material in Phase II and Phase III contexts, which therefore crop up in the summaries above. This is the explanation for the very small amounts of fabrics 1, 2, 4 and 41/42 in these phases, for example. The Phase II fabrics 36 and 45 and Phase III fabric 45 totals include some later material.

Some feature-fills were dominated by Late Iron Age grog-tempered wares (e.g. Phase II pit F1), but most of the other contexts of this broad date-range also contained South Gaulish samian and slightly later coarsewares (fabrics 36, 39, 45 and 47 especially) as well as grog-tempered; the condition of the latter did not usually suggest that it was residual. Because it was rarely possible to make a firm distinction between purely LIA and purely early Roman on this site in Phase terms (see the discussion of the material from ditch F92 of Phase II, above), a broad date-label has been adopted. Similar forms and fabrics occurred, in similar relative proportions, in two groups (one of Late Iron Age and the other of early Roman date) from the Stansted Project (Wallace, in Brooks and Havis in prep). The residual material in later phases reflects the most intensive period of earlier activity: Table 3 shows this to be the LIA/eR period.

Freestone and Humphrey conclude, above, that the vesicular inclusions visible in the ?Iron Age sherd from a Phase IV context are a fuel ash slag and do not necessarily indicate metallurgical activity. These inclusions may, however, represent evidence of a practice where a grog-like temper was produced by firing clay specifically for this purpose, rather than crushing old potsherds. As the context was not a good LIA group, and the fabric was not recognised elsewhere on the site, the analysis has not been immediately useful. However, it is set out above in the hope that other, better-dated instances of this sort of inclusion will be recognised.

The regional context for the Phase II/III pottery is of some interest. The site has produced a small amount of first-century AD imported pottery (Gallo-Belgic Terra Nigra and Terra Rubra, North Gaulish White Fine *lagenae* and White Fine Sandy butt-beakers) amongst a larger amount of local grog-tempered wares and smaller amounts of shell-tempered wares and grog-tempered variants. The associations are significant: a site with a similar date-range at Duckend Farm, Stansted produced ditch-groups without imports and burials with them; there was no such separation at Buildings Farm.

The butt-beaker sherds from Phase II in fabric 68 are representative of a class of regional Romanised pottery, made using introduced techniques of clay preparation, pottery making and firing rather than Late Iron Age ones; first recognised in Herts., Beds. and Northants. (e.g. Stead and Rigby 1989, 192-97), it is now being recorded in Essex (e.g. Horsley, in Medlycott 1994, 40-41; examples also from the Stansted Project).

The imported wares found, when compared with the overall picture for Essex, include both the commonest sort (*Cam* 113 butt-beakers) and the next commonest (Gallo-Belgic and North Gaulish white wares), but early wares and forms (e.g. Central Gaulish wares) are absent and amphoras are uncommon (and restricted to Dr 1 and Dr 20 sherds [see Phase I dating evidence for the latter]). We therefore have a site which is later in date than the first-century BC one at the Airport Catering Site, Stansted (where the only imports were Italian amphoras: Williams 1990); which had better access than many to imported drinking vessels but which is less well-furnished (in terms of range and variety) than the next level up (sites like Puckeridge-Braughing, Kelvedon and Heybridge, as Katherine Horsley originally pointed out).

Phase IV contexts: Mid/Late Roman

Ware		Count	Weight	% weight	Forms
Colchester colour-coat	(1)	7	16.5	*	H20.3, mini-H20.2
Nene Valley colour-coat	(2)	1	4	*	H25-type
Hadham oxidised wares	(4)	22	185.5	1	C8.1, ?C8.2, ?small E6
Hadham white-slipped	(14)	1	27.5	0.1	
Misc. white-slipped	(15)	18	187.5	1	
Misc. oxidised wares	(21)	19	80	0.4	
Oxfordshire white wares	(25)	1	25.5	0.1	D14.3
?Hadham black-surfaced	(35)	12	80.5	0.4	B4
Hadham grey wares	(36)	32	195.5	1	E2; jars inc. G21
Fine grey wares	(39)	255	1689.5	8.9	B2.1; C4.2; jars inc. G9-type, G21; H6
BB1	(40)	3	9.5	*	
BB2	(41)	7	51	0.3	B2.3, B4.2
Other black-burnished	(42)	2	33	0.2	B2.3, B4.2
Storage jar fabrics	(44)	223	5442.5	28.8	G42-type, G44
Black-surfaced wares	(45)	295	2129.5	11.3	B2; C4.2, C16; jars inc. G9, G24.2; folded beaker; K6
Sandy grey wares	(47)	403	3403.5	18	B2.3, C16; jars inc. G5.5, G7-type, G21, G24, miniature G9-type
Late shell-tempered	(51)	4	10	*	
South Spanish amphoras	(55)	6	381.5	2	
Samian	(60)	38	260.5	1.4	
Residual pottery (fabrics 53, 19, 31, 32, 34 , 50, 68, 69, 70, 73, 84, 87 and prehistoric)		428	4543	24	
Handmade Germanic wares		10	99.5	0.5	
Medieval		2	10	*	
Post-medieval		2	21	0.1	
TOTALS		1791	18886.5		

Stratigraphically earlier than the Phase V contexts, most of the contexts in this phase can only be fitted into a broad mid-late Roman date band. The overall picture set out above can be compared with that from a late second/early third-century group from Great Dunmow (Going and Ford 1988, 61-6). The residual material in this phase reflects the most intensive period of earlier activity – Late Iron Age/early Roman – and accounts for at least 24% of the total weight, for some of the greyware fabric totals will include residual material.

Phase V contexts: Late/Latest Roman

Ware	Count	Weight	% weight	Forms	
Nene Valley colour-coat	(2)	9	78.5	0.5	beaker
Oxfordshire red c.-coat	(3)	7	27.5	0.2	C8
Hadham oxidised wares	(4)	148	800.5	5.4	B2-type, B10.3; C8; D6-type; E6.1, E9.1; jars inc. G49; J11, J14
Hadham white-slipped	(14)	15	141.5	0.9	Col 207-type
Misc. white-slipped	(15)	35	207	1.4	
Misc. oxidised wares	(21)	19	117	0.8	?C8; ?J-
Oxfordshire white wares	(25)	1	11.5	*	
?Hadham black-surfaced	(35)	10	54.5	0.4	B1; E3-type
Hadham grey wares	(36)	59	543	3.7	B6; E-; jars inc. G40, new form
Fine grey wares	(39)	160	1400.5	9.5	B1, B2, B6; jars inc. G23-type, G40; J-
BB2	(41)	3	22.5	0.1	B1, B2.3
Other black-burnished	(42)	9	73	0.5	B2, B4
Storage jar fabrics	(44)	131	3119.5	21.2	G42-type, new form
Black-surfaced wares	(45)	122	856.5	5.8	B2, B4, B6; E2-type, E3-type; jars inc. G49-type
Sandy grey wares	(47)	324	2895.5	19.7	B1, B6; jars inc. G23-type, G24; ?lid
Late shell-tempered	(51)	20	273.5	1.8	G27.2
Samian	(60)	20	94.5	0.6	[see Part 3]
Residual pottery (fabrics 53, 7, 31, 32, 34, 50, 55 and prehistoric)		204	3922	26.7	
Handmade Germanic wares		1	6.5	*	
Misc. unidentified	(89)	3	43	0.3	
TOTALS		1300	14688		

Context 291 (F292) is not included in this table as it could not be found for re-examination; sherds of Hadham oxidised and late shell-tempered wares were amongst the pottery originally recorded from this context.

This is probably all from 4th-century contexts. By contrast with Phase IV, Hadham wares are present in significant amounts, despite the strong showing of residual material. The regional context for this Phase has been discussed earlier, when the quantified group from F421 was considered. The residual pottery in this phase reflects the most intensive period of earlier activity: Late Iron Age/early Roman. It is noticeable that while some fabrics and forms dated elsewhere in Essex to the **later** 4th century occur at Buildings Farm, there are no coins certainly later than the House of Constantine. I have discussed the problems of coin dating Late Roman contexts elsewhere (Wallace 1993; cf. Reece 1993, 868); they were reflected on by Graham Webster (1977, 321-322), who pointed out that only 1.4% (31 coins out of 2192) of the coinage in the late fourth-century Verulamium Theatre deposit established its date. More than half of the coins were issues of the House of Constantine, perhaps still in circulation (see below).

Preliminary study of the coins accompanying three Latest Roman groups from the Stansted Project has shown them to be of Constantine I (AD 318-324) in one group and of the House of Valentinian (AD 360s/370s), along with a copy of the 350s/360s, in another. From the pottery-evidence, the groups all appear contemporary (Wallace, in Brooks and Havis in prep.).

Ryan's detailed examination of 4th-century coinage in southern Britain (1988, 128-33) allowed him to suggest a long survival for radiates and issues of the AD330s-340s (op cit., 132-33; Fig 5.10). He did not include any sites in Essex, but did take in several to the west and north (op cit., fig 4.1). He commented that the coins of the 330s and 340s 'appear to have formed a major part of the stock for as long as coins continued to be used and deposited' (Ryan 1988, 142). Assemblages, in our region, of actual later date are likely to have only Constantinian *t.p.q.*s on the coin evidence.

The bodysherds of handmade Germanic pottery from the disuse of Phase IV and V features can be compared with the material of early and middle Saxon date from the Chequers Lane site (Wickenden 1988, 45-50) and other sites within the small town. They were accompanied by small-medium amounts of residual LIA/eR (contexts 342 and 464) and mid Roman (context 238) pottery or residual earlier pottery and Late/Latest Roman pottery (contexts 359 and 440). The final context with 'Saxon' pottery (context 4) had much less residual earlier material (really only a small sherd of samian) accompanying its Late/Latest Roman pottery, but the latter was not in sufficiently good condition to make this a candidate for consideration as a 'Final Roman' group, where the two sorts of pottery could have been in contemporary use. Research is in progress on this topic and is not easy to summarise as yet. Certainly it would be impossible to prolong Phase V into the very end of the fourth century without invoking, in Going's terms, 'lag' phase strata containing a very high proportion of residual pottery reflecting the preceding 'log' phase (1992, 96-8).

Saxon pottery

S. Tyler

A small amount of Early Saxon pottery (11 sherds; wt. 108g) was recovered from six stratigraphically late contexts: contexts 4 (6.5g); 238 (10.5g); 342 (32.5g); 359 (19.5g) 440 (3g) and 464 (36g). Fabrics are predominantly shell tempered and sand tempered; the absence of significant quantities of organic temper suggesting a fifth-century date (see Hamerow 1993 for a discussion of the significance of organic temper as a post-fifth century indicator).

Catalogue

Body sherd. Hard black fabric with small quartz-sand, common vegetable voids and sparse chalk. Wt. 6.5g. Context 4.

Body sherd. Hard fabric with common medium to large shell and common small to medium quartz-sand. Core and inner black; outer reddish brown. Wt. 10.5g. Context 238.

Body sherd. Hard fabric with common small and sparse medium to large quartz-sand. Black/brown throughout; outer has sooting. ?From a cooking vessel. Wt. 8g. Context 342.

Body sherd. Hard fabric with buff-brown surfaces and black core. Tempered with small-medium quartz-sand with sparse quartzite inclusions. Outer surface cloth-wiped. Wt. 4g. Context 342.

Body sherd. Hard fabric with small to medium quartz-sand temper. Laminated core: dark grey/reddish orange with buff-brown surfaces. Wt. 10.5g. Context 342.
Body sherd. Hard fabric with common small to medium quartz-sand and sparse large inclusions and sparse small chalk. Wt. 7.5g. Context 359.
Base sherd. hard fabric with common small to medium quartz-sand and common small to medium shell temper. Surfaces reddish-brown. Core black. Wt. 12g. Context 359.
Body sherd. Hard black fabric with common small quartz-sand and sparse small-medium chalk. Wt. 3g. Context 440.
Three body sherds from a cooking vessel. Carbonised food residue on inner. Hard reddish-brown fabric with common to abundant shell temper. Wt. 36g. Context 464.

Discussion
None of the pot is particularly abraded, indeed several body sherds have sooting and carbonised residue on their surfaces. Therefore, although the amount of recovered pot is small, it could be viewed as indicative of Early Saxon settlement on site. The shell temper and chalk inclusions point to a clay source in the north-west of the county where chalk bedrock occurs.

Coins
Identified by P. McMichael

1. *Phase IV.* Copper alloy. Constans, AD 337-350. 2g. Context 25.
Obv. CONSTANS PF AUG
Rev. VICTORIAE LAETAE PRINC PERP

2. *Phase I.* Potin; incomplete, in three pieces, in poor condition. Context 25. No detail survives on the reverse. Class I.

3. *Phase V.* Copper alloy. 'Follis' of Galerius, AD 305-311. 8g. Context 112.
Obv. IMP C MAXIMIANUS P F AUG Laureate head R.
Rev. GENIO POPULI ROMANI

4. *Phase V.* Copper alloy 'Follis' of Diocletian, AD 284-305. 11g. Context 112.
Obv. IMP C DIOCLE TIANUS P F AUG Laureate head R.
Rev. mintmark TRMN Female figure holding scales (moneta)

5. *Phase IV* Silver. 'Siliqua', Constantinian family, *c.* AD 330. 15mm diam., 1g. Context 120.

6. *Phase V.* Copper alloy. 'Sestertius' of Trajan, AD 98-117. 24g. Context 134.
Obv. IMP CAES NERVAE TRAIANO AUG GER DAC PM TR P COS PP Head R.
Rev. Very worn, one or two figures (emperor and goddess?)

7. *Not dated.* Copper alloy. 'Follis' of Galerius, AD 305-311. 6g. Context 154.
Obv. Laureate cuirassed bust R.
Rev. GENIO POPULI ROMANI Genius standing L.

8. *Phase IV.* Copper alloy. Probably Trajan or Flavian. 10g. Context 307.
Obv. Head R.
Rev. Figure standing L.

9. *Not dated.* Copper alloy. Fragment of a coin, *c.* AD 340-370. 0.5g. Context 423.

10. *Not dated.* Copper alloy 'Follis' of Licinius, AD 307-324. 4g. Context 423.
Obv. IMP LICINIVS PF AUG Laureate cuirassed bust R.
Rev. GENIO POP ROM Mintmark PTR (Trier)

11. *Not dated.* Copper alloy. Corroded coin. AD 313-337. 17mm diam., 2g. Context 423.

12. *Phase IV.* Copper alloy. Constantius, AD 337-361. 1g. Context 523.
Obv. CONSTAN TIVS PF AUG
Rev. VICTORIAE AUGG Q NN

13. Copper alloy. Constantinian, *c.* 340-360. 14mm diam., 1g. Unstratified.
Obv. Head R.
Rev. Obscured

14. Copper alloy. George II/III halfpenny, poor condition. Unstratified.

Miscellaneous Finds
H. Major
There is a considerable problem of later contamination on this site, with, for example, clearly post-medieval material (e.g. tile and aluminium) coming from Middle and Late Iron Age contexts. In the case of the iron, in particular, where objects are often difficult to date intrinsically, it would be unwise to assume that the objects are the same date as the context.
The second-century finds are of some interest, in that they include several good quality objects, of types which often parallel the finds from the earlier excavations at Dunmow (Wickenden 1988), yet here apparently coming from the middle of a field system. Of particular note are the enamelled boar brooch and the shoe brooch (nos 8 and 9, below), and the enamelled stud (no. 17 below).

Brooches
The brooches are copper alloy unless otherwise specified. Illustrated examples are shown in Figs 24 and 25.

1. Iron bow brooch, foot missing. It has a wire bow, very sharply angled above the head, with two collars on the bow just below the angle. The head appears to expand into a small trumpet. The details of the spring are unclear, but there are probably four coils. 70. *Phase II*
This brooch is a derivative of a *knotenfibel*, a brooch more commonly seen in Britain in silver or copper alloy. There are, however, parallels in iron not too distant from Dunmow, from the cemetery at King Harry Lane, Verulamium (Stead and Rigby 1989, 96, type R), and an example cited by Stead and Rigby from Hitchin, and it may be suggested that they are fairly common in iron in this area. The date is likely to be around the turn of the millennium, if not earlier.
2. Langton Down brooch (Stead and Rigby 1989, 91 type Eb). Multiple pierced catchplate, now mostly missing. There are grooves across the ends of, and along the front of the spring case. This type of brooch dates to the 1st century AD, with an end date of *c.* 60 AD. 90 or 401, *Phase III or Not dated.*
3. Aucissa brooch. The surface is poor in places, and the details of the head are obscured by concretion. The central rib and the edge of the bow have faint zig-zag lines down each side, and the foot knob has a line round it. The type is thought to have been introduced by the Roman army, but had gone out of fashion by *c.* AD 60. 218, *Phase IV.*
4. Simple Gallic brooch (Cf. Stead and Rigby 1989, 89 type Bb) with short side wings, six-coil spring and a wire bow

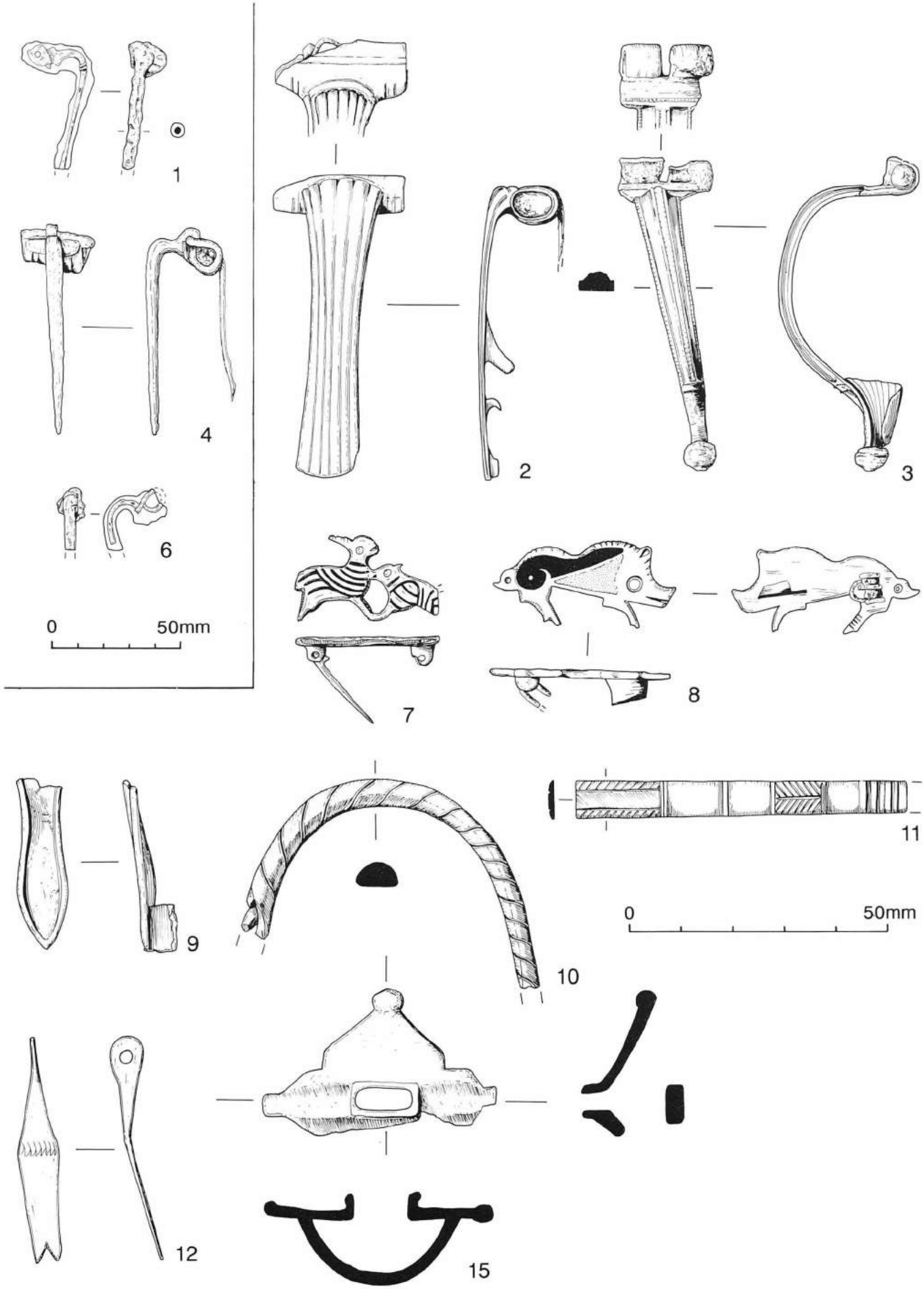


Fig. 24 Buildings Farm, Great Dunmow 1993. Metal finds. Colour key as for Fig. 25.

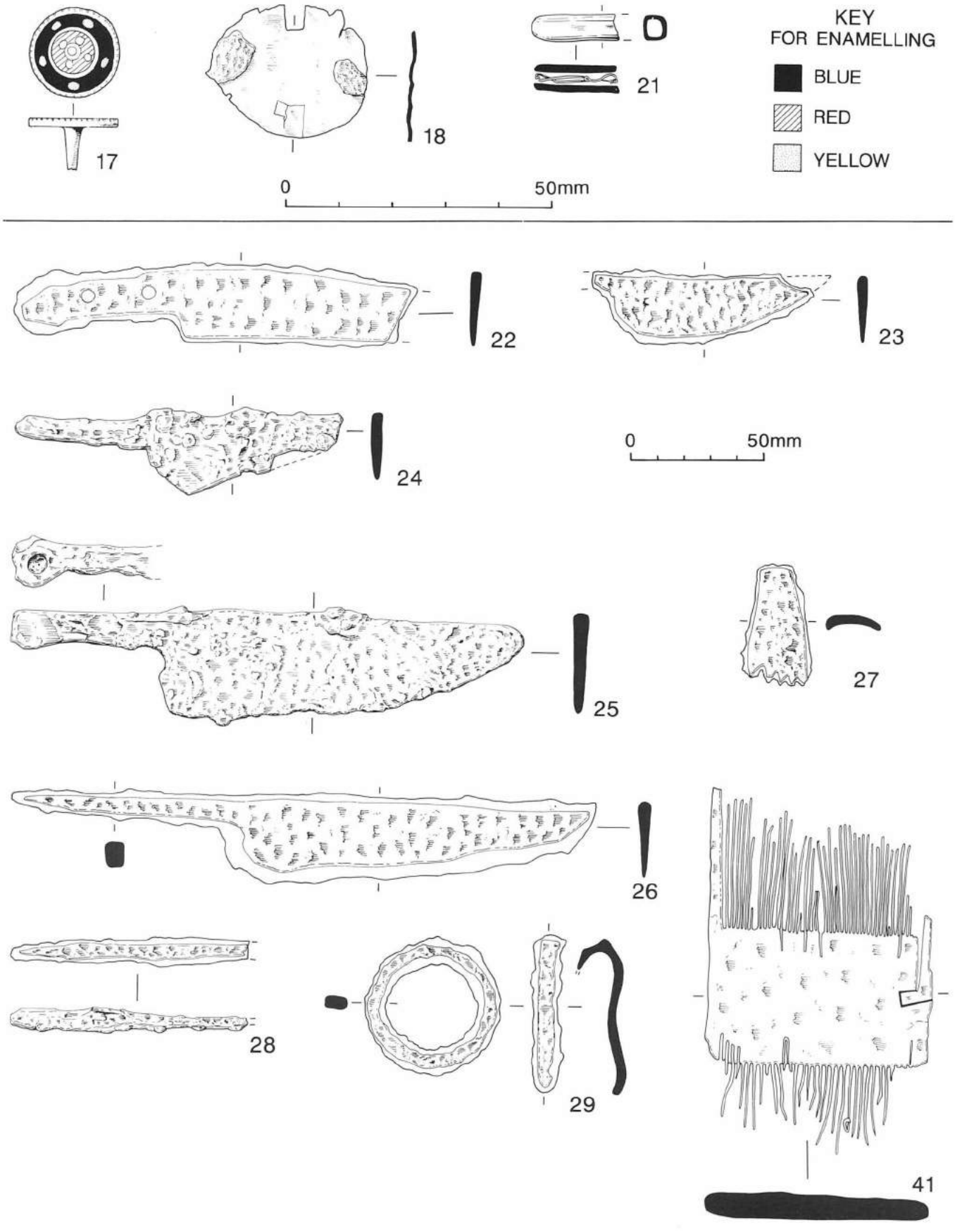


Fig. 25 Buildings Farm, Great Dunmow 1993. Metal finds.

with a sharp angle to the head. Foot missing. In poor condition. 22, *Not dated.*

5. (Not ill.) Colchester brooch in poor condition. Short side wings, spring and catchplate incomplete, foot distorted. The spring probably had eight coils, and the original length would be *c.* 60mm. No context.

6. Simple iron brooch head, with a wire bow and four-coil spring. First-century AD, but not more closely datable. 265, *Phase IV.*

7. A plate brooch in the shape of a rabbit (or hare) being attacked by another, smaller, animal, probably a dog, but now incomplete. The surface is tinned, and probably had niello stripes, as with similar brooches. 17, *Phase III.*
This is comparable to a brooch from Baldock showing a cat chasing a hare, also tinned, and with niello stripes (Stead 1986, 122, no. 152). The latter example is dated 50-70 AD. Other brooches in this style from Britain include a 'squatting rabbit' (unprovenanced, Hattatt 1987, 241, no. 1192). The type is Gaulish, belonging to Feugère's type 29, and most similar to type 29b9 (Feugère 1985, 389). Brooches of this type are likely to have come from a single workshop (which Feugère calls 'Atelier C') located in eastern-central Gaul, possibly at Alesia. The period of production is in the second half of the first-century AD.

8. Enamelled plate brooch in the shape of a boar, pin now detached. This is a very fine example, with well-modelled details, including bristles along the back, wrinkles on the snout and a little curly tail. The enamel on the body is in two panels, the upper one blue, the lower now green. The enamel surround of the eye is missing. 113, *Phase II or later.*
Zoomorphic plate brooches are not uncommon, the animals most frequently depicted being the horse, usually with a rider, and the hare. Boar brooches, however, are very rare in this country. This is perhaps surprising, since Ross (1974, 430) sees the boar as 'in insular tradition... manifestly the most important cult animal'. The continental boar brooches illustrated by Feugère (1985, 383, type 29a11) appear somewhat crude in comparison with this example, and it seems likely that the Dunmow boar was of British manufacture, as was postulated for an enamelled horse brooch found in the previous excavations in Dunmow (Wickenden 1988, 25 and pl. 12). The latter brooch has some stylistic similarities to the boar, with well modelled detail, although it also has a white metal coating. It is possible that the two brooches came from the same workshop. The horse brooches of this type are poorly dated, but likely to be second century, and the boar brooch is probably of a similar date.

9. Part of a plate brooch in the shape of the sole of a shoe. The upper surface would have been enamelled originally. A very similar brooch was recovered from previous excavations in Dunmow (Wickenden 1988, 11, fig. 12). The type is wide-spread in Britain, and common in Gaul (Feugère's type 28b, 1985, 376). 2nd century AD. 173, *Phase IV.*

Copper-alloy objects

These are generally well preserved, with a number of good quality objects, and several enamelled pieces.

10. A fragment from a three-strand cable bracelet. After the strands were coiled, the bracelet was worked to give a smooth, D-shaped section. The type is 3rd to 4th-century AD. U/S.

11. Bracelet fragment, with decorative panels. Lankhills type E (Clarke 1979, 307). Late Roman. 313, *Phase V.*

12. Nail cleaner, of Crummy's type 2a (1983, 58), dated at Colchester mid to late 1st-century AD, and into the 2nd century. It is decorated on each side with walked scorper decoration across the broadest point. L 42mm. ?134, *Phase V?*

13. (Not ill.) A complete pair of tweezers, with a line down each edge. L 51mm. Cf. Crummy 1983, 59 no. 1883. 260, *Phase IV*

14. (Not ill.) The head of a pair of tweezers, in poor condition. 120, *Phase IV*

15. Fitting, probably a horse harness guide loop. Probably four lobed, with one lobe now broken off, with a loop on the back. There is a central rectangular hole, with an incised line from each corner to the angle between the lobes. The date is uncertain. 520, *Topsoil.*

16. (Not ill.) Two fragments of an embossed strip, rather battered. They were probably from a strip about 26mm wide, with corrugated edges, and raised dots along the middle (diam. *c.* 7mm). This sort of strip was often used as a box ornament. ?112, *Phase V?*

17. Circular stud, diam. 16mm. It is decorated with two bands of enamel round a central spot. The outer band is dark blue, with a single block of light blue, and five dots. These are now empty, but may have been light blue. The inner band is now a brownish colour, and has four dots set round it, probably originally enamelled. The central spot has traces of orange enamel. The edge of the stud is slightly notched. There is a previous enamelled stud from Dunmow (Wickenden 1988, 39, no. 1), for which a date in the second half of the second century is suggested. 423, *not dated.*

18. Oval sheet with two rivets present, a small square perforation, and a notch out of one side. The object may be broken on this side. Possibly not Roman. 313, *Phase V.*

19. (Not ill.) Stud or button. A disc, with the stub of a shank surviving. There is a faint circumferential line on the back. Diam. 30mm. Probably post-Roman. 134, *Phase V.*

20. (Not ill.) Sheet fragment, probably with one original straight edge. 28x12mm. 274, *not dated.*

Glass and Copper alloy

21. Part of a translucent, bluish, cylinder bead, with a roughly rectangular section. It was threaded on a copper-alloy wire chain, two loops of which survive in the bead. L 16mm, diam. 5mm. 401, *not dated.*

Lead

Eleven fragments of lead were found, all surface finds recovered by metal detecting. All of it could be scrap metal. It is impossible to say whether any of this is Roman. It is, however, typical of the collections of post-medieval lead scrap recovered during fieldwalking and metal detector survey.

Iron

22. Scale tang knife, with two rivet holes in the tang, point missing. The back is slightly curved. The type is principally medieval or early post-medieval, and the shape of this example is similar to Goodall 1993, 128, no. 828. However, perforated scale tangs blades do occur on Iron Age blades (e.g. at Danebury, Sellwood 1984, 350, nos. 2.34 and 2.36), and while it seems more likely that this object is intrusive, contemporaneity with its context cannot be ruled out. L of tang, 58mm, overall L 150mm. 40, *Phase I.*

23. Blade, with broken tang, point missing. Possibly from shears rather than a knife. 61, *Phase I.*

24. Tanged blade, with short triangular blade, perhaps incomplete. L 121mm. 320, *Phase I.*

25. Tanged blade, with the end of the tang rolled into a ring. The tang is very short, and the ring is perpendicular to the plane of the blade, an unusual feature. Possibly post-Roman. 178, *Phase II.*

26. Tanged knife with straight back. L 220mm. 288, *not dated.*

27. Trapezoidal toothed 'scraper. L 45mm, W 14-25mm.

This is similar to an object from Ivy Chimneys, Witham, in copper alloy, which has been interpreted as a possible tile comb (Webster, in prep). In the absence of any evidence for tile production on or near Buildings Farm, however, it might be wiser to suggest that this object has a different, unknown, function. It should be noted that this object is possibly post-Roman, as this context contains other intrusive material. 70, *Phase II.*

28. Tapering bar, with variable section, square to D-shaped. L 88mm, section 6x6mm to 10x2mm. This may be a tool. 272, *not dated.*

29. Ring, with strip tongue, now detached and broken. This object could be a ring buckle, or the 'tongue' might be a broken double-spiked loop, the whole object being a handle or tie-ring. This is possibly post-Roman. Ext. diam. 47mm. 3 or 477, *Phase II* or *Phase IV.*

Nos. 30-40 are not illustrated.

30. Perforated plate fragment, irregular edges. In good condition, possibly post-Roman. *c.* 38x33mm. 66, *Phase I?*

31. Probable rivet, with domed heads both ends, shaft L 1.5mm. Possibly post-Roman. 67, *Phase I/II?*

32. Small collar, possibly a type II ox goad with the prong broken off (Rees 1979, 76). Int. diam. 11mm, ht. 11mm. 102, *Phase III.*

33. Bar, possibly part of a rectangular buckle. L 33mm. 113, *Phase II.*

34. Curved strip, *c.* 80x2mm, variable width, 8-10mm. 120, *Phase IV.*

35. Two oval rings. Ext. dimensins. 39x28mm, made from a strip, section 4x1.5mm; and 42x36mm. 173, *Phase IV.*

36. T-clamp, head broken. The shaft has a rectangular section. L 80mm, shaft section 9x3mm. 226, *Phase IV.*

37. Strip, curving at one end, with rod at right angles at the other. Probably a broken clamp or dog. Bar is 60x13mm, L of rod *c.* 50mm. 226, *Phase IV.*

38. The squared end of a strip, with a circular headed nail or rivet through it. L 42, W 27mm. 238, *Phase IV.*

39. Bar fragment, curved at one end, possibly a dog or clamp. L 82mm, section 8x3mm. 242, *not dated.*

40. Bar with a right-angled bend at the end, possibly a fragment from a carpenters' dog. L 44mm. 248, *Phase III.*

Iron nails

There was a total of 100 nails or nail fragments, of which 48 were either shaft fragments or were not identifiable due to damaged heads. Nine head types were present. of which the most common was the round, flat head (type A in the catalogue), with 22 examples. Nails occurred from phase II onwards, although 50% of the fragments were from unphased contexts. It is considered that any analysis of the nails is compromised by the degree of post-Roman contamination on the site. There is one definite post-medieval horseshoe nail from a phase III context, but Type A, for example, was in use from the Roman period until early this century, and it is impossible to say how much of this nail assemblage is intrusive.

Textile Processing Equipment

41. A double-ended iron wool comb, used for carding wool (Fig. 25.41). There is some ancient damage, but the object is in relatively good condition, with most of the teeth surviving to some extent, and some probably surviving to their full length. This is the second wool comb to be found in Dunmow, the other being from the 1970-72 excavations (Wickenden 1988, 56). While they are not very common finds, there are probably more known from Essex than any other part of the country, a reflection of the importance of wool production in Roman times. 423, *Phase V.*

Some teeth have clearly been inserted, and one of the thicker side teeth has also been inserted. This side tooth may have come loose, as it is now slightly out of the plane of the body of the comb. The insertion of one or more side teeth is a feature found on a number of combs, for example, one from Witham (Major in prep), and one from Great Chesterford (Manning 1985, 34, D3).

42. Bone 'weaving comb' (Fig. 26.42). The butt was broken off in antiquity, and only one tooth survives due to modern damage. The body is decorated with incised double lines forming a cross, with two lines across the top of the teeth. Surviving L. 112mm. 59, *Phase I.*

The majority of Iron Age bone 'weaving combs' have been found in the West Country, and there is perhaps only one other from Essex (from North Shoebury; Brown 1995, 127). There are, however, a number of examples from Suffolk (Hodder and Hedges 1977, 20, fig. 5). The function of these objects is debatable, although it is generally considered that they were used in weaving. The question of their function is discussed in detail in Sellwood (1984). It is difficult comparing the form of the Dunmow comb to others typologically, since the butt is incomplete. The decoration, of a single cross, is not a common form, falling in Hodder and Hedges' 'DecL' class – other linear patterns (*op. cit.*, 24), although the use of multiple crosses down the butt is more frequent (DecB and DecD). The distributions shown in Hodder and Hedges (1977) suggest that the combs from the East Midlands and East Anglia are most frequently undecorated.

43. (Not illustrated) 34 contexts contained fragments of *triangular loomweights* in baked clay. All were small, with few measurable dimensions. Perforations present were 10-17mm in diameter, and two weights had estimated thicknesses of *c.* 80mm and *c.* 90mm. It is perhaps unsafe to say anything about the distribution across the site, since most features only had a small proportion of their total volume excavated. However, fragments seem to be more common in the north-west of the excavated area, with the largest amounts coming from ditches 36 and 92, close to Middle Iron Age roundhouse, structure 2 (Fig. 7). Fragments occurred in features of all phases, although the type is typically Iron Age (Major 1982). It is likely that the use of such loomweights continued for a while after the invasion, but the fragments from the later Roman phases are no doubt residual.

Stone

Querns The fragment of sandstone quern (no. 45, below) is one of a very small group of rotary querns of Iron Age form from Essex, in stones other than puddingstone. There are at the time of writing only ten definite examples, two of which are unprovenanced. Two are of the tall Hunsbury form typical of the Midlands (one of which is unprovenanced, and may have been collected outside the county). The remainder are more or less bun-shaped; four are from dated Iron Age contexts. This paltry number of querns may be compared with the 111 puddingstone querns known from the county. These are Iron Age in form, but no definite puddingstone querns have been found in Iron Age contexts (and it may be noted that the one from this site is from a late 1st century to 2nd-century context. This suggests that if the puddingstone forms are indeed Iron Age, they probably appeared very late in the period and continued in use for at least some time into the Roman era. The paucity of demonstrably Iron Age rotary querns from the county may be partly due to the continuing use of saddle querns, and indeed, there are more saddle querns (at least 14) from middle and late Iron Age contexts across the county than rotary querns. (I would like to thank Dr. C.J. Ingle for her comments on the stone identifications).

44. (Not illustrated) Unidentified pink stone, possibly from the Midlands; fragment, possibly from the edge of a saddle quern. 29g. 272, *not dated.*

45. (Fig. 26) Medium-grained sandstone (not greensand), crumbly, surfaces eroded. A fragment from a bun-shaped

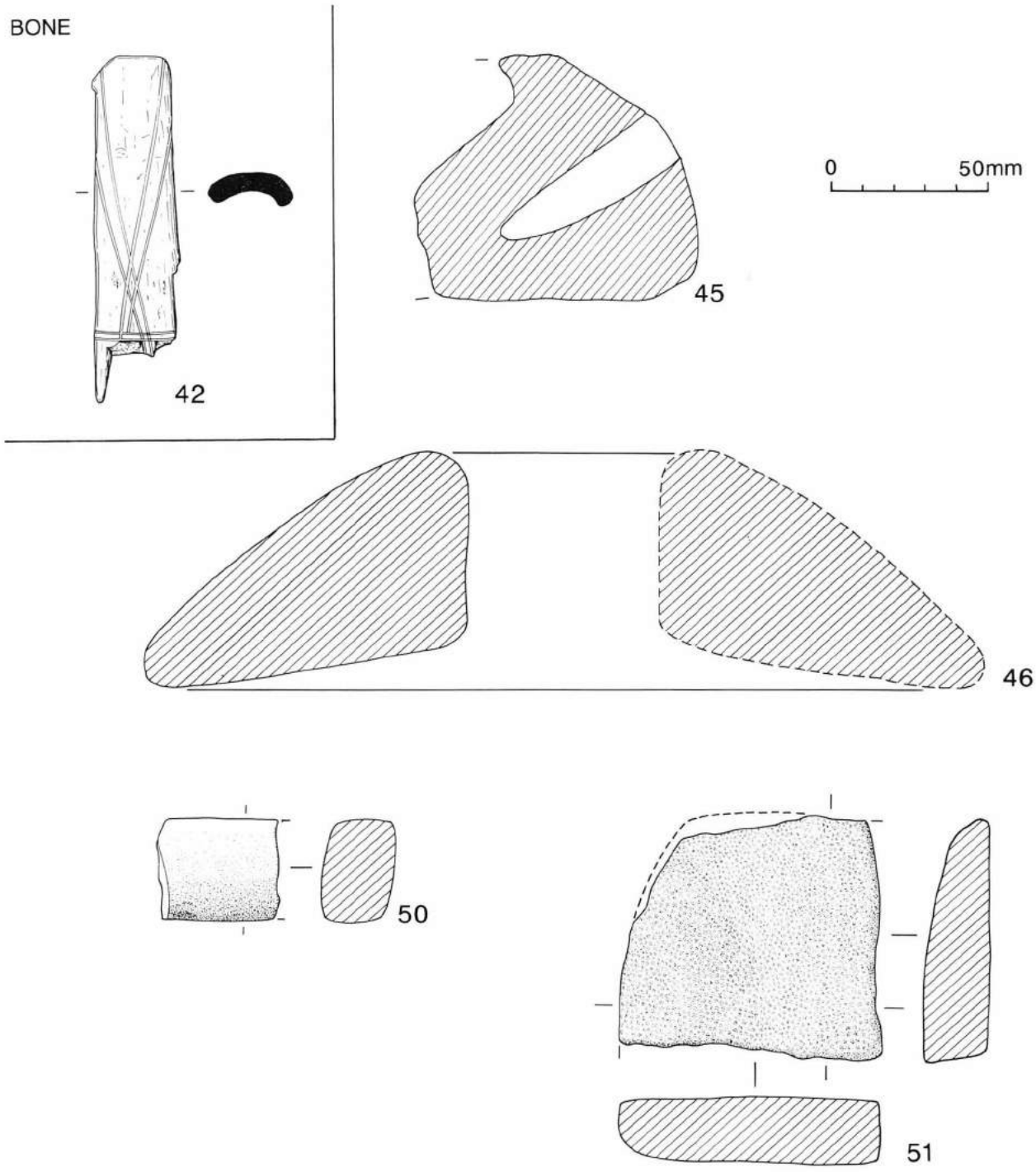


Fig. 26 Buildings Farm, Great Dunmow 1993. Bone and stone finds.

upper stone, broken across a non-perforating handle hole. This adds to the small number of querns of pre-Roman form from the county in a stone other than puddingstone. 80mm thick (this is probably nearly its full height), diameter not measurable. 788g 162, *Phase III.*

46. (Fig. 26) Puddingstone quern fragment. *c.* 20% of an upper stone with a straight hopper. The grinding surface has a worn band *c.* 15mm wide round the outer edge. This is a rather small, flat stone. Diam. *c.* 180mm. 1100g. 95, *Phase III.*

47. Chip of greensand, probably southern. It has a very smoothly worn surface, and is probably from the edge of a rotary quern. 80g 162, *Phase III.*

48. (Not illustrated) Ten eroded fragments of lava quern were found, eight from an undated context, and one each from a *Phase IV* and a *Phase V* context.

Other worked stone

49. (Not illustrated) Sandstone; a natural slabby fragment from a large pebble, roughly triangular in plan. Although

the shape is basically natural, one face may have been used as a rubbing stone. *c.* 125x78mm, 35mm thick. 496g. 63, *Phase I.*

50. (Fig. 26) Grey, fine-grained sandstone, possibly from Kent. A fragment from a well made whetstone with a rounded rectangular section. The stone is similar to that of a large group of Roman whetstones from Castle Point, Canvey (in private ownership, examined by the author). 25x32mm, surviving L 37mm. 64g. 310, *Phase II.*

51. (Fig. 26) Probably Jurassic sandy limestone. A fragment from the corner of a slab 20mm thick. One side is flat, and the slab tapers slightly towards the edge. 166g. 420, *not dated.*

52. (Not illustrated) Coarse sandstone, probably millstone grit. Squared corner, perhaps from a rectangular block. This is probably a piece of reused quern, as there are vague traces of grooves on one surface. One surface is flat, the other slightly dished. 32-41mm thick. 174g. 423, *Phase V.*

Tile

Only a small amount of tile was recovered (80 sherds, weighing less than 5kg), and it was not considered worthwhile cataloguing it in great detail. All types of Roman tile were represented, including two fragments of combed box flue tile, and there was also a good deal of post-Roman tile, 23% of the total number of pieces. The amount of Roman tile is surprisingly small for a Roman site.

Baked Clay (Not illustrated)

9546g of baked clay was recovered. The only definite objects present are triangular loomweights (see above), all very fragmentary, although there are a few possible fragments from 'Belgic Bricks' or slabs. The majority of the baked clay was in a fabric with fairly common to common chalk fragments and sparse sand temper, generally cream or buff in colour, but sometimes red. This chalky fabric is typical of sites in this area, being commonly used for structural daub, and some of the baked clay from Buildings Farm may have been daub, although there were no wattle impressions noted.

There was no particular concentration of baked clay in any one part of the site, although the three largest groups were all in the north-west corner (F 34, F36 and F92) by the Middle Iron Age roundhouse, structure 2.

Animal bone

by Alec Wade

A total of 2,973 pieces of bone, weighing 44.78kg, was recovered from all phases. The assemblage was in reasonable condition, which resulted in 29.6% of the sample being identified to species level by number of pieces and 69.6% by weight.

The nature of the assemblage prohibits any detailed conclusions being drawn with certainty, but several points may be inferred. The four main species of horse, cattle, sheep/goat and pig are present throughout the occupation of the site, with sheep being the most prevalent species identified from the prehistoric contexts. The Late Iron Age and early Roman phase (phase II) is the most prolific in the amount of animal bone being recovered and has a very high frequency of burnt, butchered and dog-gnawed bone in its contexts. The late 1st-2nd and late 2nd-3rd century phases (phases III and IV) show a decline in the amount of animal bone produced. Phase V shows an increase in the quantity of material recovered and in the frequency of butchered, immature and gnawed bone.

Discussion; the evolution of the Buildings Farm field-system (Fig. 27)

Whilst it is often seen that field systems in Roman Britain (and, indeed, medieval Britain) were rarely static in their layout, the evolution is usually confined to at the most one major reorganisation and a number of lesser changes involving the increase or decrease of the size and possibly quantity of fields. Seldom is a situation found which is comparable to that at Buildings Farm, where three quite distinct field systems were superimposed. The layout of the fields at Buildings Farm was originally established at the end of the pre-Roman Iron Age, or very soon after the conquest, radically changed after some 50 years of use, then changed again a century or so later, and had largely disappeared by the fourth century.

A sequence of three detailed field-systems, spanning a period of only 200 to 250 years, can be identified, each successive arrangement superimposed over its predecessor. Neither the second nor the third of the field-systems appears to incorporate any elements from that which went before, although in some instances a ditch alignment may run very nearly along the course of an earlier one, displaced by only a few metres.

The fields which comprise the field systems (Fig. 27) tend to be very small compared with others of Roman date. The first two field-systems consist almost exclusively of defined areas less than 60m along their greatest dimension. Many of the ditches were very insubstantial, and it is clear that some (particularly those of the Phase II field-system) have been destroyed by recent deep ploughing of the heavy clay soil over at least part of their length. The main axis of the ditches was west-south-west to east-north-east, parallel with the course of Stane Street (A120), which has remained the principal orientation of the fields north of the road up to the present.

Despite the size of the excavation (nearly a hectare) only a small part of the area likely to be covered by the field-systems was investigated. It is probable that these small fields comprise a series of paddocks close to the farm buildings in the area to the north of the excavation. The larger fields, whether arable, pasture or both, probably lay further out away from, or to the north of, the farm compound. There were no signs of a compound comparable to that at Great Holts Farm (Germany in prep.) or Barton Court Farm (Miles 1984).

Thus it appears that in Phases II, III, IV and possibly V the recorded field-systems are part of a planned landscape based upon the Braughing to Colchester road, and that the sample is probably not representative of this landscape as a whole.

The earliest phase of ditches dates from the middle of the 1st-century AD, or possibly slightly earlier, since 179 contained pottery from the first half of the 1st century. The rest of the material associated with this field-system is, however, quite securely post-conquest.

The two rectangular and one small funnel-shaped enclosures appear too small either for arable use, or for large-scale grazing and were probably paddocks or animal holding pens. The measurements of the paddocks

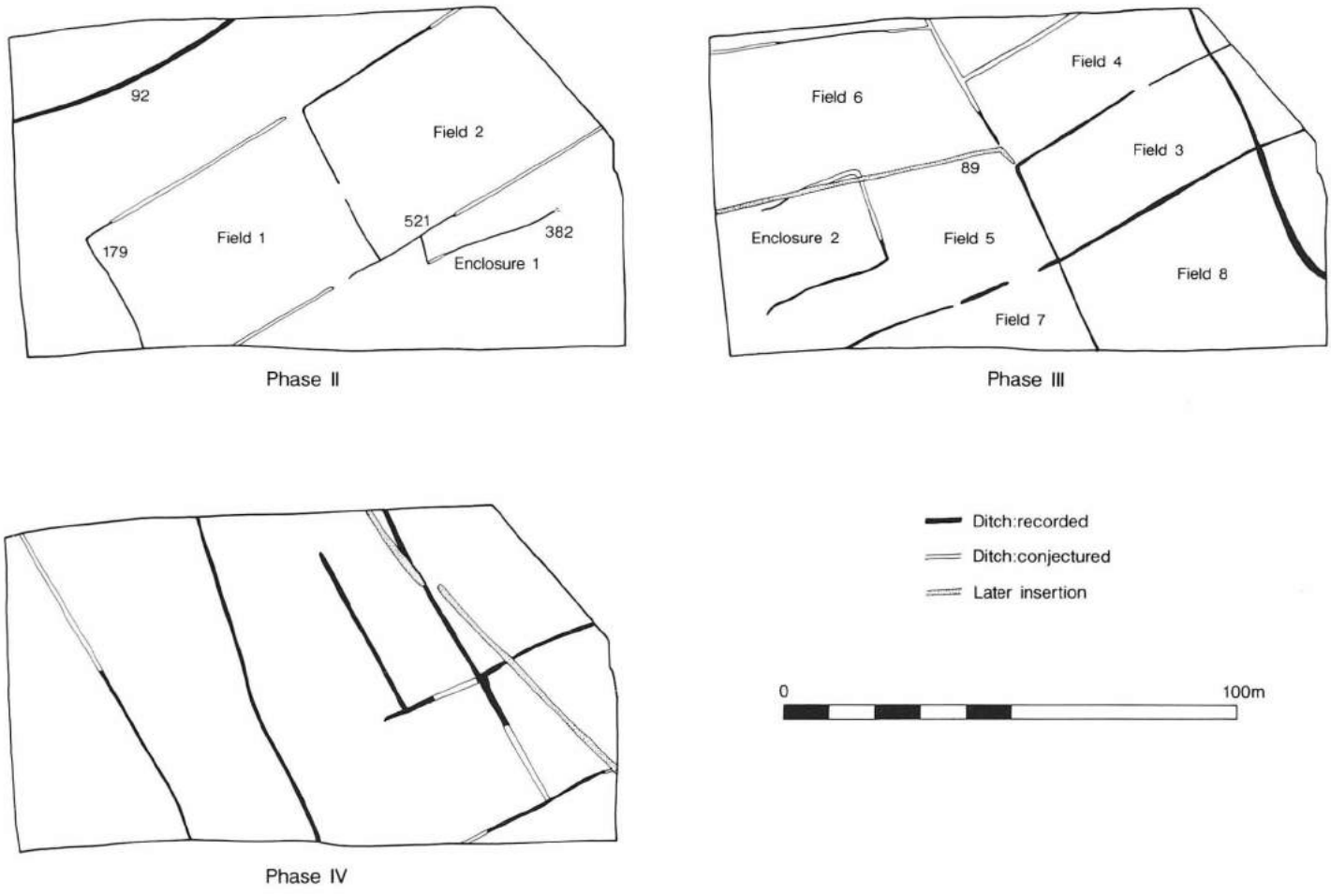


Fig. 27 Buildings Farm, Great Dunmow 1993. Evolution of the field system.

were probably intended to give areas of 1 iugerum, but were actually slightly smaller. No further boundary ditches were observed, which may indicate the presence of larger fields to the west and south of the paddocks. Ditch 92 may have formed a boundary between the fields and the farm compound.

The ditches which comprised the Phase II field-system were, as previously stated, very slight, and would not in themselves have formed an adequate obstacle to roaming animals. Furthermore, there was no evidence for accompanying fences either alongside or within the ditches, even in the corner segment of 179, where a posthole might be expected to lie.

The paddocks of Phase II did not survive long, and it is possible that they were only intended as a temporary arrangement as a part of what appears to be a newly established farm. By the end of the 1st century, the ditches had been allowed to silt up and a new layout had been introduced. The Phase III field-system again consisted largely of small paddocks, although their ditches were more substantial and their area smaller (around 1 actus). Initially one larger field occupied the western half of the excavated area, with a small open-ended enclosure, about the same size as the contemporary paddocks, lying within it. An east-west ditch (89) was, however inserted to subdivide this field, which cut across the ditches of the small enclosure and blocked the access to the paddocks in the eastern part of the excavation.

In Phase IV the small paddocks appear to have been largely done away with. Now there was a series of narrow strips, aligned north-west to south-east, which imply that at least the western part of the excavated area was now given over to arable cultivation. It is only in the south-eastern quarter of the site that small rectangular enclosures continued to be laid out. One of these contained the large penannular gully which has been referred to as Structure 3, although the evidence for its having been a building is very doubtful, and it is possible that it was a circular corral perpetuating the tradition of stock holding in this area.

During the late 3rd to early 4th century, this field system fell out of use, and the large pit sequence 421 was dug through one of its elements (ditch 17/480). Further ditch digging continued during the 4th century, but no enclosed areas can be discerned, and it is possible that now the area was completely arable and consisted of large fields whose boundaries did not lie within the excavation.

One interesting aspect of the field-systems record-

ed at Buildings Farm is the close correspondence of the principal axes with those of the extant boundaries in the vicinity, and with the current line of the A120, which suggests that the slight kink in the road at High Wood (TL 604 215) is of Roman or earlier date. This probably creates problems for Rodwell's alignment of the road through Great Dunmow itself. The tendency to replace field systems with a new layout on the same general axes can be seen on other sites, though seldom over such a protracted period. At Baldock, the early phases feature the adjustment of fields and trackways, but only up to the early 2nd century, after which the site alters quite drastically in its layout (Stead and Rigby 1986).

South of the road as far as the dismantled Great Dunmow to Bishops Stortford railway, there appear to be no extant field boundaries, and when they do appear again, their axis is quite different, being aligned much closer to north-south than they are in the north. This, however does not seem to reflect the Roman field pattern, as can be seen from a small area of cropmarks.

Directly south of the railway, in the fields of Folly Farm (Fig.4: TL 618 213) lies an area of gravel subsoil, and aerial photographs show an intensive area of cropmarks. The eastern extent of these was unfortunately destroyed by quarrying before the photographs were taken. There does seem to be a western limit to the main group of cropmarks, and it is possible that the southern limit is marked by the stream at the bottom of the field. Metal detecting finds from this field indicate Late Iron Age, Roman and medieval activity (Medlycott 1990).

The cropmarks and the finds can be divided into three fairly distinct groups. In the south-west part, signs of possible hut-platforms of ring-ditches are accompanied by Late Iron Age coins and other finds. To the north east, medieval metalwork and was associated with at least two meandering ditches on a north-east to south-west alignment. For present purposes, the cropmarks occupying much of the western side of the field are of primary importance. An intensive pattern of ditches indicating several phases of activity yielded finds of Roman material. In addition to the assumed date and multi-phase nature of these cropmarks, their principal axes are identical to those of the Buildings Farm excavation.

Fieldwalking along the proposed route of the new A120 immediately south of the stream located nothing but small quantities of medieval and post-medieval material.

The implication of these two groups of field-systems so close to the road is of a large planned Roman landscape, probably involving several farms grouped around the probable local centre at Great Dunmow.

Conclusions

The location of the Middle Iron Age settlement was largely unexpected. A single sherd of unabraded Middle Iron Age pottery had been recovered during field-walking, but this had not been interpreted as indicating activity on the scale recorded. Unfortunately it was not possible to extend the excavation to cover any more of the area of the settlement, but from the small sample available it was possible to conclude that it was reasonably long-lived, passing through at least two periods of construction. In at least the later period (equivalent to Drury's Little Waltham Period III) the settlement was enclosed by a very substantial ditch, though it is doubtful whether there was adequate space outside Structure 2 for an internal bank.

Middle Iron Age activity in Essex has been recorded at a number of locations, the best known being at Little Waltham (Drury 1978). Other prominent sites include Gun Hill (Drury 1973), Chignal St. James (Clarke forthcoming), Lofts Farm (Brown, Buckley and Martingell 1984-5), Chigborough Farm, Slough House Farm and Howells Farm (Wallis and Waughman forthcoming). The proximity of Great Dunmow to Little Waltham and similarity of the house types is such that there must have been links of trade, kinship or allegiance between the two, particularly if one assumes ancient navigability of the Chelmer, and possibly a very early origin for a routeway on the line of the modern A130.

The main result of the Buildings Farm excavation is that an area of the Roman landscape close to Great Dunmow, but outside the conjectured urban limit has been investigated. It is evident that a planned system of agricultural land division was instituted very early in the Roman period (possibly even in the Late Iron Age), almost certainly based on the major road alignments. The continuity of the axes of the field systems throughout the Roman period, and apparently up to the present indicate continued use of Stane Street as the basis for the planned agricultural landscape around Great Dunmow.

Apart from Structures 3 and 4, which while they may have been buildings are not believed to be residential, no Roman buildings, domestic or agricultural were recorded. The quantity of tile from both field-walking and excavation was small, and it is likely that thatched, rather than tiled, roofs may have prevailed. The presence of fairly large quantities of domestic rubbish, including oyster shell, in the features suggests close proximity to habitation, which may have been to the north of the excavated area. The first recut of feature 186 contained large quantities of burnt daub and charcoal which may well have been dumped there following the clearance of a building destroyed by fire in the area to the north of the excavation. Slight field-walking concentrations of Roman pottery and tile (Figs 2 and 3) in this area may suggest the presence of further activity .

The presence of early Saxon pottery in several features is interesting, although inconclusive. Its condition is suggestive of 5th-century occupation on, or adjacent to, the site. No further evidence, in the form of identi-

fiable Saxon structures or metalwork, were recorded during excavation, and no Saxon artefacts were discovered during fieldwalking. Previously Saxon evidence had been known from the Chequers Lane site (Wickenden 1988), where 8 sherds of probably Early Saxon pottery were recovered from topsoil above the Roman shrine and a possible sunken-floored building of the mid-7th century was recorded cutting the fills of a Roman gravel pit.

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Prehistoric and Roman material from Rainham; an archaeological watching brief at the former Rainham Football Ground, 1995

by Mel P. Costello

with contributions by P. Cannon, S. Ford, S. Hamilton-Dyer and J. Timby

Introduction

In March 1995 a field evaluation was carried out, followed by a watching brief in June of the same year, on *c.* 0.5 ha of land on the site of the former Rainham Football Club, Rainham, Essex (TQ 5230 8190; Fig.1). This work was commissioned by Mr. Derek Parker of Fairclough Homes, according to a brief prepared by English Heritage (London Region).

The evaluation was requested by English Heritage to assess the archaeological potential of the site as set out in Archaeology and Planning (PPG 16, 1990). Subsequently, as a condition on the granting of planning permission, a watching brief was undertaken, supervising the stripping of topsoil and recording of archaeological deposits revealed. The site code, RA-FG95, was assigned by Newham Museum Service.

Topography and geology

The site lies on the eastern flank of a gravel terrace spur jutting onto the Lower Thames floodplain. The area is on level ground at a height of *c.* 4m above OD. and is located on an underlying geology of gravel terrace capped locally by brickearth. The relative height of the surrounding area and the absence of brickearth upon the actual football pitch, suggests a degree of truncation over the site, reflected in the shallowness of many of the features discovered.

FIELDWORK

Evaluation

This consisted of the excavation of a total of five trenches by a JCB-type machine fitted with a toothless bucket, in those areas of the site not destroyed by quarrying and land filling. This exposed a 70m length of natural geological surface, approximating to a 3% sample of the *in situ* deposits. The trenches were 1.6m wide and of varying lengths.

The evaluation located a single feature of archaeological significance. This feature was a V-profile ditch 1.1m deep aligned roughly west-east, located in both trenches 3 and 5 (Fig. 2). It was thought to be a field ditch or land boundary. Pottery of Late Bronze Age/Iron Age date came from the body of the fill with a sherd of Roman pottery from the upper levels. None of the other trenches produced finds or deposits of archaeological significance. The paucity of the evidence suggested a low archaeological potential. Further detail of the evaluation is presented in Ford (1995).

Watching brief

The watching brief examined an area of approximately 2800 sq.m following stripping by a 360° excavator fitted with toothless bucket. This revealed terrace gravels into which were cut various features. A significant number of features were located in addition to the ditch found during the evaluation. Due to the limited time resources inherent in the watching brief, recording was not as detailed as for an excavation. Nevertheless, all features were located on plan and most were fully recorded. Those not examined generally consisted of post-hole sized features, which, in comparison to adjacent features, were expected to be very shallow and undatable. The area was not hand cleaned but the surface was stripped well enough to be confident that the vast majority of features had been identified. Slots were dug across the large ditches and most pits were half-sectioned along with a large sample of the post-holes.

Description of features

The archaeological features discovered consisted of ditches (F10, F13), pits, postholes and a ring gully

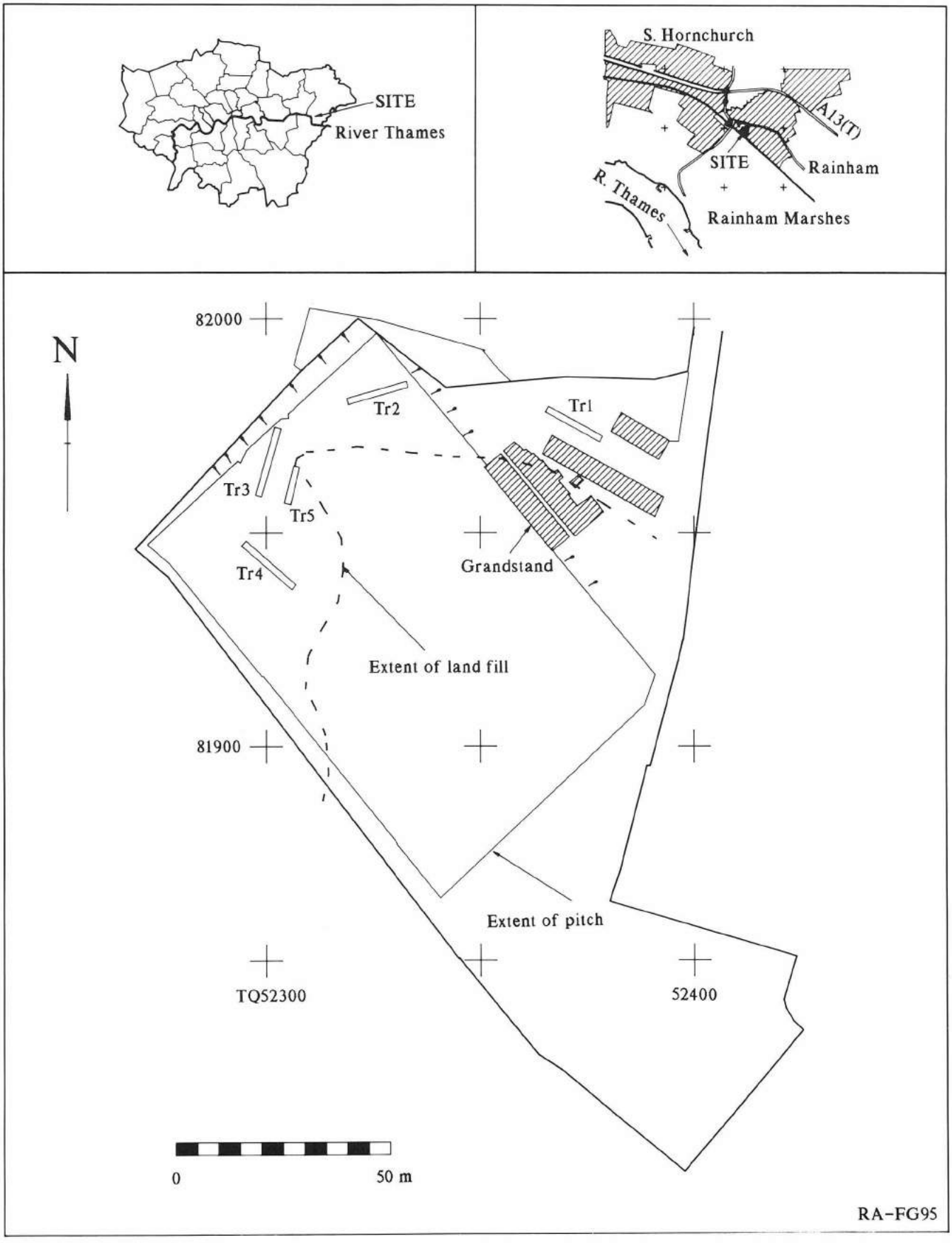


Fig. 1 Rainham Football Ground 1995. Site location.

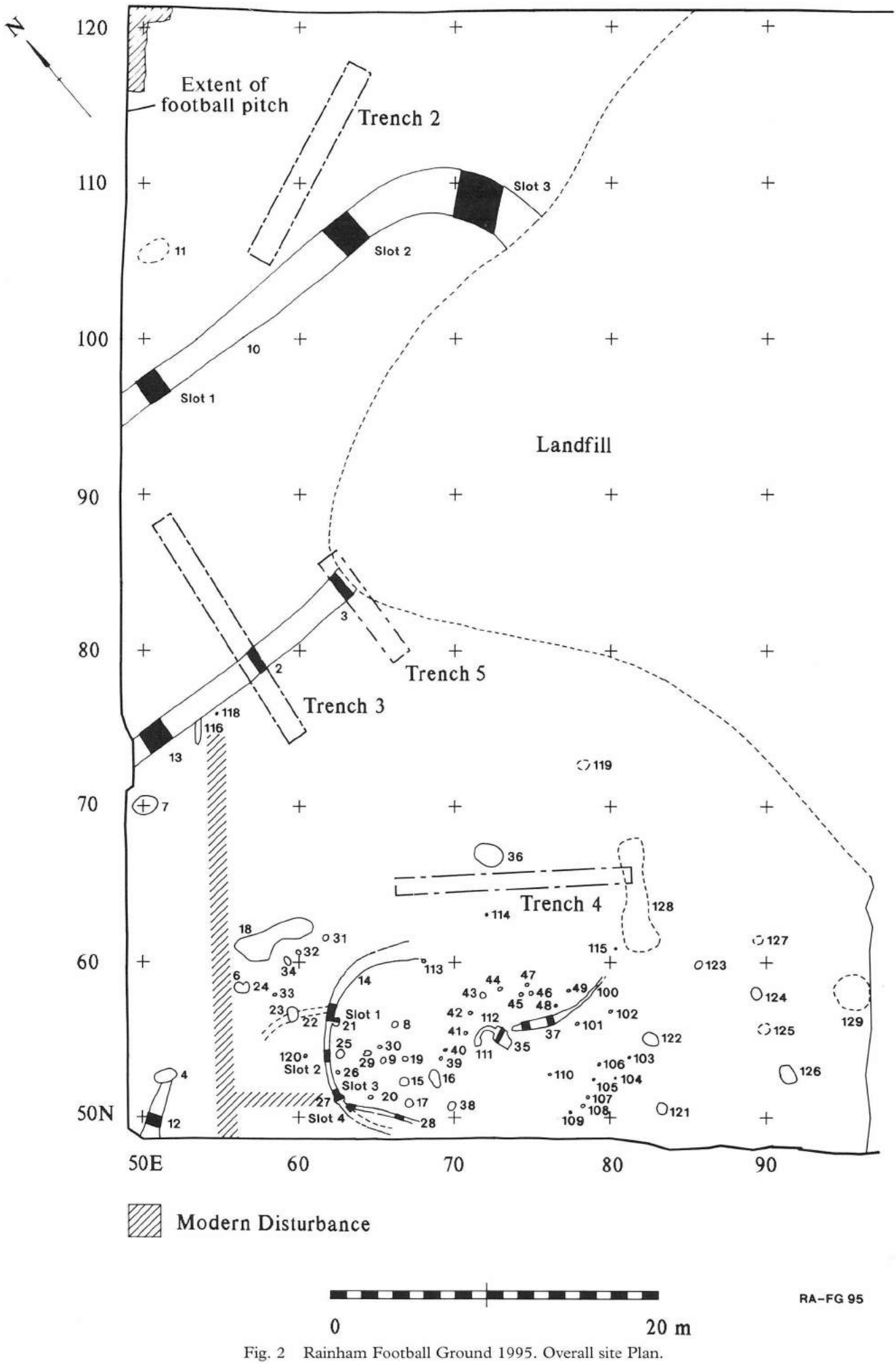


Fig. 2 Rainham Football Ground 1995. Overall site Plan.

(F14). The majority of the features lay to the south of the two ditches, in the vicinity of the ring gully (Fig.2). The ditches were parallel, with F10 lying 16m to the north-west of F13, both running south-west to north-east. Ditch F10 turned to run south east prior to running into the landfill. Whilst F10 had a depth of 1.30m and F13 a depth of 0.80m, the majority of postholes were quite shallow, being no more than 0.10m deep. Similarly, the ring-gully was of a comparable depth, whilst the pits ranged in depth from 0.20m to 0.65m. The fills generally consisted of silty sand or sand, and invariably contained a percentage of small angular grit, often with charcoal. It is difficult to group all of the features by phase so they are described by feature category as follows:

Linear features

Feature 10 was a large ditch running south-west/north-east parallel to, and 16 m to north-west of, F13. A 30m length of this ditch was exposed, until it ran into the landfill after turning towards the south-east. The ditch was *c.* 3.00m wide at the top and *c.* 1.30m deep, with a U-shaped profile. Slot 1 produced unstratified prehistoric pottery and a sherd of domestic Beaker from the secondary fill (74). Burnt flint and iron slag came from the top fill (67). Slot 2 revealed at least two recuts, F130 and F131, and produced fired clay and burnt flint, but no datable pottery. The majority of pottery was recovered from slot 3 at the turn of the ditch. The top fill (76) contained many sherds of Early/Middle Iron Age pottery and also burnt clay, burnt flint and a cattle rib (Fig. 4). It is possible that this ditch may form part of an enclosure. Feature 13 was the second ditch, which was located during the evaluation (F2/F3). This was 2.20m wide across the top, 0.80m deep, and of V-shaped profile. Approximately 18m of this ditch was exposed. The ditch produced burnt flint and pottery of Early/Middle Iron Age date, similar to that from F10 (76). Eight body sherds from the middle fill (73) may also be of Iron Age date. Feature 12 was a shallow gully in the southwest corner of the site, running south-west to north-east, its butt end cut by pit F4. It was 0.80m wide and 0.15m deep, and contained one prehistoric body-sherd, burnt clay and a cattle molar. The curvilinear feature at the southern end of the site (F14) may have been a ring gully. Approximately 19m of the ring gully was exposed, but the feature was denuded by modern disturbance. If the gully was a circular feature originally, it would have had a diameter of at least 12m. The gully was c. 0.40m wide and 0.10m deep. Four slots were cut along its extent, located to examine the relationship between F14, gully F28, and two post-holes. Post-hole F21 was cut by F14, whilst posthole F27 cut F14. No relationship was observed with F28. A base-sherd with foot-ring of Late Iron Age date was retrieved from slot 4. Associated with F14 was F22, a gully 0.50m wide and at least 4.00m long, petering out to the west. No relationship was visible with F14 in slot 1 and the gully was not excavated. It was, however, cut by pit F23 half-way along its visible extent.

Feature 37 was a 5m long gully, 0.60m wide and 0.10m deep and *c.* 10m east of gully F4. This yielded a body sherd akin to pottery from F10 (76), being of possible Early/Middle Iron Age date. Feature 100 was an extension of this feature, running to the north-east for a further 3m with a width of 0.20m. In the same area, F112 was a short gully curving from F111 to F35. Feature 116 was a small gully/scoop cut by the large ditch F13. It was 1.50m. long, 0.40m wide and only 0.06m deep.

Pits

Fifteen pits were excavated, all except F11 to the south of the two large ditches. They varied in depth from 0.20m to 0.65m. The largest pit was 2.80m long and 1.60m wide (F36), whilst the smallest was 0.60m in diameter (F121). All the pits contained substantial amounts of finds including pottery of Early Bronze Age to Roman date, burnt flint and fired clay, including some daub. Features 6 and 24 in particular produced a large amount of daub. Feature 122 also produced a Roman coin of 1st to 2nd-century date.

Spreads

Two ill-defined spreads were found. C18 on the north west side of the main group of features was 5m long, 1m wide and 0.10m deep. C128 to the north east of the main group of features was 7m long and 1.50m wide but was not excavated. These spreads produced no finds or charcoal, although the deposits had a similar appearance to the fills of other features on the site. It is, however, by no means certain that these features are of archaeological significance.

Postholes

Forty-eight post-hole sized features were identified, of which 31 were excavated. All were thought to be valid archaeological features despite the amount of truncation on the site. They generally ranged in diameter from 0.10m to 0.60m with depths ranging from 0.04m to 0.10m. F35 was exceptional at 0.35m depth. In plan they were circular to oval with flattish or rounded bottoms. Only 5 produced finds; F15, 17 and 21 containing burnt flint and F27 and F123 containing prehistoric pottery.

Post-hole structures

Many of the post-holes lay in curving arrangements which appeared to represent four structures (Fig. 3). Structure 1 comprised an arc of 12 post-holes (F41, 42, 43, 44, 47, 49, 102, 103, 104?, 108?, 109? and possibly F38) located immediately to the east of F14.

It may be feasible to reconstruct a sub-oval structure of 9m width (of which 12m was exposed). The post-holes were 0.50m to 1.50m apart.

Structure 2 consisted of seven post-holes (F45, 46, 48, 101, 106,105,107) forming an arc overlapping in area with structure 1. These may form a structure with the post-holes 0.50m to 1.00m apart, spanning *c.* 8m. Its stratigraphic relationship with structure 1 is unclear and several post-holes (F41, 42, 43, and 44) may belong to either structure. It is interesting to note that F35, 111, 112, 37 and F100 are all contained within this area.

Structure 3 comprised an arc of six post-holes to the east of F14 (F120, 25, 29, 9, 15, 17). The post-holes were 0.50m to 1.00m apart and spanned *c.* 5m. This appears to represent part of a structure belonging to another phase of construction. Burnt flint came out of three of the post-holes. Other post-holes also occurred in this area; F8,20,21,27,113 and F120, but their structural significance is unclear.

Structure 4 was an arc of six post-holes north of F22 and concentric to F14 (F31, 32, 34, 33, 23?, 21). They were 1.00m to 3.00m apart and may have formed the line of a fence/post-setting running around part of F14 or may have comprised another phase of construction.

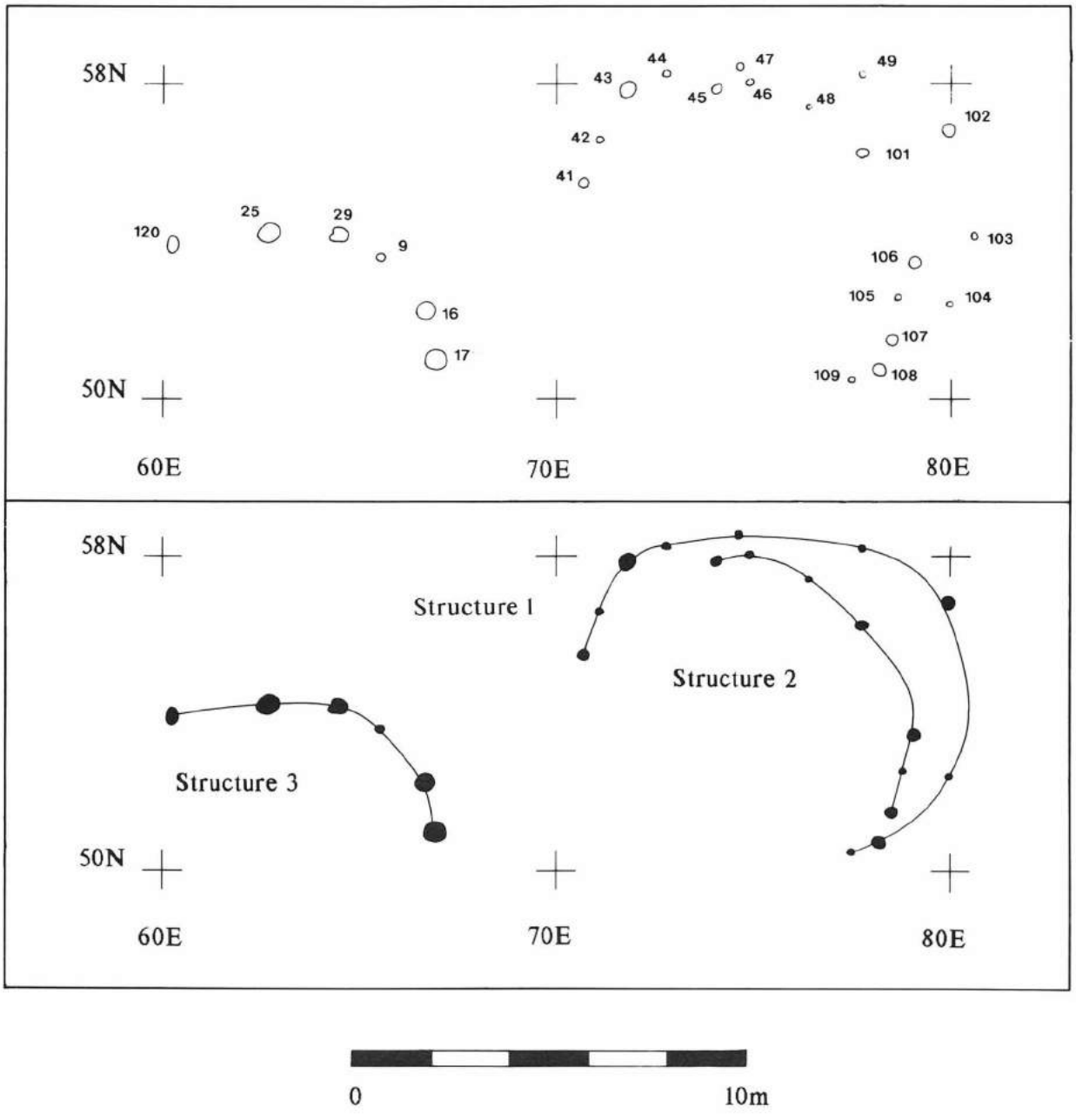


Fig. 3 Rainham Football Ground 1995. Detailed plan of posthole structures 1-3.

Chronology

Phase 1 – Early Bronze Age

The earliest activity represented on the site was of Early Bronze Age date. A substantial amount of Beaker pottery came out of F23, including rim, base and body sherds. This was accompanied by a large amount of burnt flint and fired clay, and a flint flake. Feature 22 appears to be the earliest on site, which despite having no direct dating evidence, was cut by F23. Features 4, 121 and 124 produced a few sherds of possible Early Bronze Age pottery. Feature 10 yielded a single Beaker sherd, but this is likely to have been residual.

Phase 2 – Early/Middle Iron Age

Most pottery of this date came from one of the large ditches (F10, slot 3). This came from a tertiary fill (76). One sherd of Beaker pottery came from the secondary fill in slot 1 (74), which may give a *terminus post quem* of the Early Bronze Age. However, on balance, the evidence suggests that this is more likely to be residual pottery and the ditch is of Early/Middle Iron Age date. Pits F121 and 124 may similarly belong to this phase.

Ditch 13 contained Early/Middle Iron Age pottery from all layers contained within its fill and is likely to date from this period. Whilst F10 and F13 are parallel, they are of different depths and profiles. Ditch 10 produced pottery of a similar date to F13 from its tertiary fill (76), slot 3. However, only a single sherd of Beaker came from the secondary fill of F10, and whilst it is likely that this is residual, it seems clear that F10 and its recuts F130 and 131, predate the deposition of the Iron Age pottery. It is possible that F10 is superseded by F13, both being of Early/Middle Iron Age date.

A number of other features contained Early/Middle Iron Age pottery, including gully F37/100 and pit F16, both of which may belong to this phase and may be associated with post-hole structures of this date. Pottery from F27 may again be residual. Pit F4, however, can be securely dated to this phase. It is apparent that some of the suggested post-hole structures are not contemporary with the ring gully. Given the ceramic evidence for Early/Middle Iron Age activity on the site, it is not unlikely that at least some of these structures belong to this phase, and may represent successive stages of construction within this area.

Phase 3 – Late Iron Age/Roman

Pottery of this date comes almost exclusively from the pits, although one Roman sherd was recorded in ditch F3 in the evaluation. Pit 7 produced a substantial amount of Iron Age pottery. Pits 6, 11, 24, 122, 126 and 129 produced pottery of this period, along with burnt flint and daub. In addition, F122 contained a Roman coin of possible 1st to 2nd-century AD date.

The structural evidence from the site cannot be securely dated. The only pottery from F14 and post-holes in the vicinity has been postulated as being residual in nature. This is due not only to the

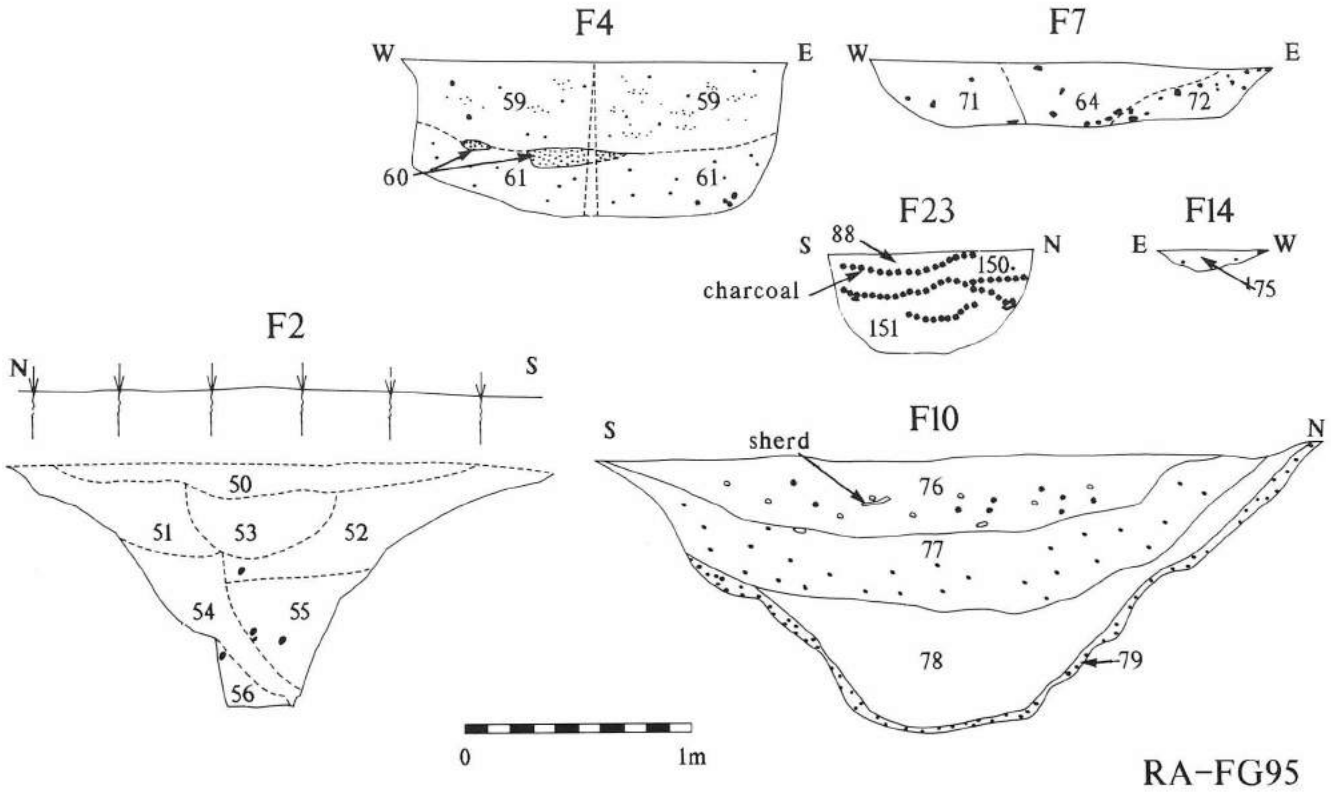


Fig. 4 Rainham Football Ground 1995. Sections.

contradictory nature of the evidence, but also the shallowness of the features and the size of the sherds. A single Beaker sherd was found on the surface of F14, which also produced Late Iron Age pottery from slot 4 at the junction with F28. Early/Middle Iron Age pottery was contained within F27, which cut F14. It is possible, therefore, that F14 belongs to this phase. Spatial analysis of the post-hole distribution in this vicinity has revealed four distinct structures. These are not contiguous with the ring gully F14 and structure 3 is unlikely to be contemporary with it.

The finds

The pottery

Jane Timby

Introduction

The excavations at Rainham yielded a modest assemblage of some 185 sherds of pottery and a small quantity of fired clay from 32 contexts. Discussion of the pottery is hampered by the fact that the material appears to represent several different periods of occupation extending from the prehistoric through to the post-medieval periods. Diagnostic sherds are unfortunately relatively few.

There is no apparent stratigraphic information to assist in the cultural and chronological discrimination of the fabrics. It should be noted that even with larger assemblages a certain amount of difference of opinion exists between different specialists as to the date of some sherds (cf Kinnes 1978; N. Brown pers. comm.).

The condition of the material was variable. Many of the sherds were extremely small, and due to the nature of the fabrics very friable. A number of pieces had fresh breaks. Only six contexts produced more than five sherds. With the larger groups in a number of cases several sherds derived from single vessels. In the following summary the material is discussed chronologically where this can be ascertained. For a number of contexts a date is suggested by analogy of fabric types, not particularly accurate due to the diversity of types used throughout the prehistoric period. Other contexts are simply noted as prehistoric.

Beaker

The earliest recognisable material comprises sherds of decorated beaker from contexts F10 (74) and F23 (151). The former context produced a single sherd tempered with sparse calcined flint grits. The surface was decorated with fingernail rustication (Fig. 5.1). The sherd is likely to come from a domestic beaker. Sherds with comparable decoration were found at Orsett, Essex (Hedges and Buckley 1978, fig 35. 99-100). A slightly larger complement of wares was recovered from F23 (151) comprising a minimum of four vessels. Of particular note were two decorated beakers (Fig. 5.2-3, 4-6). The first, reddish-brown in colour with rare fine flint and light-coloured sub-angular to rounded grog/clay pellets, was decorated with four horizontal lines of cord-impressed decoration. The decorative scheme possibly develops into a lattice pattern immediately below the break. A further six bodysherds of the same fabric from either the same, or similar, vessels were also present. Three of these were plain, one was decorated with three lines of cord-impressed decoration and two with comb-impressed lines. Two joining basesherds containing slightly coarser, denser flint were also present. A further vessel was represented by a slightly curved sherd, dark brown in colour with sparse flint; the surface was decorated with lines of spaced comb impression (Fig. 5.2). The second beaker comprising one rim, three basesherds and 24 bodysherds is red-brown in colour, the paste containing a common frequency of angular calcined flint. The surface of the vessel is covered in faint irregular lines of comb impressed dots (Fig. 5.4-6). Three other contexts produced unfeatured sherds which may also possibly be contemporary with the above: F16 (75), F4 (61) and F124 (153).

Description of illustrated Beaker sherds:

Abbreviations: E – exterior; I – interior; C – core

1. F10 (74) (a) One bodysherd, red-brown E/I, black C. Sparse calcined flint up to 2 mm in size. Decorated with finger-nail rustication. Probably from a domestic beaker. Date: Beaker
2. F23 (151) (a) Rim and joining bodysherd (fresh break) from a beaker with a slightly flaring rim. Red-brown E/I/C. Sub-angular to rounded grog/clay pellets and sparse fine flint. Decorated with horizontal lines of twisted cord impressions. Date: Beaker
3. One bodysherd dark brown E/I, black C. Sparse flint. Possibly broken on a slight carination. Decorated with lines of comb-impressed decoration. Date: Beaker
4-6. One rim, 24 bodysherds and three basesherds from one vessel, a beaker. Red-brown E/C, brown C/I. Coarse, hackley, friable fabric with a common frequency of calcined flint up to 3 mm in size. The surfaces of the bodysherds are covered in irregular lines of lightly impressed comb decoration. Date: Beaker.

Early Iron Age/ Middle Iron Age?

A small group of wares could be recognised with features characteristic of the Early Iron Age period; namely carinated jars and bowls with finger-tipped rims and in some cases vertical surface smearing on the body (Barrett 1978; Brown 1988). It would appear, however, that the same range of characteristics, namely finger-tipped decoration on similar forms continue into the Middle Iron Age in Essex, illustrated by the large collection of pottery of this date from Little Waltham (Drury 1978, figs 42-8). Identical forms to those found at Rainham occur in Period II assemblages from this site and it may be that the Rainham material should be regarded as similarly dating to the Early-Middle Iron Age phase. The fabrics are variable, tempering agents including sparse calcined flint, vegetation/organic material (as voids) and sand. Contexts containing material of this date include F10 (76), F13, F27 (92) and F37 (99). Possible comparable fabrics were recovered from F16 (81), F121, and F4 (59).

Description of illustrated Early Iron Age/ Middle Iron Age? sherds:

7. F10 (76) Rim with finger-tipping from a jar with a carinated shoulder. Dark brown-black E/I/C. Paste contains organic matter and sparse angular flint inclusions up to 3mm in size.
8. F10 (76) Rimsherd from a curved wall vessel with a finger-tipped rim surface. Dark brown E/I, black C. Hard sandy fabric with sparse organic voids, rare sub-angular flint. Laminar fracture.
9. F10 (76) Three rimsherds, one base and four bodysherds probably from one vessel. Orange-brown E, darker I, black C. Sandy clay with a sparse scatter of fine flint. Bowl with a slightly flaring rim and slight body carination.
10. F10 (76) Everted rim jar/bowl, black E/I/C. Fine sandy fabric with rare flint grits and macroscopically visible quartz sand grains. Well-smoothed on both the exterior and interior surfaces.
11. F10 (76) One carinated bodysherd from the shoulder area of a vessel. Vertically smoothed on the lower part. Red-brown E/I, black C. Finely micaceous clay paste with sparse fragments of fine angular calcined flint and a moderate frequency of fine quartz sand.

Other prehistoric sherds

A number of other undiagnostic handmade sherds were present which can only be broadly dated to the prehistoric period. These

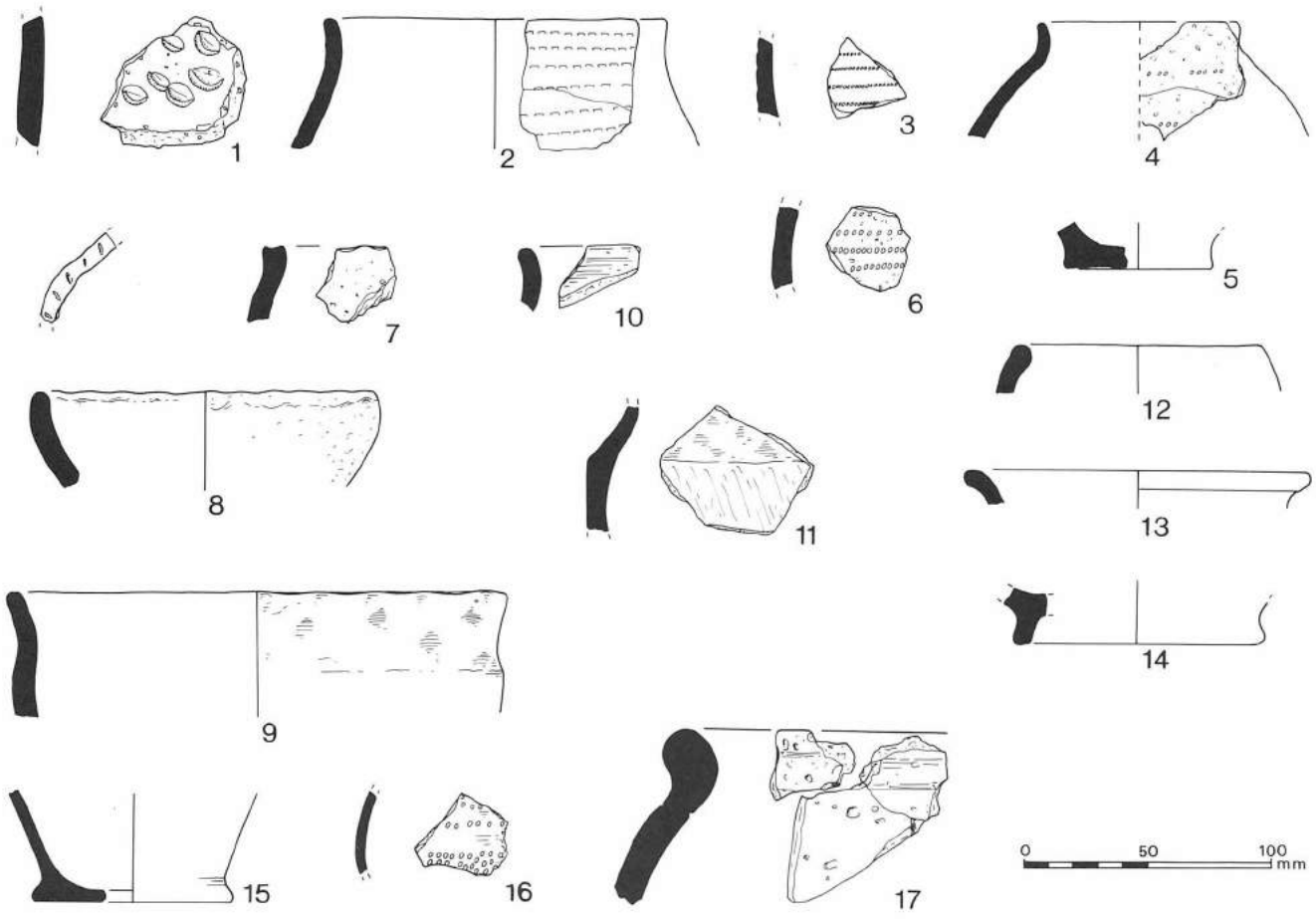


Fig. 5 Rainham Football Ground 1995. Prehistoric and Roman pottery.

came from the following contexts: F6, (68)/F24 (89), F12 (69), F13 (73), F36 (98), F123, F125 and unstratified finds.

Late Iron Age/Roman

Also present in the assemblage are a small number of sherds more characteristic of the later Iron Age, in particular beaded rim and everted rim jars (Fig. 5.12,13), and vessels with footstands, (Fig. 5.14), or slightly protruding feet (Fig. 5.15). Fabrics are again variable, and vessels both handmade, and wheel-finished. Of particular note is the wheelmade grog-tempered fabric seen in the jar (Fig. 5.13) from F7 (64). This ware, typical of the early 1st century AD, is found over a relatively large area, including Hertfordshire, and north Hampshire, with similar fabrics and forms at sites like Prae Wood (St Albans), Skeleton Green where it appears in the 1st century BC (Thompson 1982, 22 ff) and Silchester (Timby forthcoming). The same context F7 (64), produced a fragmentary rim from a flat-topped handmade vessel in a vesicular fabric once shell tempered, and 25 sherds including the base (Fig. 5.15) from a single dark brown, wheel-turned, sand and grog-tempered vessel. Eight of the sherds are decorated with lightly impressed dots (Fig. 5.16).

Less easy to place is a large thickened rounded rim jar in a very vesicular shell-tempered fabric (Fig. 5.17) from F11 (68) which may be prehistoric or Roman. Other sherds from this context would support a later Iron Age date with grog-tempered wheel-turned sherds. Just three wheelmade Roman sherds, mainly in grey and black sandy wares were recovered, from F126 and F129.

Description of illustrated Late Iron Age/Roman sherds

12. F11 (152) Two rim sherds and two bodysherds. Black E/I/C. Hard sandy fabric with sparse shell voids and occasional iron. Plain rim, internally thickened from a jar.

13. F7 (64) One everted rim from a wheel-turned necked bowl. Red-brown E/I, grey C. Fine grog/clay pellet temper. Smooth soapy feel.

14. F11 (152) (a) Two rim sherds and two bodysherds. Black E/I/C. Hard sandy fabric with sparse shell voids and occasional iron. Plain rim, internally thickened from a jar.

15-16. F7 (64) Four base sherds and 21 bodysherds from one vessel. Dark brown E/I, black C. Smooth, sandy fabric with occasional flat voids and dark grey-black grog/clay pellets. Smoothed exterior surface. Eight of the bodysherds carry decoration in the form of small impressed round dots.

17. F11 (68) Four bodysherds and one rim large rounded beaded rim jar. Very hackley, vesicular fabric from dissolved shell. Red-brown E, brown I, black E/C.

Acknowledgement

I am grateful to Nigel Brown (Essex County Council) for reading and commenting on this report.

The Coin
Paul Cannon
One coin came from F122 (155). This was worn and heavily corroded bronze (diameter = 26mm) probably an as of the 1st or 2nd century A.D.

The struck flint
Steve Ford
A total of 5 worked flints were found, including those from three possible Early Bronze Age features.

Fired clay/daub and burnt flint
Pieces of fired clay and daub were recovered from 10 contexts; F6/24, 7, 10, 11, 12, 23, 121, 124 and F126. In total this amounted to 4212g, with the greatest quantity from F6/24. In most cases the pieces were of rounded irregular amorphous shape and of fine sandy texture with rare tiny rounded pebbles. A total of 494g of fired clay/daub came out of 2 features; F6/24 and F11 both of Late Iron Age/Roman date. These pieces showed wattle impressions. A total of 2380g of burnt flint was also recovered from a variety of features.

Animal bones
Sheila Hamilton-Dyer
Animal bone was recovered from six features. The few fragments are not well preserved and a high proportion are of fragmented teeth or are calcined. Cattle, sheep/goat and dog are positively identified, with red deer possible.

Discussion

The fieldwork has recorded archaeological deposits representing activity over two millennia. The earliest activity is represented by the Early Bronze Age pit F23 and a number of finds of possible Early Bronze Age pottery within other features. A few struck flints may also belong to this phase. Beaker material is relatively scarce from the Rainham area and little is recorded in the Greater London SMR. A possible henge monument with a central burial pit was found at Great Arnolds Field, Rainham, the ditches of which produced Beaker and Mildenhall Ware pottery (Hedges 1980). Excavations at Gerpins Lane, Rainham, located another Beaker vessel (SMR 060051), whilst across the river two Beakers were recovered from Erith, Kent (Leeds 1922).

Aerial photography has found at least 26 ring ditches in the Rainham area and there is a concentration of them in the area to the east of the town (Lawson *et al.* 1981). Many of these could be of Early Bronze Age date. More substantial deposits at the Football Ground site are represented by features of Early/Middle Iron Age date. There is some evidence to suggest that the two large ditches F10 and F13 may represent consecutive phases of an enclosed site. Although few structural elements can be securely assigned to this phase, the time depth represented on the site and the superimposition of several post-hole structures indicates that some may be contemporary with the ditches. It is possible that this represents successive phases of Early/Middle Iron Age construction within an enclosed area.

A number of other sites of this period are known for the region. Settlement in the Late Bronze Age/Early Iron Age in Essex generally appears to have been of an open nature, although sites like Lofts Farm (Brown 1988) which was enclosed by this time indicate a degree of complexity which is not fully understood. Moorhall Farm, Rainham was a substantial Iron Age farmstead comprising at least 3 hut circles (Eddy 1980; Richardson 1980). Unenclosed Late Bronze Age/Iron Age settlement was also present at Hunts Hill Farm, Upminster, including 3-4 Early Iron Age round houses and a Middle Iron Age 6-post structure (062000 and 062184). Ditches of a similar date at Whitehall Woods, Upminster, appear to have divided the site into agricultural plots (Greenwood 1986). Early Iron Age material has been found at Hornchurch Aerodrome (*ibid.*) and at Manor Farm, North Ockendon, where a penannular gully was accompanied by an Iron Age field system (Priddy 1984). A Middle Iron Age round house was rebuilt at least 3 times near a possible droveway at Maybank Avenue, Hornchurch (Greenwood and Maloney 1992). The sequence of occupation at the Rainham Football Ground site is not fully understood but it is possible that an enclosed occupation site began in the Early Iron Age. If so, then it is unusual in an area characterised by open settlement at this time. However, it may be that the site was initially unenclosed and acquired its ditches in the Middle Iron Age, when sites such as Stifford Clays and Belhus Park, Aveley also became enclosed (Wilkinson 1988).

The final phase of activity on the site is of Late Iron Age/Roman date and comprises a series of pits and very probably the ring gully F14. A number of sites of this period are known for the area as well as many cropmarks which are also probably of this date. Sites such as Moorhall Farm consisted of a large triple-ditched enclosure containing ephemeral occupation evidence dating to the Late Iron Age. A Late Roman farmstead with a timber-lined well lay to the west (Eddy 1980; Richardson 1980). Another Late Roman farmstead was found at Corbets Tey/Harwood Hall Lane, Upminster (06009601).

Continuity from, or reuse of, Iron Age sites in Roman times is recorded at various sites such as Hunts Hill Farm (061992), Sunnings Lane, Upminster (Richardson 1983; Priddy 1984) and Manor Farm, where a field system was associated with Late Iron Age/Roman pottery (Priddy 1984). Further afield, Late Iron Age occupation of the Orsett Cock enclosure included at least two penannular gullies, possibly similar to the ring gully at Rainham Football Ground (Toller 1980). Finally, the SMR lists numerous stray finds of Roman date in the Rainham area and a burial ground was found at Mardyke Farm, South Hornchurch (Powell 1978).

The multi-phase activity present at Rainham

Football Ground can now be seen in the wider context of an area close to the Thames floodplain. This area appears to have been intensively settled throughout the prehistoric period and into Roman times.

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Medieval Boreham: excavations at the former Buxted Chicken Factory, Boreham, 1992-93

by Stuart Foreman

A small rescue excavation in Boreham village discovered traces of a series of early medieval rectilinear tofts aligned along the south frontage of the main Roman and medieval road from London to Colchester.

Introduction

A two-phase programme of archaeological investigation was carried out by Essex County Council (ECC) Field Archaeology Group in advance of a housing development by Moody Homes Limited on the site of the former Buxted Chicken Factory, Boreham (TL 7530 0997). The project was conducted in accordance with the guidelines set out in the Department of the Environment's Planning Policy Guidance Note 16 (PPG16): *'Archaeology and Planning'*.

A field evaluation, which took place in April 1992, involved the excavation of three trial trenches (Fig. 1; trenches A-C). Trench A, situated along the south frontage of the Main Street, was the only one to contain significant archaeological deposits, these being a group of early medieval boundary ditches concentrated at the east end of the trench (Lavender 1992). Following the granting of planning consent, a second phase of excavation in March 1993 investigated this section of the street frontage, in response to a brief prepared by the ECC Archaeological Advisory Group (AAG). An area of 225m^2 was excavated over a two and a half week period (Fig. 2). All fieldwork and post-excavation was funded by Moody Homes Ltd. Site records and finds are deposited in the Chelmsford and Essex Museum under site codes BCF92 and BCF93.

Background

Boreham is situated on the northern flank of the Chelmer valley, *c.*1.5km north of the river, at a height of *c.* 37m O.D., with the land sloping gently down from the main London to Colchester road towards the south. The natural subsoil was glacial boulder clay below a shallow capping of brickearth.

Nothing was known of the archaeology of the site, but there was potential for the location of prehistoric, Roman and medieval features because of its proximity to cropmarks identified in a field 0.5km to the south-west (Essex Sites and Monuments Record [ESMR] Number 5822) and its position adjacent to the main London to Colchester road. Roman pottery is recorded from Boreham churchyard and Roman tile is contained in the walls of the church, *c.* 0.45km to the south-east (Hull 1963).

The Domesday book of 1086 lists three separate manors within the vill of Boreham, as well as three manors called *Walcfara*, identified as either Walkfares or Walter Hall, which probably fall within the modern parish, indicating extensive late Saxon/early medieval settlement in the area. The largest estate, which included the church and may have included the Buxted Chicken Factory site, was 8 hides and 23 acres in extent and was held by Lambert from Count Eustace of Boulogne (Morris 1983). This estate developed into the manor of Old Hall, which was held by John de Boreham in 1221 (Morant 1768).

The excavations

Initially, three trenches (Fig. 1; A-C) were excavated to sample 2% of the development area. Trenches A and B were located along the frontage of the Main Street, and Trench C along the frontage of Church Road. The central part of the site was thought to have been severely disturbed by the construction and recent demolition of the chicken factory building. Trench A was the only one to contain significant archaeological deposits, in the form of a series of late Saxon/early medieval boundary gullies. This justified further work to identify the form and function of the boundaries and establish their place in the settlement history of Boreham village.

An area of *c.* 225m^2 was excavated, the north-west corner of which was set 7.5m back from the modern road line, coinciding with the south-east corner of evaluation trench A. First, *c.*0.3m depth of topsoil, and secondly 0.2m depth of post-medieval ploughsoil was removed by machine. 50% of all discrete features and sample segments of linear features were then excavated by hand.

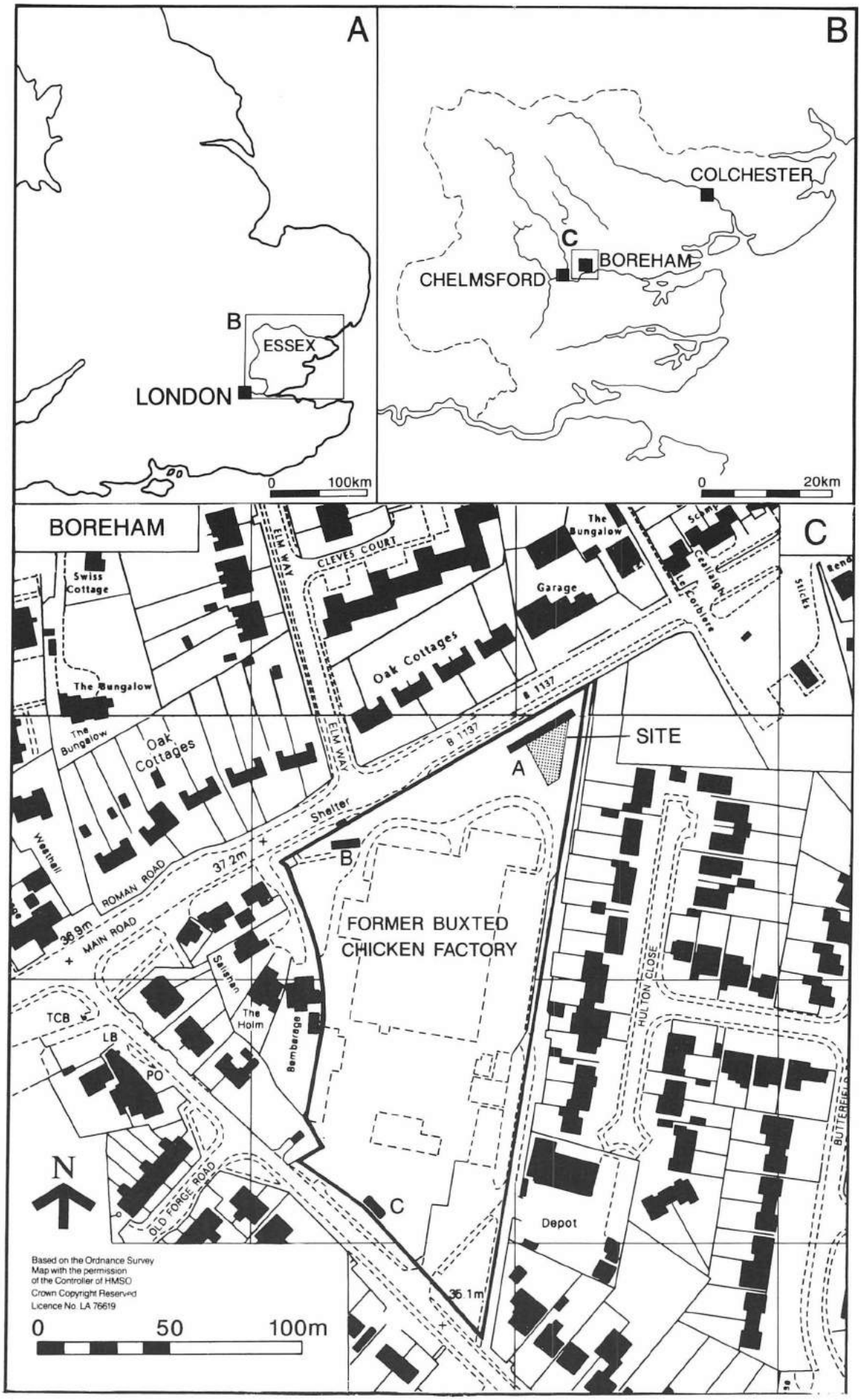


Fig. 1 Buxted Chicken Factory, Boreham. Site location, showing evaluation trenches A-C, and main excavation area (in stipple) adjacent to trench A. © Crown copyright 87584M.

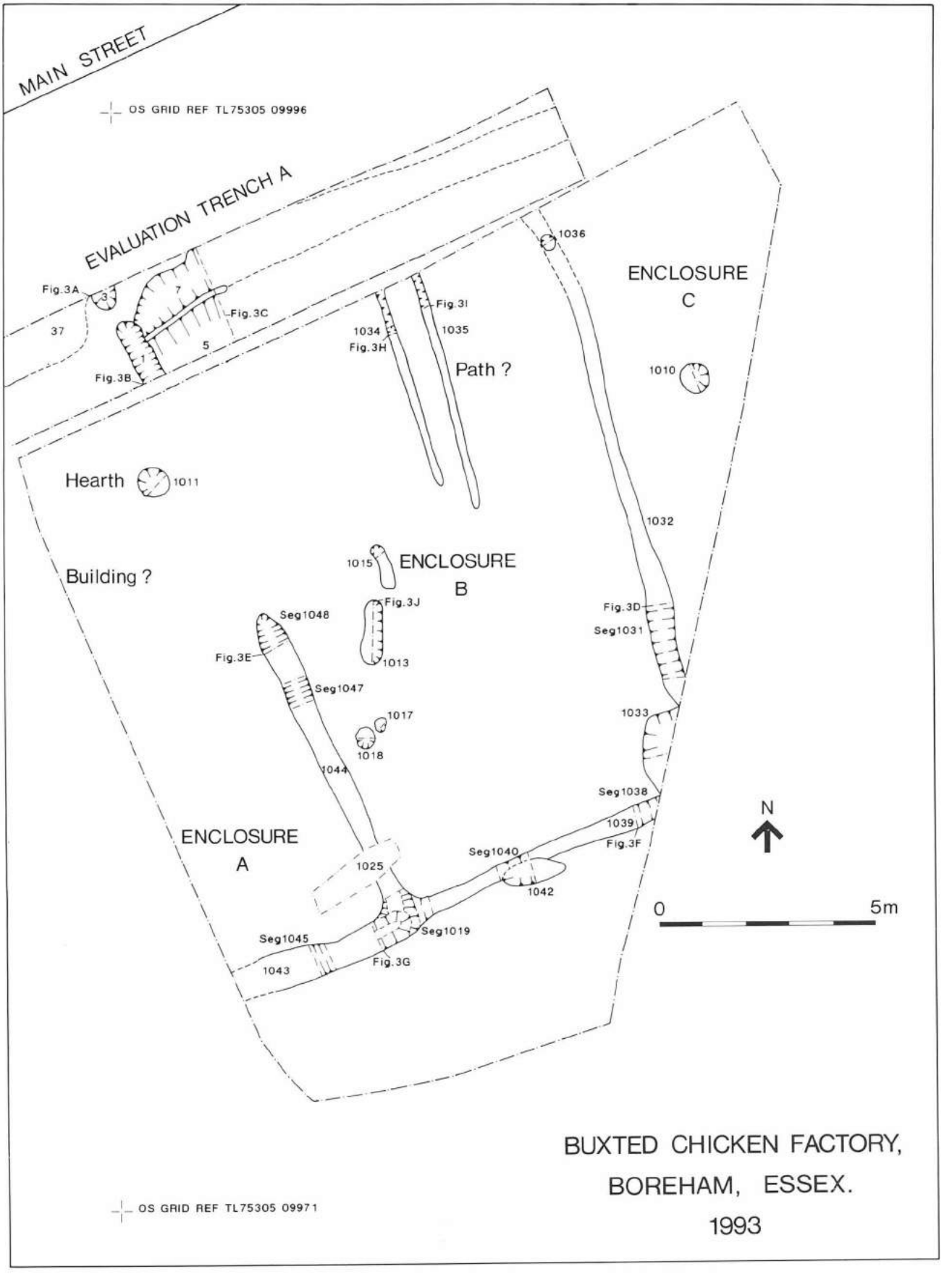


Fig. 2 Buxted Chicken Factory, Boreham. Site plan.

Description

The small quantity of Iron Age and Roman pottery found during the trial trenching was heavily abraded and was apparently residual in later features, but it does indicate an early presence in the vicinity.

The excavated area included part of a row of early medieval rectilinear enclosures, set out along the south side of the main road from London to Colchester. The enclosures were defined by shallow ditches, ranging from 0.10m to 0.49m in depth, laid out perpendicular to one another. It is uncertain whether the ditches represent property boundaries separating small, individual building plots, or whether they are sub-divisions of one or more larger tofts (a toft is defined as "a rectilinear enclosure which contained a dwelling and associated out-buildings" [Clarke 1984]). The three rectangular plots within the excavated area will be referred to as Enclosures A, B and C respectively (Fig. 2).

Evaluation trench A (Lavender 1992) contained several probable early medieval features (Fig. 1):

Features 1 and 3 formed part of a gully running perpendicular to the Main Street and continuing the line of ditch 1044 (Figs 2, 3A, 3B). The fill of feature 1 contained two sherds of early medieval shell-tempered pottery, dating from the 11th to 13th century, and one sherd of residual LIA material.

Two shallow, linear features (5 and 7) were aligned parallel to the Main Street. They were comparatively broad and it was possible to trace the line of feature 5 to the east end of the trench. No finds were recovered from features 5 and 7, which were only 0.14m and 0.10m deep respectively (Fig. 3C). It is possible that they represent the truncated remains of a ditch flanking the southern edge of the road. However, their shallow profile, and the fact that they do not continue further west than gully 1, suggest that they are more likely to be associated with the early medieval enclosures.

The ends of ditches 5 and 7 appeared to be cut by gully 1, suggesting that the ditches may pre-date the other enclosure boundaries. However, there is no ceramic evidence to support the existence of an earlier phase, and the observed relationship may be explained by a recutting of ditch alignment 1044/ 1.

Enclosure A (Fig. 2) was defined on its eastern and southern sides by ditches 1044 and 1043 respectively. These varied in depth from 0.49m to 0.22m, the deepest point being the terminal of 1044 (Figs 3E, 3G). The ditches contained a relatively uniform friable silty clay fill (26,44), except for the terminal of 1044 whose charcoal-rich fills (17, 22) included two fragmentary, thickened cooking pot rims of shell-tempered and shell-and-sand-tempered wares. The same deposit contained three metal finds, all of iron: an oval plate fragment, possibly part of a strap fitting, a nail shaft, and a tapering bar fragment, possibly part of a tang from a tool. This deposit probably represents a domestic rubbish dump, and is confined to the terminal of ditch 1044.

A small hearth (1011) was observed in the north-east corner of Enclosure A. It comprised a shallow, circular cut containing burnt, reddish brown silty clay (16). It contained no finds, but was stratified below the post-medieval ploughsoil layer (10) and is probably early medieval (Fig. 2).

There was a 5.6m gap separating the well-defined terminal of ditch 1044 and feature 1, although the two features clearly form part of the same boundary alignment. This gap could be seen as linking two parts of a single toft comprising Enclosures A and B.

Hearth 1011 may be circumstantial evidence for the presence of a building, occupying Enclosure A. There was no indication of a floor surface within enclosure A, but the site had suffered severe post-medieval plough damage, indicated by parallel marks in layer 10, and five mole drains cut across the site. Even if flooring was present originally, it would be unlikely to have survived under such conditions. The absence of even truncated structural features indicates that the postulated building may have been founded on shallowly embedded sleeper beams. The ditches defining the enclosure had variable depths and had been used for rubbish dumping, suggesting that they were not building foundation slots. They could, however, be eavesdrip gullies for a substantial building fronting onto the Main Street. This would certainly explain the presence of hearth (1011), and the termination of ditches 5 and 7 at the western edge of Enclosure B.

Alternatively, the building could be a structure of a different 'footprint', occupying the north-east corner of Enclosure A, with its east wall filling the 5.6m gap between ditches 1 and 1043 (see discussion below).

Enclosure B (Fig. 2): the full 8.75m width of this enclosure was within the excavated area. It had a minimum length of 13.5m and a probable maximum length of 21.5m (measured to the edge of the modern road line). The Enclosure was defined on its western side by ditch 1044 and on its southern and eastern sides by ditches 1039 and 1032 respectively. The latter were significantly shallower than the boundary ditches of Enclosure A, ranging from 0.16m to 0.10m deep (Figs 3D, 3F). This may suggest that the two enclosures were laid out at different times. However, since ditch 1039 and the Enclosure A ditches were filled with an identical mid yellowish brown silty clay fill, indicating that they were back-filled at the same time, this relationship cannot be proved stratigraphically. The difference in depth may be accounted for by a recutting of 1043 and 1044.

Two narrow, parallel gullies (1034, 1035), 0.7m apart and aligned perpendicular to the main road, ran from the northern limit of excavation for a distance of c. 5.25m into the centre of Enclosure B (Figs 2, 3H, 3I). The gullies were not visible in evaluation trench A. This may be because they were cut by ditch 5, but it is more likely that they were obscured by the fill of that feature, since fills on this site were usually indistinguishable from one another. The gullies may have served a drainage function, flanking a pathway giving access to the enclosure from the Main Street.

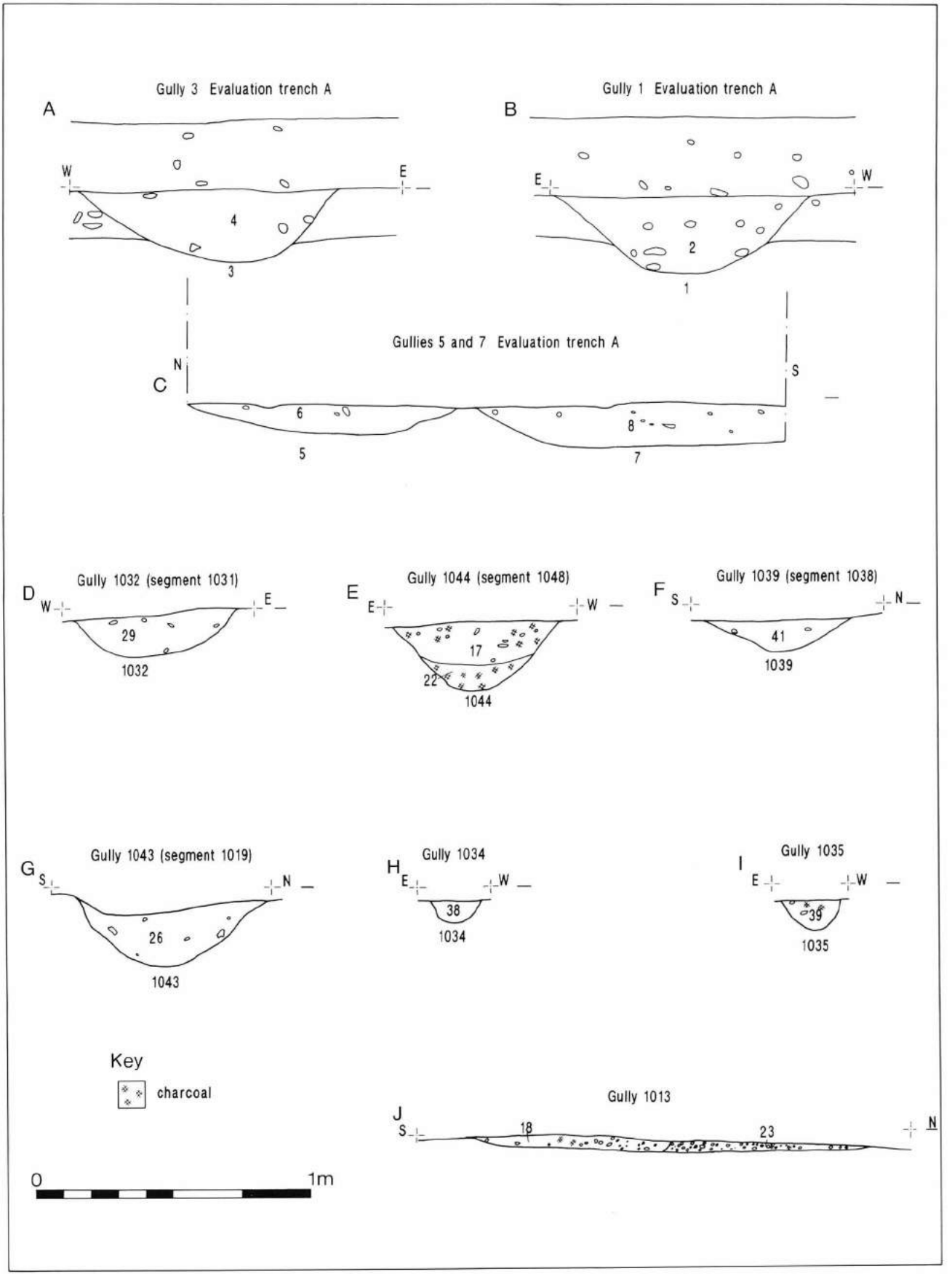


Fig. 3 Buxted Chicken Factory, Boreham. Sections.

A group of very shallow features, comprising two post-holes and two sections of a severely truncated, irregular linear gully, were observed towards the western side of Enclosure B (Figs 2, 3J). The gully sections (1013, 1015) produced early medieval body sherds from the same pot, indicating that they were open at the same time. They may in fact be truncated remnants of a single feature. The two post-holes (1017 and 1018) were very close together and appeared to be in alignment on a north-south axis with gully 1013/1015. Although their orientation is different from the main site alignment, it is possible that this group of features represents the traces of a building within Enclosure B.

A large, shallow, sub-rectangular pit (1033), which was partly obscured beyond the eastern limit of excavation, appeared to occupy the south-east corner of Enclosure B (Fig. 2). It was filled by a dark yellowish brown silty clay (37), containing an unusually high proportion of flint and gravel. Since it contained no finds it is unlikely to have served as a rubbish dump, and a structural function also seems unlikely. The feature could be a drainage sump however, since the clay subsoil and the slope of the ground would have led to standing water collecting in the southern boundary ditches of the enclosures, and a sump may have been necessary to prevent them from overflowing in wet conditions.

Ditch 1039 was cut on its south side by a shallow, elongated, irregularly shaped pit (1042) of unknown function. This feature was filled by a dark yellowish brown silty clay loam (43), and contained no finds.

Although ditches 1043/1044 and ditch 1039 had markedly different profiles, the fill of intersection 1019 was uniform throughout, indicating that the ditches were back-filled at the same time (Fig. 2).

As with enclosure A, identifying the function of the enclosure B boundary ditches (1032 and 1039) is problematic because of a lack of evidence. They could be seen as eavesdrip gullies for a building, occupying the whole of the enclosure and adjoining the postulated building in Enclosure A. However, the ditches are markedly shallower than 1043 and 1044 and less regular in plan. In addition, the postulated path (1034, 1035), suggests that at least the northern part of the enclosure was not built on. The enclosure is perhaps best interpreted as a yard, attached to Enclosure A.

Enclosure C (Fig. 2) was defined on its west side by gully 1032. The gully was not visible in evaluation trench A. This may indicate that it was cut by ditch 5, but it is more likely that the identical appearance of the fills of ditches 5 and 1032 obscured the relationship.

Only a small portion of Enclosure C was within the excavated area. It contained a single feature (1010), which was a shallow, circular cut, 0.68m in diameter, whose edges were defined by a dense charcoal deposit (15). The central fill was a dark yellowish brown silty clay (14). The feature contained no finds but was below the ploughsoil layer (10) and is probably of early medieval date. It may be the truncated remains of a substantial post-hole. This is insufficient evidence to indicate the layout or function of enclosure C.

Three sherds of 13th/14th-century pottery were found during machine stripping of the topsoil, in unstratified deposits. The low density of finds and lack of features dated to this period indicates that this stretch of street frontage was not occupied in the later medieval period.

The excavated area had suffered from extensive disturbance in the post-medieval and modern periods, including plough damage to a depth of *c.* 0.4m below the present ground surface, the digging of five modern field drains to a depth of *c.* 0.5m, and two deep modern pits. In the late 19th or 20th centuries, a wooden shed had been built over the SW corner of the site.

The pottery
Helen Walker

A small amount of pottery, 60 sherds weighing 389g, was excavated. The material has been classified using a pottery typology developed for Essex by Cunningham (1985, 1-16), and Cunningham's fabric numbers and rim-form codes are quoted in this report. The pottery present is summarised in Table 1.

Table 1 : Quantification of medieval pottery by fabric.

Feature	Fill	Segment	12A	12B	13	21	35	40	Wt.
Unstrat.	1		-	-	2	2	1	9	132g
Gully 1	2		-	-	2	-	-	-	-
Post-hole 1006	2		-	-	-	-	-	1	3g
Layer 10	-		-	-	1	-	-	-	5g
Ditch 1043	26	1019	3	2	1	-	-	-	19g
Ditch 1044	17	1048	7	16	3	-	-	-	153g
Ditch 1044	22	1048	-	2	-	-	-	-	11g
Ditch 1032	29	1031	-	2	-	-	-	-	6g
Post-hole 1018	25		-	2	-	-	-	-	2g
Gully 1013	18		-	3	2	-	-	-	49g
Gully 1015	20		-	2	-	-	-	-	9g

Key to fabric classification

Fabric 12A	Shell-tempered ware
Fabric 12B	Shell-and-sand tempered ware
Fabric 13	Early medieval ware
Fabric 21	Sandy orange ware
Fabric 35	Mill Green ware
Fabric 40	Post-medieval red earthenware

All the pottery stratified below the post-medieval ploughsoil (layer 10) is early medieval; unfortunately no fine wares are present, making close dating difficult. Fabrics comprise shelly wares (fabrics 12A and B) and early medieval ware. Of these, shell-and-sand tempered ware (fabric 12B) is the most common. These fabrics are described by Drury (1993, 78-80), and are typically low-fired and coil-built. Their extreme date range is the 10th to 13th century, though in practice, sherds belonging to the earliest part of this date range are rare.
Gully 1013 (fill 18) produced a thickened rim (Cunningham's sub-form B1) from a fabric 13 cooking pot; unfortunately it is too fragmented to measure the rim diameter or to merit illustration. Gullies 1013 and 1015 produced body sherds belonging to the same vessel, indicating that these features were open at the same time.
Context 17, the upper fill of segment 1048, at the terminal of ditch 1044, produced the largest group of pottery from the site. Two more thickened cooking pot rims were found, one in fabric 12A and one in fabric 12B. They are both very fragmented. Fill 22, stratified below 17, produced similar pottery and cannot be demonstrated to have been deposited earlier than the upper fill.
The pottery found in ditch 1043 is again very similar to that from ditch 1044, even though ditch 1043 is stratigraphically higher. However, as the pottery from the latter ditch was excavated from segment 1019, which intersects ditch 1044, then the finds may actually derive from the earlier feature. No pottery was found in other segments dug through ditch 1043.
The two sherds of fabric 12B excavated from ditch 1032 (fill 29) are unlike those from the rest of the site, in that they contain crushed flint as well as shell-and-sand tempering. It is not possible to determine whether this pottery is contemporary with the rest.
The ploughsoil (layer 10) produced a single sherd of early medieval ware. A sherd of post-medieval red earthenware was found in the fill of post-hole 1006 (fill 2), which was part of the modern shed (structure 9). Post-medieval red earthenware is very long-lived, dating from the 16th to 19th centuries, with little change in fabric. This sherd is internally glazed, a feature current from the late 16th/17th century onwards. However, a single sherd cannot be used to date a feature.
Unstratified pottery from context 1 comprises further sherds of early medieval ware, including the beaded rim from a cooking pot (Cunningham's sub-form C1). Two sherds of sandy orange ware were also found. Sandy orange ware is a general category for any locally made sand-tempered oxidised fabric. One sherd shows cream slip-coating, and is probably late medieval. There is a tiny sherd of Mill Green Ware; this was an important industry from the mid-13th to mid-14th centuries and is described by Pearce *et al.* (1982). It was made at kilns near Ingatestone in central Essex. The sherd is very abraded but shows traces of cream slip-coating. The remainder of the pottery is post-medieval red earthenware, and the only featured sherd present is a glazed horizontal handle probably from a storage jar, dating from the 17th century or later.

Discussion of the early medieval pottery

The only datable sherds from features below layer 10 are the three thickened cooking pot rims which are generally datable from the 11th century, but could still have been current in the earlier 13th century. The unstratified beaded cooking pot rim probably dates from the 12th to 13th century and could be contemporary with or later than the stratified material. All the pottery, with the exception of the two flinty sherds, is very similar in appearance and could have been deposited at the same time. The assemblage probably represents domestic rubbish.

Miscellaneous finds
Hilary Major

The only metal finds were iron. Apart from the unstratified material (context 1), all of the iron came from context 17, dated by pottery finds to the 11th-13th century. Smallfinds (SF) 2, 3 and 4 were X-rayed by A-M. Bojko (Colchester and Essex Museum). None of the metal finds were of sufficient interest for illustration.

Table 2: Miscellaneous Finds

Context	SF Number	Description
1	U/S	Miscellaneous iron objects, none of which are necessarily very old. All could be 20th century:
		6 nails, one of which probably has a circular shaft; 2 fragments, probably nail heads; 1 fragment, probably a domed bolt head; roughly rectangular fragment, 28 x 23 x 2mm; horseshoe fragment with a calkin (post-medieval).
17	SF 2	Oval plate fragment, with a short, slightly curved projection at one end. Not identifiable, but possibly part of a strap fitting. 48 x 20mm.
17	SF 3	Nail shaft. Length 33mm.
17	SF 4	Tapering bar fragment, point missing. This is probably part of a tang from a tool, although it could be a nail shaft. Length 42mm.

Discussion

There is no evidence that the Buxted Chicken Factory site was occupied before the early medieval period. The small quantity of Roman and Iron Age material recovered was residual in later features. It may perhaps derive from a settlement in the vicinity of Boreham Church, where Roman brick and tile has been found in the church walls, and Roman pots are recorded from the churchyard (Hull, 1963).

The only evidence for settlement was a row of early medieval rectilinear enclosures, set out along the south side of the main London-Colchester road.

Although no obvious structural features were identified, the presence of a hearth in Enclosure A, and a rubbish deposit in the terminal of ditch 1044, indicates domestic occupation.

At sites of the late Saxon and early medieval periods in Essex, hearths have almost invariably been found inside buildings and are usually associated with domestic activity: A late Saxon hall complex at Springfield Lyons, in the neighbouring parish of Springfield, included a large building, interpreted as a 'focal dwelling', which contained a hearth at the western end of the main room (Buckley and Hedges 1987). Two hearths were identified at a 13th-14th century farmstead site near the Boreham Interchange, Springfield: one was probably within a building,

though the plan of the structure was uncertain, and the other was located at the south-eastern end of a small, 'post and slot' building (Allen and Lavender 1992, and pers. comm.). At Stebbingford, in Felsted Parish, a hearth was located at the western end of a post-built house (Medlycott 1996). Molehill Green, a 13th-century settlement site at Stansted Airport, offers an exception to this rule; a 'cooking pit' was found outside the main dwelling. However a small hearth was also found inside the building, located south-west of the centre of the living area (Brooks and Wall 1986).

In the light of this evidence it is likely that hearth 1011 indicates the presence of a building in Enclosure A at Boreham. However, there is no direct archaeological evidence to indicate its plan or function. The examples quoted above suggest a preference for siting hearths at the end of the living area. This lends slight support to the suggestion that a building filled the 5.6m wide gap between gullies 1 and 1044. This location and orientation would place the hearth close to the western end of the structure. However, an alternative interpretation suggests that the boundary ditches of Enclosure A were in fact eavesdrip gullies serving a substantial building fronting onto the Main Street. In either case, the absence of surviving structural features demands that any such building must have been founded on cill-beams, either bedded in shallow slots that have since been ploughed out, or resting on the ground surface.

The use of cill-beams can be paralleled on several excavated settlement sites of the late Saxon and early medieval period in Essex, but are only detectable in cases where the beams were originally embedded in slots. Post-built structures appear to be more common, but this may be due to the fact that cill-beams laid directly on the ground surface may leave little or no archaeological trace. Eavesdrip gullies have been found accompanying both structural forms, though they are by no means universal and are sometimes difficult to distinguish from cill-beam slots.

At Springfield Lyons, 13 late Saxon structures were represented, demonstrating a range of timber construction techniques. Post-built structures were most common, but four structures included gullies which could have been either eavesdrip or cill-beam slots (e.g. structure L, Buckley and Hedges 1987, fig.19, p26). At the Boreham Interchange, a post-built rectangular building was surrounded on three sides by substantial eavesdrip gullies. A second, smaller structure appears to have been of post-and-slot construction, and was partly enclosed by eavesdrip gullies (Allen and Lavender, *pers. comm.*). At Stebbingford, in Felsted parish, a group of 12th to 14th-century farmstead buildings exhibited a range of construction techniques, including the use of post-holes, slots and eavesdrip gullies (Medlycott 1996).

The size of the postulated building in Enclosure A is unknown. However, two possible dimensions may be suggested. A building occupying the full area of enclosure A, utilising the boundary ditches as eavesdrip gullies would have a minimum length of 16m, and a possible maximum length of 20.5m (measured to the modern edge of the Main Street). A smaller building occupying the gap between ditches 1 and 1044 would have a width of 5.6m.

By comparison, the largest building at Springfield Lyons, was a post-built hall, measuring 20.8m x 6.1m, while the smallest structure measured 4.0m x 3.3m (Buckley and Hedges 1987). At the Boreham Interchange, the larger of the two well-defined buildings measured *c.*13m x 6m (Allen and Lavender, pers. comm.), while at Round Wood, Stansted Airport, the largest of three buildings measured *c.*17m x 11m (Brooks and Havis 1989). A post-in-slot building of the 10th-12th century at Chignall St.James, interpreted as a farm building, measured 5.5m x *c.*6.3m (Brooks 1992).

Both suggested dimensions for the postulated Enclosure A building fall within this range. However, it may be significant that the buildings at the top end of the range invariably use earth-fast posts for their main support, while buildings using foundation slots appear to have an upper size limit. The dimensions of three late Saxon buildings at Springfield Lyons, described as of slot, or post-and-slot, construction were: 5.4m x 4.2m, 5.9m x 4.3m and 6.4m x 4.2m (Buckley and Hedges 1987). Similarly, the 13th-14th century post-and-slot building at the Boreham interchange measured *c.*10.5m x 6m (Allen and Lavender, pers. comm.). Along with the position of the hearth, this may lend support to the idea of a smaller (5.6m wide) building occupying the gap between ditches 1 and 1044.

The enclosures appear to belong to a single phase of activity, suggesting that occupation of the street frontage was comparatively short-lived. The only three datable sherds from deposits directly associated with the early medieval occupation were three thickened cooking-pot rims which are generally datable from the 11th century but could still have been current as late as the 13th century. The small quantity of finds generally supports the suggestion that occupation of this stretch of the street frontage was short-lived. Site B at Chignall St.James, included what is thought to be a farm building of the 10th to 12th century. Although only a small quantity of pottery was recovered, the majority of excavated features produced some material, suggesting a higher density of finds than at the Buxted Chicken Factory site (Brooks 1992). However, the late Saxon hall complex excavated at Springfield Lyons, was apparently occupied for an extended period, yet produced a comparatively small amount of pottery, despite its presumed high status (Buckley and Hedges 1987). By contrast, low status medieval settlement sites of the 13th-14th century in Essex, such as Stebbingford (Medlycott 1996), and the Boreham Interchange (Allen and Lavender, *pers. comm.*), have produced comparatively large pottery assemblages, suggesting an increase in pottery availability between the 11th and

13th century. In the light of this evidence, the scarcity of pottery at the Boreham site could indicate either an early (11th-12th century) occupation of undetermined length, or a somewhat later (12th-13th century), but short-lived period of occupation.

The establishment of the rectilinear plots, at some time between the 11th and 13th centuries, represents a significant expansion of the village along the south side of the main London-Colchester road. The enclosures are aligned side by side along the street frontage, in the manner of burgage plots in towns, implying that they were occupied by households with some economic reliance on traffic using the road.

It is possible that this layout represents some degree of 'village planning'. Examples of planned villages are becoming increasingly well-known, particularly from the north of England where recent work has been concentrated (Astill and Grant 1988). Analogies could also be drawn with larger medieval planned settlements such as Braintree, Witham, Chelmsford or Brentwood (Rodwell 1993; Eddy and Petchey 1983). It will be noted that the latter three are all located along the main London to Colchester high road. Such planning episodes in Essex occur in the period between 1180 and 1260 (Petchey 1980), perhaps suggesting a date range for the establishment of the Buxted Chicken Factory site. A date in the late 12th or early 13th century would be consistent with the limited ceramic evidence, but as discussed above, would indicate a short-lived occupation.

Excavations at Chelmsford have shown that plots laid out as part of a late 12th century planned development, initially had a frontage of 2½ rods (*c.*12.6m), but were immediately amalgamated into a 5 rod unit in the area examined (Webster and Cherry 1973). In comparison, the width of enclosure B at the Boreham site (8.75m) seems too narrow to be described as a toft in its own right, but it may be a sub-division of one. It is perhaps best interpreted as a yard attached to Enclosure A, which, as discussed above, was probably a building plot. The toft, defined as a rectilinear enclosure which contained a dwelling and associated outbuildings, was a normal feature of medieval village organisation, regardless of the wider settlement pattern. A croft was an extension of this enclosure to form a small field. For the poorest class of villeins, the bordars and cottars, who rarely had the right to cultivate strips in the common fields, the ownership of a croft allowed them to supplement their earnings as wage labourers with their own produce (Clarke 1984).

In the case of the Buxted Chicken Factory site, there is little evidence for the activities carried out in the tofts. A commercial function is suggested by the roadside location of the site. This position contrasts markedly with farmstead sites near major high roads, such as Stebbingford or the Boreham Interchange, which are set at some distance back from the road line (Medlycott 1996; Allen and Lavender, *pers. comm.*). Some domestic occupation is also indicated (see discussion above).

Tenants involved in small-scale craft industries could have benefited from a road-side location. This was certainly the case at Witham, where a mid-13th century rental, listing half acre and one acre plots in the Templars' new roadside settlement of Wulvesford, included names such as John the taylor, Henry the baker, Constance the glover, John Pottesmonger, Adam Saltster, Hugo the merchant, Reginald the butcher, Geoffrey the sawyer and Geoffrey the cooper (Ryan 1993).

The medieval focus of the village was that stretch of Church Road adjacent to the parish church and the Old Manor House, *c.* 0.5km south-east of the Main Street and the Buxted Chicken Factory site. Church Road and Plantation Road form a loop, "by-passing" the Main Street to the south. This plan is clearly visible on maps of the area until as late as the 19th century (Ordnance Survey 1881). It is not an uncommon feature of village street plans where settlements are located on major highways, since there is known to have been a late Saxon prohibition against building closer than two perches from the street frontage of such arterial routes. Fear of strangers may also have contributed to this village plan (Vince 1990). However, the Roman finds from Boreham churchyard raise the possibility that this street pattern has a much earlier origin (Hull 1963).

If the analogy with larger planned settlements elsewhere in Essex is accepted, the Buxted Chicken Factory site should be seen as a landlord initiated attempt to develop the village into a commercial focus, by planting a series of house-plots along the main London to Colchester Road. Similar initiatives, for instance at Witham and Brentwood, were soon followed by the granting of market charters, and the growth of the settlements into towns. At Brentwood, on the edge of South Weald Parish, the monks of St.Osyth were given leave to assart in 1184. They built a chapel in 1221 on the south side of the London to Colchester Road, and obtained a market charter in 1227, to confirm their new foundation (Round 1924).

At Boreham, however there is no evidence of later medieval or post-medieval occupation on this stretch of the Main Street frontage. Although in the post-medieval period a tenement existed in the triangular plot at the junction of Church Road and the Main Street, the historic core of the village, on Church Road, was not superseded until the twentieth century (Morant 1768). This suggests that the medieval street frontage settlement failed to develop commercially and was abandoned. The archaeological evidence is consistent with a short-lived occupation.

On the 1st edition Ordnance Survey map (1881), the site is shown under open fields. The Buxted Chicken Factory was built on arable land between 1961 and 1964 (ERO). The small rectangular shed built over the south-west corner of the site is probably an out-building associated with the factory.

Acknowledgements

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Essex Archaeology and History **28** (1997), 113-116

Medieval kitchens in Essex

by D. F. Stenning

A recent volume of *Essex Archaeology and History* included an article describing a detached medieval kitchen at Great Yeldham (Crossan and Christie 1995). A number of buildings have been identified as kitchens over recent years and this article provides a review of current knowledge.

Such kitchens appear to have been associated with smaller dwellings of the 'hall and two cross-wing' type, but the issue is sometimes complicated by the absence of the putative parent house.

Whilst the following 14 buildings represent the only reasonably convincing examples known to the author, it seems probable that they were once relatively common. Mr David Martin has found similar structures in East Sussex (pers. comm.). It is suggested that in houses of this status, the hearth in the open hall served primarily for heating. Cooking and associated activities, such as brewing and dairying, were relegated to a separate kitchen for reasons of both practicality and politeness. The fire-risk associated with cooking is usually cited as an important factor. At present, it is not clear how far down the social scale such a practice obtained, but it is likely to have been widespread within the determining social constraints.

The relative lack of survivors may reflect imperfect observation, extensive alteration or a particular vulnerability to obsolescence. It has also been noticed that certain houses of this type incorporate a smaller kitchen as part of a service wing. Such examples, not illustrated here, make use of a single bay hall and adjoining single bay flue. With such a small number of examples, it is unclear whether the attached or detached variants represent alternative approaches or stages in an evolutionary process. With the great monastic or secular kitchens, such as Glastonbury or Fontevrault, it does seem likely that the detached, low fire-risk version preceded the later, more convenient attached form.

All the examples mentioned here have, in common, an open hall of one or two bays, generally supplemented by a floored bay at one end. Clearly, they ought to be considered as a vital part of a dwelling, which would have been functionally incomplete in their absence.

1. High Trees, Lexden Road, West Bergholt
High Trees is a substantial medieval house involving a number of builds and with the usual pair of cross-wings. That to the north is the 'service' wing and this has an open frame to its rear ground floor, clearly intended to provide access to another building. Today, this gives access to a somewhat later (? early 16th century) attached kitchen block, with a loft chamber, with its front open to a two-bay 'hall.' Its carpentry style differs from that of the cross-wing, in that it has a crown-post roof of somewhat utilitarian design, rather than short, high braces of the wing, which have a Suffolk character. It seems likely that there were a pair of opposed, flank wall doors, close to the abutment with the cross-wing.

2. Virginia Cottages, Lexden Road, West Bergholt
Some 50 metres from High Trees is a small pair of cottages, currently being renovated, set well back from the road frontage. Part of the cottages comprises another kitchen block, earlier than, but somewhat similar to, the High Trees example. The hall had a cross-passage, with opposed doors and an end chamber, only remnants of which survive. Either this building was fully detached or it was attached at right-angles to its parent cross-wing. Could this be a forerunner to the High Trees kitchen, moved and converted to form a small house? While this seems possible, there would have been little advantage in replacing a perfectly good kitchen in such a short space of time.

3. Lincolns, Lincolns Lane, South Weald
This is one of the most complete survivals. It has a small end loft and arch-bracing as one would expect, being in the south-western quarter of the county. The hall has opposed flank doors and there is an extra high-level truss, presumably to support some form of hearth hood. The location, well in front of its late medieval house, is surprising, and suggests that it may have been moved from its original position.

4. Parsonage Farmhouse, Church End, Stebbing
This is one of the giants among kitchens and must have served a very large household. The end bay has separate chambers on each floor and this was practicable given the large size of the hall.

5. No.1, The Street, Messing
This example has a single bay hall and is improbably

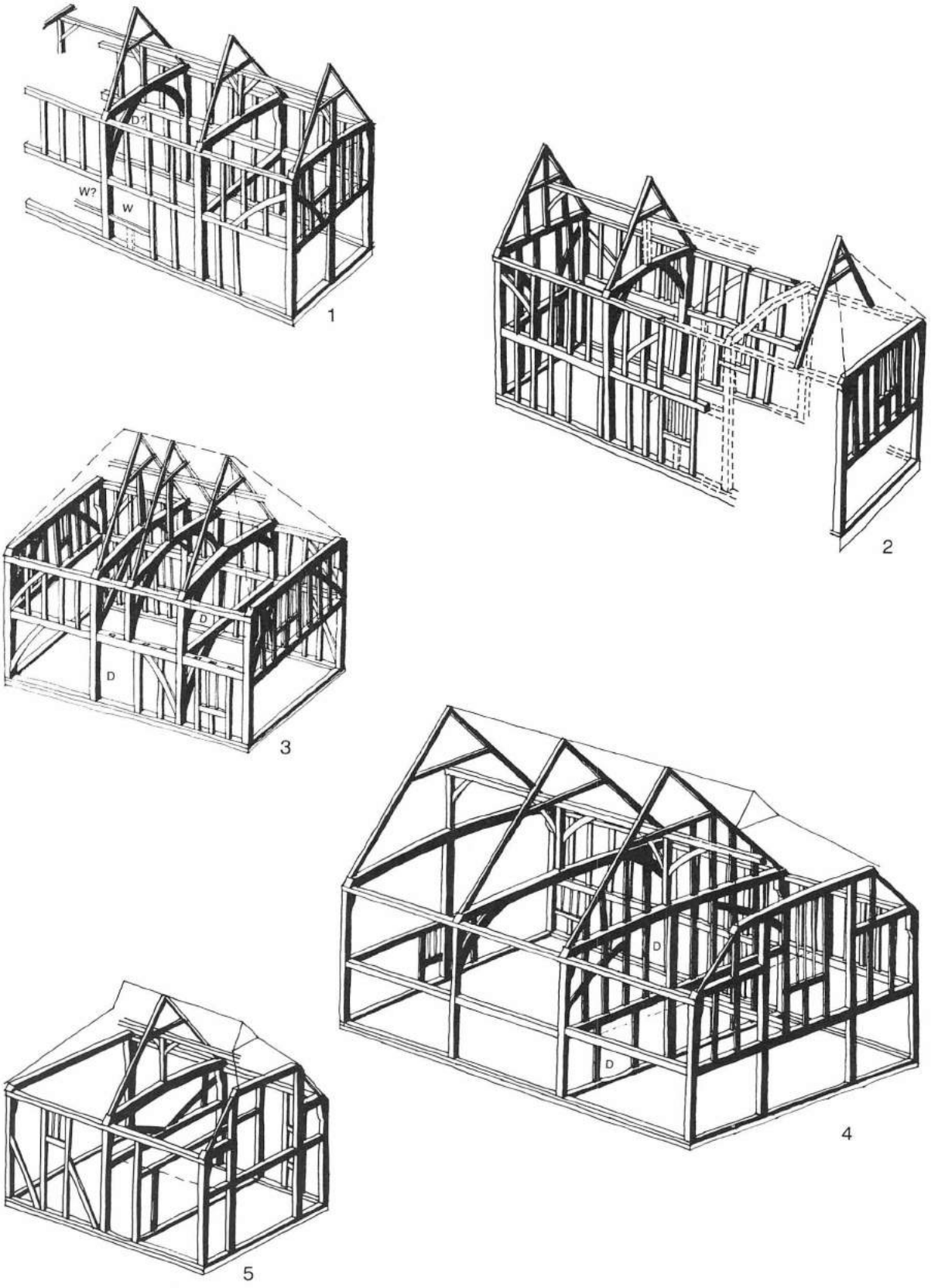


Fig. 1 1 High Trees, West Bergholt; 2 Virginia Cottages, West Bergholt; 3 Lincolns, South Weald; 4 Parsonage Farmhouse, Stebbing (based on a drawing by the late M. Wadhams).

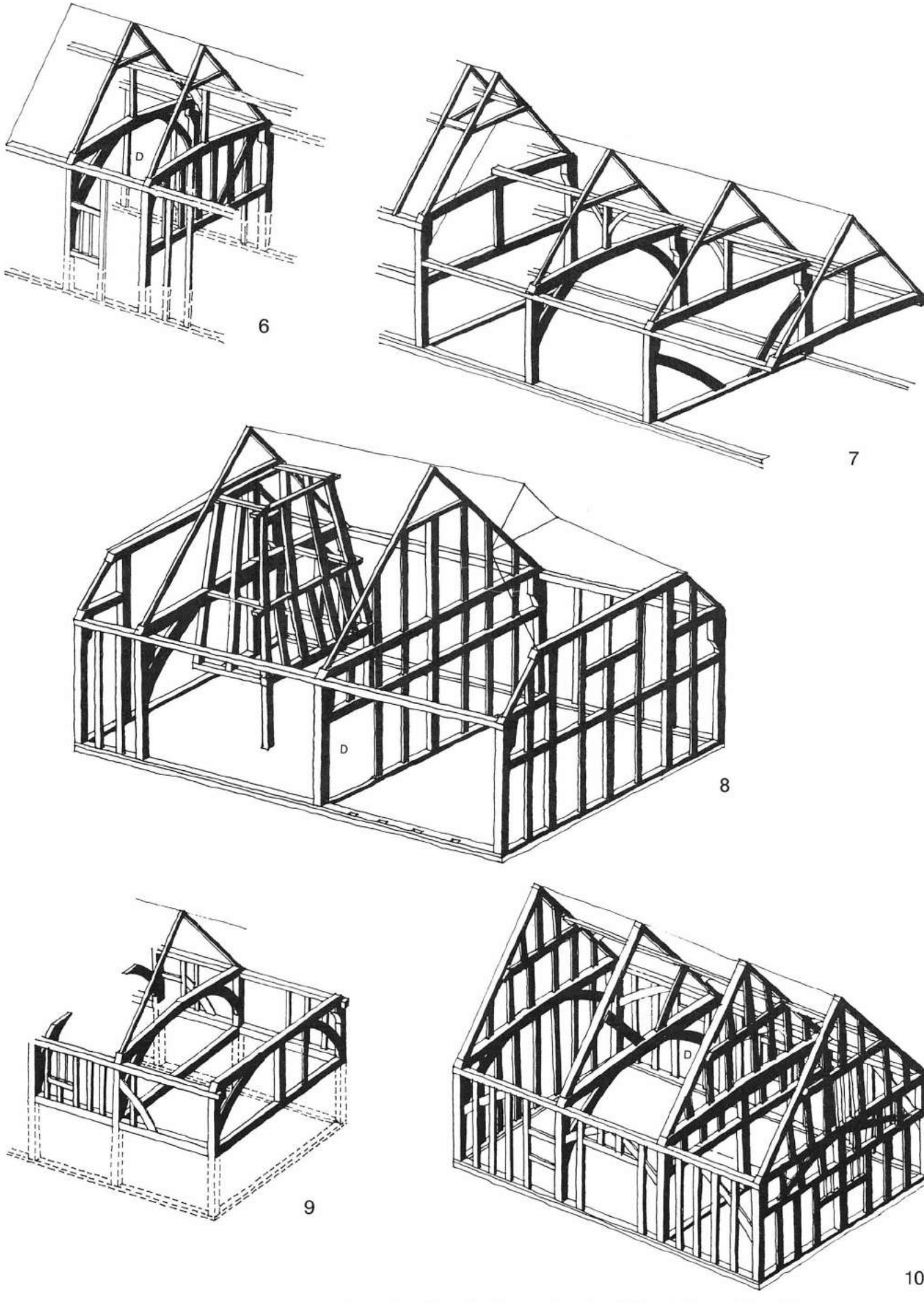


Fig. 2 5 No. 1, The Street, Messing; 6 Yew Tree farmhouse, Messing; 7 Brook House, Great Dunmow; 8 Chopyns, Broomfield (based on a drawing by the late M. Wadhams); 9 Littlebury Hall, Stamford Rivers; 10 Hancocks, Moreton (based on a drawing by J. Walker).

sited, right on the street frontage. The flank doors give access to a cross-passage, under the first-floor chamber. A similar passage arrangement could be seen at Trimmers Pond, Forest Row, Sussex (Mason 1964).

6. Yew Tree Farmhouse, Messing
Yew Tree Farmhouse is a long wall jetty house of the early 16th century. The kitchen, of which only a remnant survives, bears a slight resemblance to the previous example and its attached end projects out of the back of the farmhouse.

7. Brook House, North Street, Great Dunmow
Brook House is a very substantial building with two very long cross-wings. That to the south forms, with the kitchen, a range with no less than seven crown-posts. The supposed attached kitchen has a bay with a chamber on each floor and a 'hall' of the usual two bays. That part of the cross-wing proper to which it is attached has some form of smoke outlet, perhaps associated with the kitchen. The interior of Brook House has been somewhat altered and the original arrangements are now unclear.

8. Chopyns, Broomfield
This little building stands close to the frontage and was probably associated with a 'Wealden' house, later converted to a barn, but subsequently converted back into a dwelling. This example has an unequal bayed hall with a rare survivor of an early timber-framed stack. It is probable that other kitchens incorporated a similar feature.

9. Littlebury Hall, Stamford Rivers
The structure in question is to be found at the first floor in the rear of the service wing of this ambitious timber-framed and brick house of the late 16th century (Andrews *et al.* 1995). Clearly older, this re-used fabric is kitchen-like, but has some puzzling features. The first-floor shuttered window would seem to have been impracticable, unless there had been a narrow gallery in front.

10. Hancocks, Moreton
This extremely complete detached example is sited in front of its parent house. Whilst small, the planning, fenestration and detail are sophisticated and may represent an ultimate form.

11. Abbotts Hall, Eight Ash Green
There are vestigial remains of a two-bay kitchen behind what first appears to be a 16th-century parlour. Closer examination reveals that the house has 'changed ends' and that the 'parlour' was constructed as a new service end.

12. The Swan Public House, Chappell
The Swan has a relatively early service wing and a late 16th-century kitchen, attached to the backs of two equal bays without an end chamber. This side purlin roofed building is heavily soot-encrusted and deserves detailed recording.

13. Flispes, Easthorpe Green
The mid-to-late 16th-century kitchen forms one bay at the high end of a long, conventionally planned and unjettied house.

14. Old Post Office Cottages, Great Yeldham
See Crossan and Christie (1995).

Discussion

It has to be admitted that there is no documentary evidence to support the notion that any of the above examples was a kitchen. However, the circumstantial evidence is, in many cases, strong, and it is difficult to imagine the buildings being used for any other purpose. Most have evidence of soot blackening, but the presence, or otherwise, of this cannot be regarded as incontrovertible proof. As can be seen, such kitchens, whether attached or detached, have a relatively standard format which borrows from the structural conventions of domestic buildings of the time.

This short paper is intended to encourage interest in this relatively under-explored subject and to illustrate the limits of existing knowledge.

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Stebbing church. Vestry into chapel

by D. D. Andrews

Introduction

In September 1993, work started on laying a new floor in the vestry on the north side of the chancel of Stebbing church (Fig. 1). Brick foundations and the appearance of voids in the earth below the existing floor showed the work to have significant archaeological implications. An initial assessment of the situation identified an apparently early stone footing (50) just inside the existing north wall (Fig. 2), at least two floor levels, a rectangular hole with its sides made of mortared pegtile, probably a grave, several more probable graves represented by the voids, and the foundation of a post-medieval brick chimney stack. Finds retrieved by the builders from their excavation included fragments of medieval carved stone and a decorated medieval floor tile. In these circumstances, arrangements were made for the Essex County Council Field Archaeology Group to carry out a rescue excavation.

The discoveries listed above were located in the west half of the vestry where the contractors had reduced the level for the construction of a new lime concrete solid floor (Plate 1). The archaeological investigation therefore concentrated on the east half of the vestry where a trial trench 1m wide was excavated to the depth required by the architect's specification (Fig. 2). In the western half, the rectangular feature was emptied and shown to be a grave, another grave was excavated, and the superficial stratigraphy was examined. A small hole was dug in the north-east corner of the vestry to check for the presence of the early foundation. A watching brief was maintained when the contractors reduced the level in the eastern half of the vestry.

The church of St Mary the Virgin is a handsome example of 14th-century architecture, being remarkably intact and well preserved (Plate 2). It is best known for its stone screen at the junction of the chancel and the nave. The date of *c.*1360 proposed by the RCHM (1916, 280) was not acceptable to Pevsner who thought it to have been built rather earlier in that

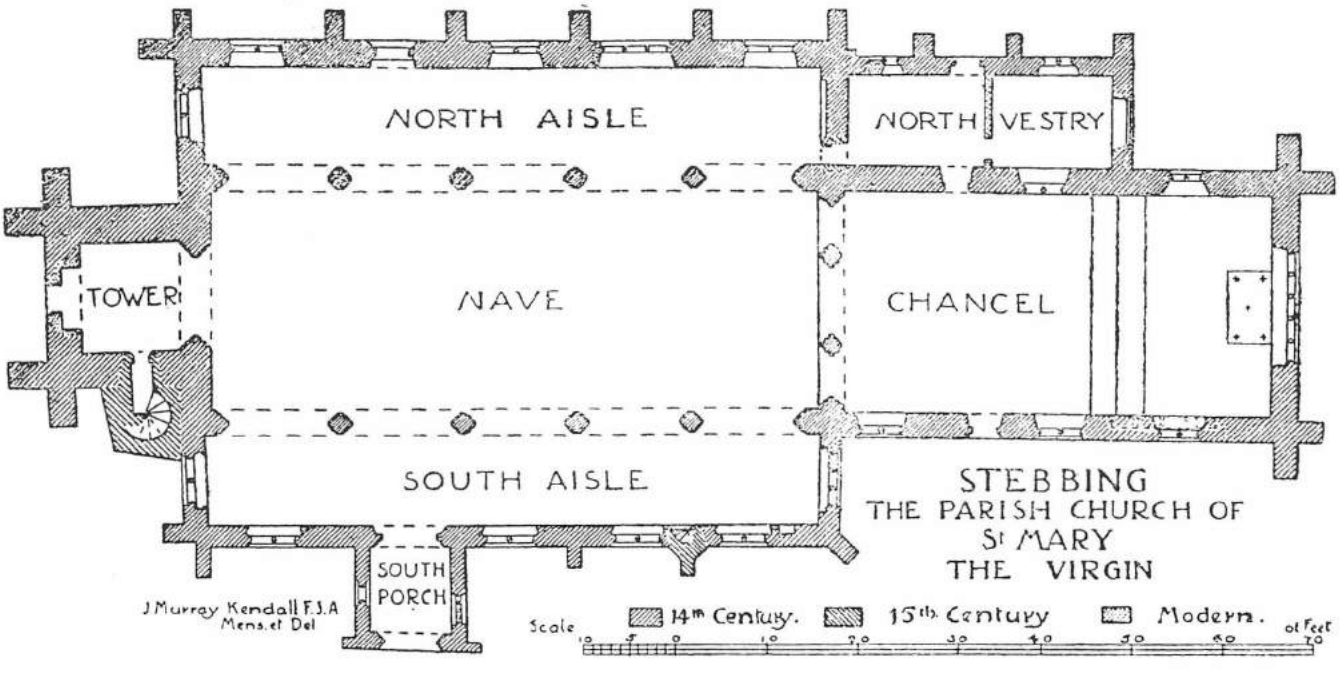


Fig. 1 Plan of Stebbing church *(RCHM Essex 1916)*.

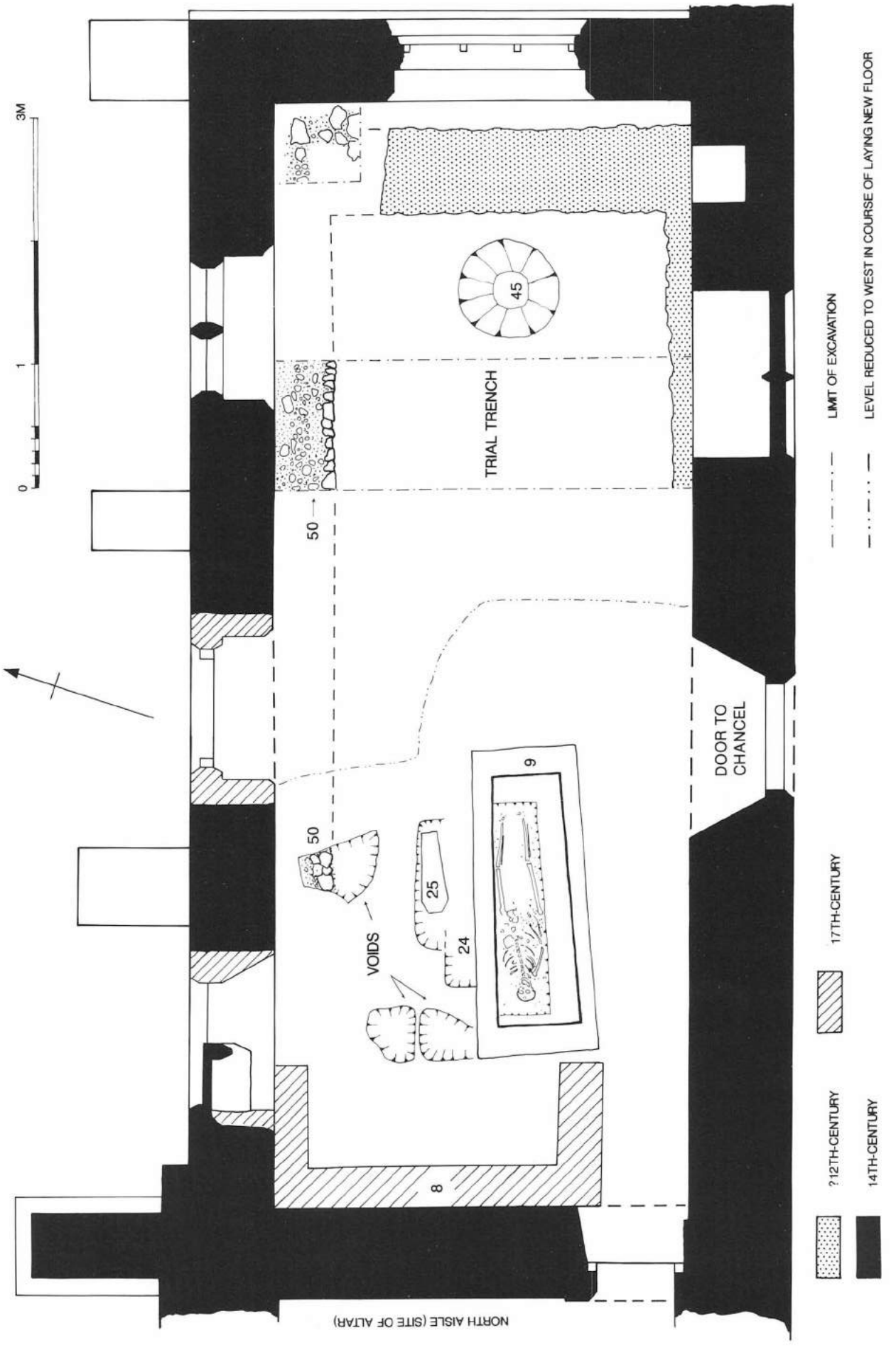


Fig. 2 Plan of the vestry showing the main features found during the excavation (foundation 50 is the same build as that represented with stipple).



Plate 1 Stebbing St. Mary, excavations in the west half of the vestry (looking west) showing the tomb made of pegtiles, the graves to the north, and in the background the foundation of the 17th-century fireplace.

century. The only significant additions or alterations to the 14th-century fabric are the stair turret to the tower, the clerestory, and the nave and chancel roofs.

The most altered part of the church is the vestry which is the subject of this paper. It measures about 5m x 9.6m (Fig. 2). Externally, it has been covered in Roman cement but this has been mostly removed. The three buttresses on the north side of it are all modern additions. There is an original door on its south side communicating with the chancel, but later ones have been inserted in the west and north walls. The west door has been crudely cut through the end wall of the north aisle. It is an enlargement of a door that originally gave access to the stairs to the rood loft. The north door is a 17th-century insertion. Either side of this door there were two-light windows with ogee heads. That to the west of it has been partially blocked and reduced to one light, whilst that to the east is blocked and has undergone unfortunate stonework repairs. The window of the east wall was doubtless similar if larger, but now has a six-light wooden frame. The roof, of a single pitch, is built of timber of relatively slight scantling and is clearly post-medieval in date.

There is no reason to think that the vestry is not contemporary with the church, or else built very soon after its initial construction. That the latter is so is suggested by the existence in the roof void of the original external render on the side of the chancel.[1] However, the vestry seems to have been anticipated from the first as there is a string course at its roof line running the full length of the chancel wall, as if it was intended that it should be as long as the chancel. Whilst it is true the vestry does not obscure any windows in the chancel, the only window in the north chancel wall is anomalous inasmuch as it has Y-tracery which does not match the quality of the traceried windows present in the rest of the church.

The archaeological sequence[2]

Period 1. Earliest layers

A firm dark brown silty clay loam was exposed on the bottom of the trial trench. Its surface was somewhat uneven, but it gave the impression of being a trampled surface, though not a true floor in its own right. It was not excavated (though it was observed to be at least 200mm deep), but trowelling it produced a small medieval greyware sherd (fabric 20, datable broadly to the 13th century) and some small white snail shells. This deposit is interpreted as the disturbed upper part of an old soil. Comparable deposits were noted else-

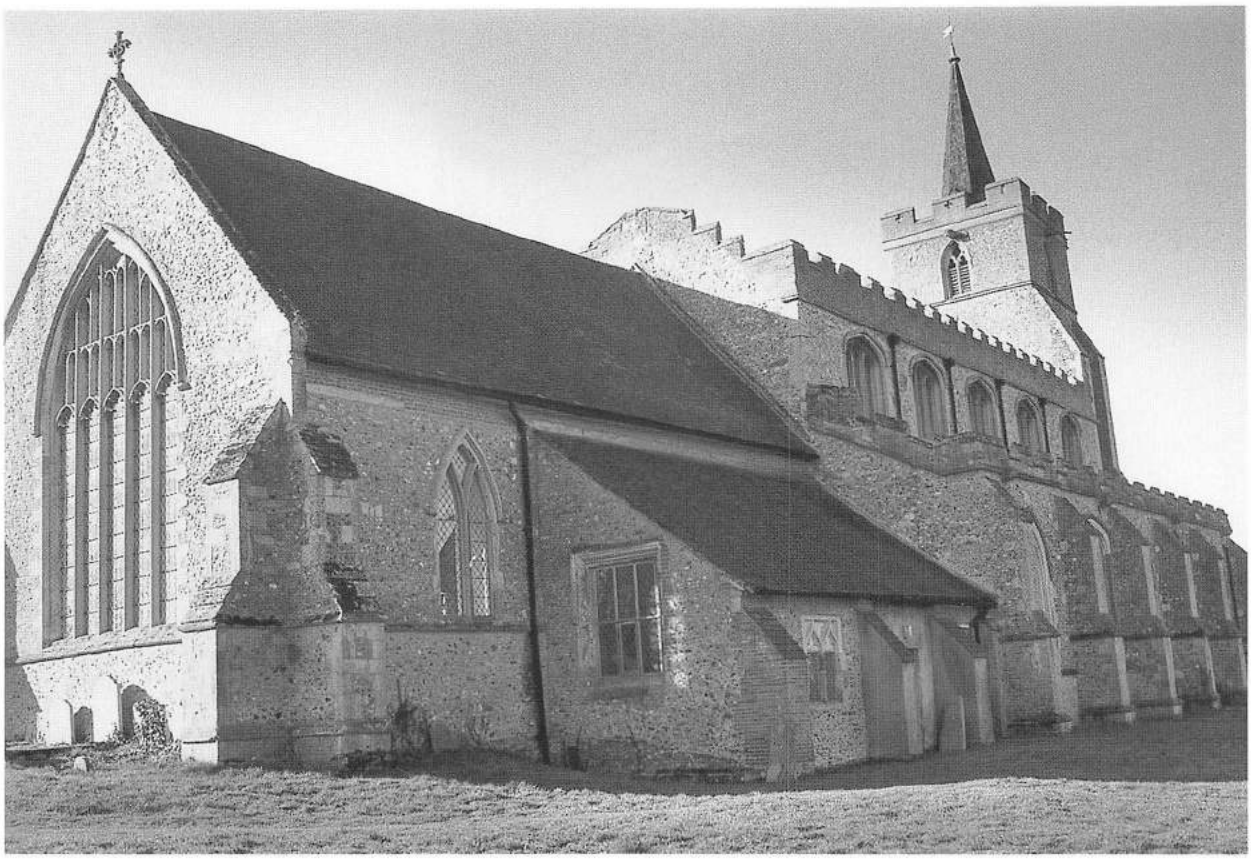


Plate 2 Stebbing St. Mary, the north side of the church showing the vestry adjoining the chancel.

where in the vestry during the watching brief.

Period 2. The early phase of the church

The foundation (50) discovered by the contractors was present in the trial trench (Fig. 2), from which it was concluded that it ran behind the full length of the north wall of the vestry. The small sondage in the north-east corner indicated that it returned southwards and ran behind the east wall of the vestry. This was confirmed in the watching brief (Fig. 2, where the foundation is indicated with stipple). The wall was made of fairly large well-sorted flints bonded with a yellow-brown mortar. It had been cut by the existing north wall of the vestry. To the east, however, where it lay about 200mm behind the vestry wall, it was 660mm wide. At the north-east corner, the foundation had been robbed out, perhaps to salvage ashlar dressings or Roman tile. This early wall was also present as a projecting footing on the south side of the vestry. A grey silty layer containing charcoal butting up against the foundation in the trial trench looked like a surface associated with the use of the wall, but otherwise there was no evidence of floor levels related to it.

Period 3. The existing church building. Phase A1. The chapel

In this period, the walls of the existing vestry were built, along the north side apparently cutting the earlier wall described above. Like the earlier walls, these walls were built of flint. They are about 660mm wide, and bonded with a whiter mortar than the early footing.

Flooring material interpreted as contemporary with the initial phases of the use of the building was found in the west part of the vestry, in the trial trench, and in the watching brief at the east end of the vestry. The deposits comprised yellowish sandy layers overlain by brown sandy clays or loams with traces of lime. The lime present in these earthy layers, and a few fragments of tile found at the interface between them and the overlying layers, indicate that they served as bedding for floor tiles.

The relationship between the graves and the floors had been largely removed by the builders, but grave 24 was observed to cut one of the floor layers, and it is assumed that 9 did so too. 9 was built of pegtile bonded with a whitish mortar, the sides being 100-180mm thick. It measured 2.00 x 0.55m internally, and its bottom was 0.80m or slightly less below original floor level. The bottom of it was lined with a layer of clay. On this was lying the skeleton of a middle-aged man[3] which had slumped somewhat down to the north. (This was exposed and cleaned, but left *in situ*, being covered with soft earth prior to the laying of the new

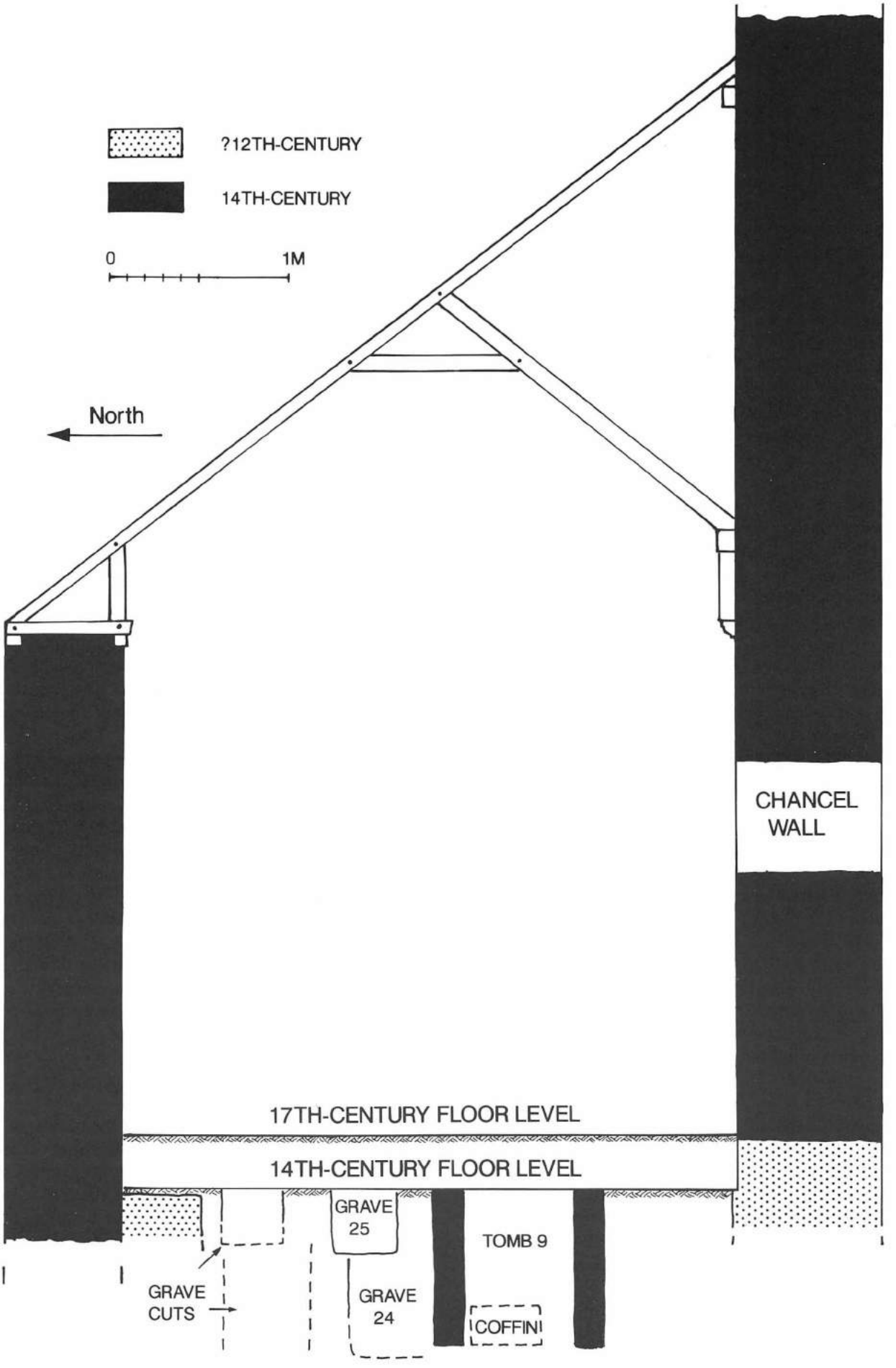


Fig. 3 Section through vestry including the graves and archaeological levels.

floor). No artefacts were found associated with it. It was however clear that the body had been put in a wooden coffin. There were the remains of a wooden board from a coffin flanking the south side of the skeleton, and a few nails were recovered. It is assumed that all the fills in this grave arrived at a later date, with the exception of a grey silty deposit that resembled ash, not excavated but present around the skull and upper half of the skeleton; and a mid-brown loose sandy clay loam with frequent stones (which was much darker and more loamy in character with fewer finds than the overlying deposits).

To the north of grave 9 there were several voids which although clearly representing burials formed what seemed at first to be an incoherent pattern (Fig. 2). On examination, however, they resolved themselves into at least two graves which although not fully investigated, could be identified with reasonable confidence.

Adjacent to 9 was a grave cut (24) which was apparently of the same size and parallel and coterminous with it. This seemed later than 9, but the opposite could conceivably be true. In the space between 24 and the early footing to the north, a void and the extreme softness of the earth indicated the existence of another grave. In other words, there seemed to be a neat row of at least three graves, all adults, with their heads and feet next to each other, the southernmost one being laid in a masonry tomb (Fig. 3).

The masonry tomb (9), and the other graves, suggest that the vestry was originally built as a mortuary or chantry chapel. The tomb is assumed to be much the same date as the vestry, which as has been argued seems contemporary (or almost) with the 14th-century rebuild of the church. Dating evidence, as is only to be expected from a small investigation inside a church, was virtually non-existent. The most valuable indication of date are the pegtiles of which the tomb was built. The standard late medieval and post-medieval pegtiles measuring approximately 10½ x 6 inches (as opposed to the 12th-13th century ones measuring 12-13 x 7-8 inches) were made from about AD 1300, and therefore exclude the possibility of the tomb pre-dating the standing building. The 14th century was a time when pegtiles were the most convenient building material to hand inasmuch as they are regular in shape and brick manufacture did not become at all widespread till the later 15th and 16th centuries. That the tomb was not built of brick is a good indication that it is earlier than *c.* 1450. The initial earthy fill in the tomb covering the coffin contained a residual sherd of 12th to 13th-century pottery, possibly early medieval ware.

Graves built of pegtile have been found elsewhere. One was present amongst the dozen or so graves excavated in the 12th or early 13th-century chapel that stood to the south of the walled garden at Cressing Temple. This differed from the Stebbing example in that the lower part of the grave was made more economically of tiles laid vertically against the sides of the grave cut. This grave occupied an almost central position within the chapel.[4] These pegtile graves must have been marked by either a ledger in the floor or a table tomb. The ash deposit round the Stebbing skeleton may indicate that this was a late example of a charcoal burial, sackcloth and ashes being symbols of penance.[5]

Period 3. Phase A2. Later use of the chapel

The pegtile tomb (9) was found to be filled with layers of rubble and building debris, which included fragments of decorative carved stonework, floor tile and window glass. The tomb had clearly been opened and the void infilled. Pegtile in the fill shows that the upper part of the tomb was razed. If there was a table tomb, it was probably demolished. The broken stonework, floor tiles and window glass indicate a spate of iconoclasm which is assumed to be the work of the mid 16th-century rather than the 17th-century reformers. Unfortunately, this cannot be proven because there was no dating evidence amongst the building debris in the tomb, and the stratigraphical relationship between the tomb fills and the floor layers had also been removed by the builders. It is assumed that the clay make-up layer (6) for the higher phase B floor level ran over the tomb. If so, then this tomb had almost certainly been dismantled before phase B as its uppermost fill was a sandy deposit which looked like a slumped bedding layer for a paved floor, and as such was presumably intended to make good the area over it to the level of the phase A2 floors.

Several other layers and features can be dated on finds evidence to the final stages of the use of the chapel, before it was refurbished as a vestry in the later 17th century (Period 3, phase B). In the trial trench, a flooring layer of brown sandy clay which overlay the early wall contained post-medieval window and vessel glass, suggesting that the floor had been renewed, or else disturbed, at a time when the windows were being reglazed in the 16th or 17th centuries. Also in the trial trench, a layer consisting largely of white lime mortar was found filling a depression in the underlying soil layer. From it was recovered a Nuremburg trade token or jetton of Hans Krauwinckel datable to *c.* 1600. This layer could represent a levelling-up of the floor surface inside the building, possibly in the area of a grave as the deposit had an east-west orientation.

That the chapel was being used for burials as late as the 16th or 17th century is shown by the presence of two infant burials cut into the two graves adjacent to tomb 9. Of these, one (25) was investigated, it being only just below the reduced level in the west half of the vestry. This grave was clearly of a neonate, there being no bones present, the remains comprising a dark deposit incorporating pieces of a woollen shroud. The presence of wood beneath the shroud, as well as nails, showed that the infant had been buried in a coffin. At the foot of the burial there was a fragment of a well made red brick measuring 100 x 50mm, with a smooth sandy base.

The existence of a second infant burial adjacent to the early footing was indicated by a void of similar size, and a similar brick, measuring, 105 x 45mm with square arrises and a smooth but not sandy base, where the feet would have been. These smallish well-made bricks look possibly 16th to 17th century in date. A glazed sherd of post-medieval red earthenware (fabric 40) in the fill of 25 suggests a similar date.

At the east end of the vestry, just 200mm from the foundation of the early wall, there was a bowl-shaped cut feature (45) measuring 840mm in diameter by 300mm deep, which had evidently functioned as a hearth. It had been lined with a layer of sandy clay burnt red and was filled with a thick layer of grey ash which also contained masonry, burnt flints, tile, nails and lead. This hearth was poorly linked to the stratigraphic sequence, but probably belongs to this phase. A stone with a wave moulding recovered from its fill connects to the evidence for iconoclasm found in the tomb. The fragments of lead may have derived from work on the windows, and the hearth was located close to a poorly stratified layer between the early foundation and the east wall of the vestry which contained fragments of medieval and post-medieval window glass, testimony to the replacement of one with the other. However, that the hearth was sealed by a layer containing a black-glazed sherd could be interpreted as indicating that it dated from the 17th century.

Period 3 Phase B. The vestry

A distinctive layer of rather poorly compacted redeposited chalky Boulder Clay (6) was found to extend over most (if not all) of the vestry and was clearly a floor make-up layer about 150mm deep. A fireplace (8 in Fig. 2), of which only the foundations were preserved, was constructed in the north-west corner of the vestry. It measured 2.64 x 1.16m, and was built of bricks measuring 220-230 x 100-110 x 50-60mm laid to English bond.

A complex group of predominantly sandy layers represented the remains of several successive floors only closely examined in the trial trench. Of these the most extensive to directly overly the floor make-up was a thin (15-20mm) greyish brown compact sandy silt (1). A few fragments of pammets at the interface between this and the overlying layer suggest that this layer was the bedding for a pammet floor, as were probably the other layers.

The raising of the floor and construction of the fireplace indicates a major new phase in the life of the building, which clearly ceased to be a chapel and assumed its modern use of a vestry. The dating evidence all points to this having occurred in the 17th century. This seems the most probable date for the relatively small well made bricks of which the fireplace was constructed. The floor layers contained fragments of claypipe, post-medieval red earthenware (fabric 40), and black-glazed pottery. A late 17th-century date is suggested by the presence of a rim of Staffordshire-type slipware and a groat of Charles II datable to about 1662 in the floor bedding layer (1), though it is possible that this was not the earliest floor in the vestry.

Structural changes made to the building were extensive. Fragments of window glass indicate renewal of windows. Removal of defective plaster during the 1993 works showed that the north door is an insertion: it has a wooden lintel and its surround is made of Tudor-type bricks comparable to those of the fireplace, as is the partial blocking of the window west of that door. It was probably at this time (if not before) that the west door into the vestry was cut through from the former access to the rood stair. The carpentry of the vestry roof also looks 17th century in date. The scantling of the timber is relatively slight, but otherwise it is well made and the joints are fully pegged.

Period 3. Phase C. The vestry subdivided

When works started in the vestry, it had a floor of brick paviors bedded on yellow sand. The paviors measured 215 x 105 x 35-40mm and were a dark reddish brown colour, the fabric being streaked with yellow clay. On this floor was built a partition wall east of the north door, with a chimney attached to it. The wall was built largely of re-used Tudor bricks.

The paviors were of a type which can be dated broadly to the 18th-19th century. Their relatively small size may be an indication that they were 18th century. Certainly the wall and chimney existed by 1856 as they are shown on Buckler's plan of the church. The reused Tudor bricks must have come from the demolition of the earlier stack. The position of the partition wall coincides with a change in the level of the ceiling in the vestry, and it seems clear that the roof was partially rebuilt at the time of the construction of the wall or not long after.

Finds reports

Carved stone

A number of fragments of dressed stone were found by the builders in the west half of the vestry, and also subsequently in excavation, mostly in the fill of the tomb. The pieces were all in clunch, a fine-grained limestone or chalk-like stone which can be scratched by the fingernail, and which is light-coloured with a somewhat greyish hue. Its softness lends itself to intricate carving. Some of the better preserved pieces have clear traces of being worked with a fine-toothed claw. Three types of work are present:

1) moulded stone, of which there was a single intact piece with a wave moulding found in the upper fill of the bowl-shaped hearth.

2) moulded stone with foliate decoration in the form of a stylized leaf pattern, oak or acanthus (4 fragments). One of these is from an arch or a curving portion of tracery (Fig. 4, no. 1, context 31). The other (Fig. 4, no. 2, context 21) has the leaf pattern worked on one side of a scroll moulding, which being vertical is probably from a jamb or reveal.

3) naturalistic carving, represented by a small head with a gaping mouth and protuberant tongue (Fig. 4, no. 3, unstratified).

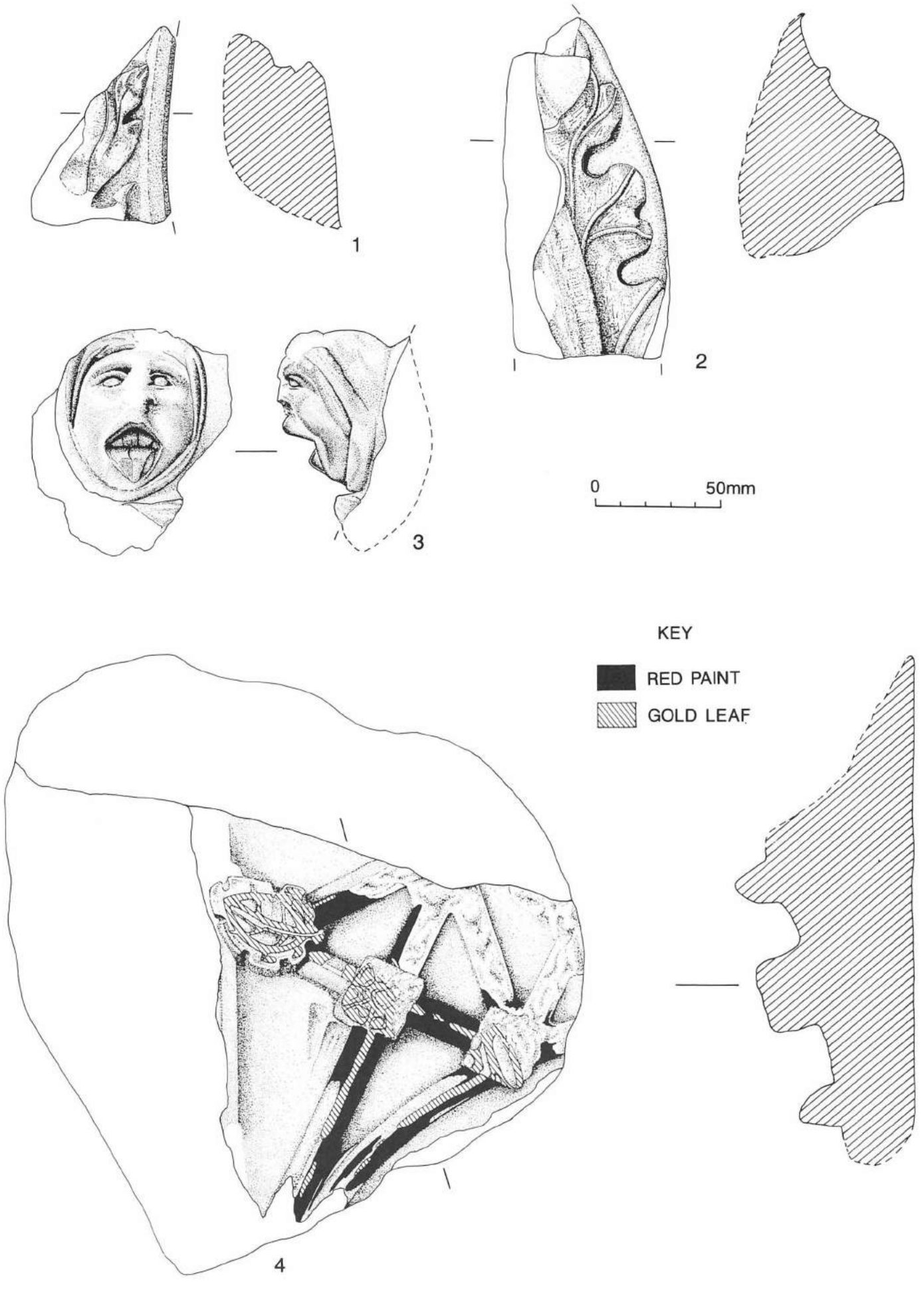


Fig. 4 Carved stone.

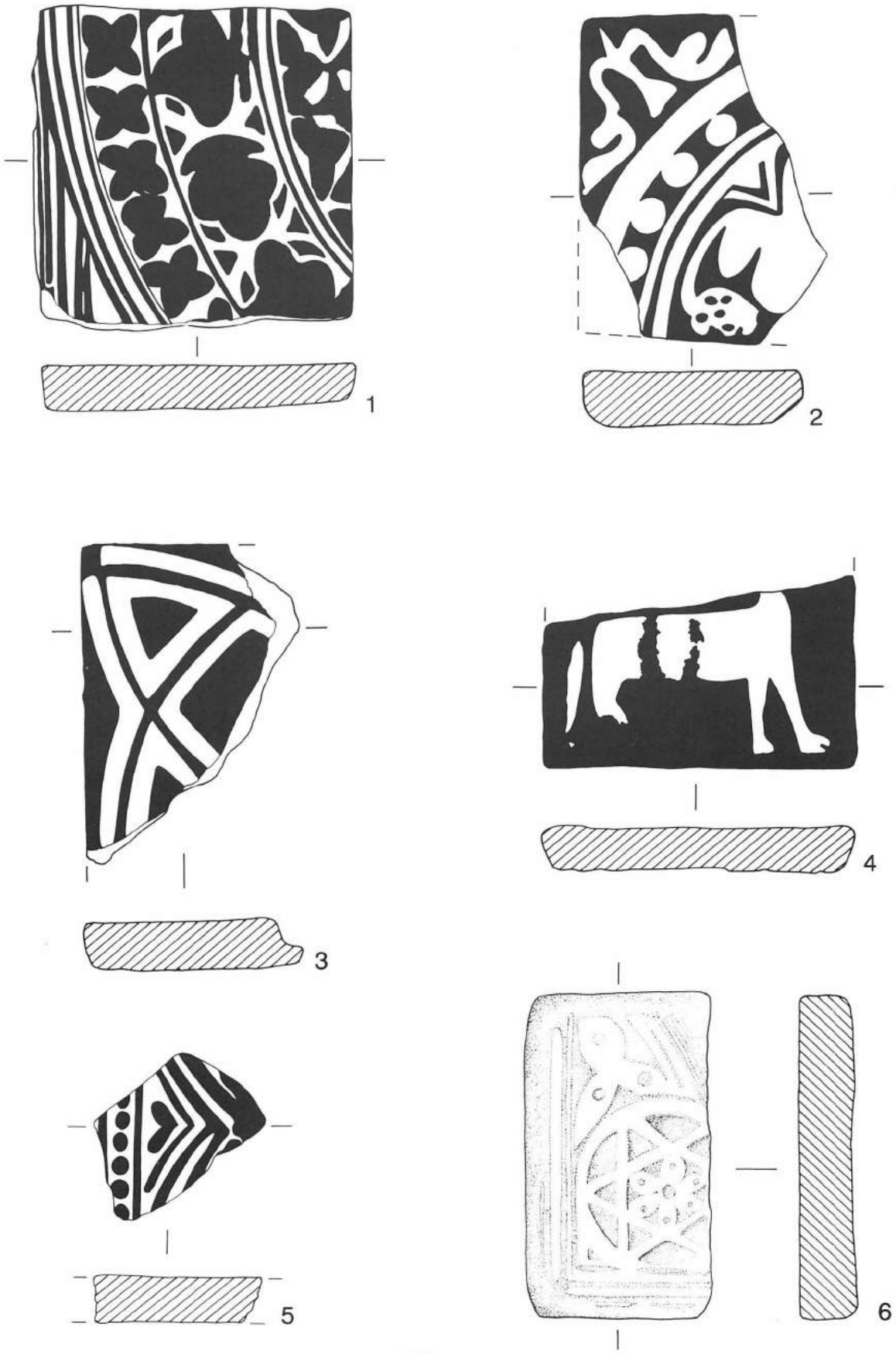


Fig. 5 Floor tiles: stamp-on-slip nos 1-5; green glazed with stamped decoration no. 6.

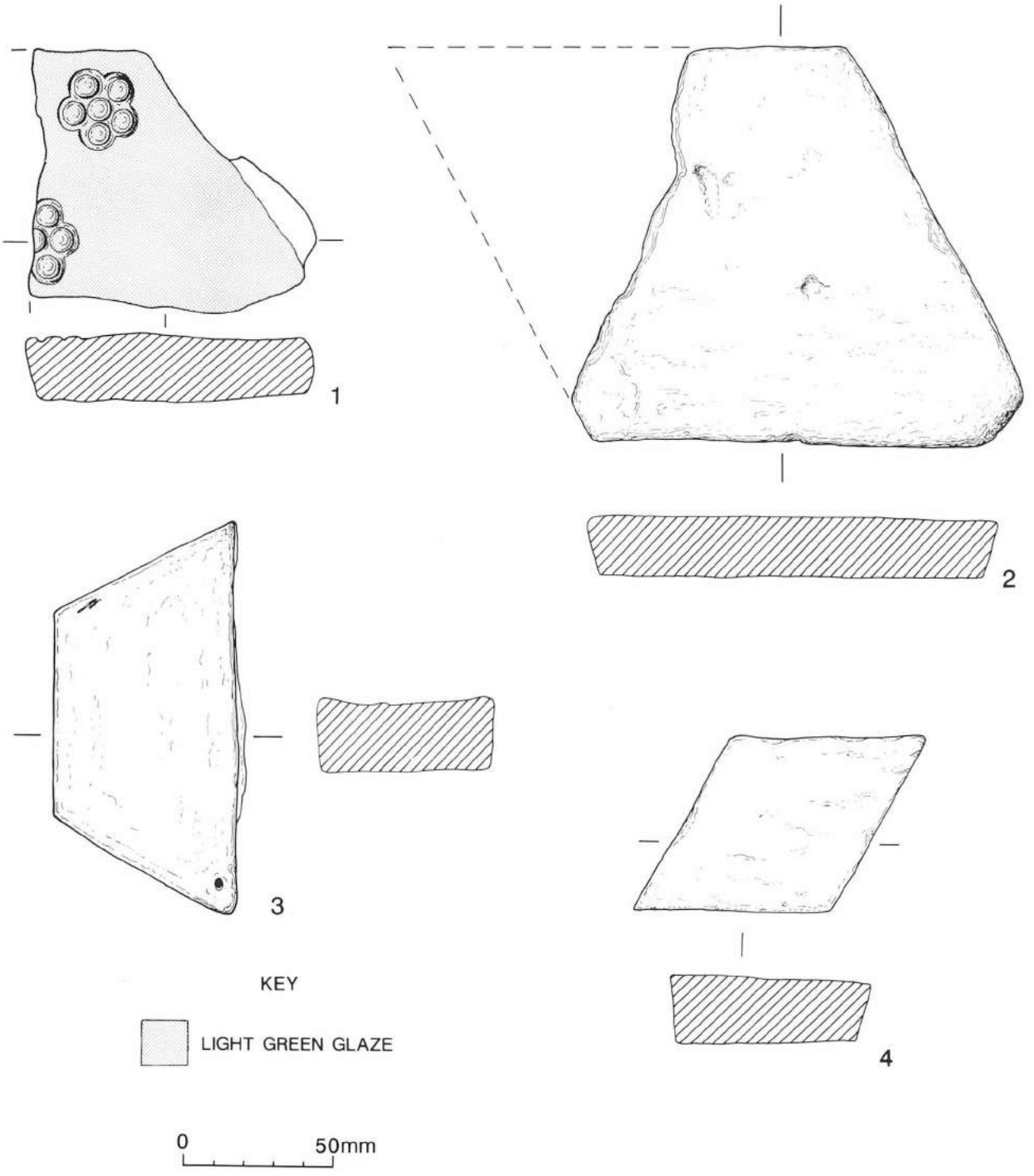


Fig. 6 Floor tiles: stabbed with stamped decoration no. 1; stabbed and green glazed no. 2; monochrome tiles with brown glaze nos. 3 and 4.

4) decoration derived from architectural motifs (Fig. 4, no. 4, unstratified), comprising part of a large stone with ribs with bosses at their intersections (one large and one smaller fragment). The recessed areas are painted in limewash. The ribs and bosses were painted in red and then heightened with gold. The foliate carving, and possibly the head, could have come from the stone screen which was despoiled at the Reformation and is now much restored. The ribbed decoration is very similar to that of the mutilated reredos at the east end of the north aisle: it must have come from that or from a similar reredos.

Floor tiles

Introduction

129 tiles or fragments thereof were found in the excavations, most of them from the fill of tomb 9. With the exception of a post-medieval quarry tile or pammet, the tiles may be assigned to the period *c.* 1350-1550, these limits being provided by the 14th-century reconstruction of the church and the Reformation, which constitutes a *terminus ante quem* useful in assessing the monochrome tiles. The dating proposed in the descriptions of the tiles given below should be regarded as only approximate.

The study of the tiles is made difficult by their very worn condition, and by the presence in many cases of an abundant covering of lime mortar. Unless otherwise stated, the tiles all have undercut and knife trimmed edges and flat sandy bases. The later thicker tiles tend to have less pronouncedly undercut edges. No petrological analysis has been carried out of the tiles, but at a macroscopic level, the number of fabrics seems to be few. The medieval monochrome and two-colour or encaustic tiles, and some of the 15th to 16th-century ones, are in relatively distinctive fabrics, but most are in a fine-textured fabric with few conspicuous inclusions.

Fabrics

The following fabrics have been distinguished:

1. Gritty, sandy in appearance with sporadic pieces of flint up to 5mm, hackly fracture, typically reduced in section. This fabric is limited to the medieval encaustic and monochrome tiles. It is also identical to the fabric of the early pegtiles from the site, and it will be argued that both the floor and the pegtiles were manufactured at Stebbing. 14th century.

2. Sandy, but generally fine textured in appearance, the sand grains being small and well sorted, with few macroscopic inclusions, pieces of flint occurring only rarely. This is the largest fabric group, and should possibly be sub-divided. It consists mainly of the stabbed monochrome tiles, but also includes a relatively small number of other tiles. 15th-16th centuries. A parallel can be drawn between this fabric, and the finer variants within it, and the increasingly fine late and post-medieval Essex pottery fabrics, notably the so-called fabric 40 or fine red earthenware (Cunningham and Drury 1985, 1).

3. Very fine textured, high fired, oxidised, pink to orangey red with rare chalk inclusions. Large thin dense well-made tiles, of which only four examples are present. 15th-16th centuries.

4. A distinctive coarse red fabric, with abundant poorly sorted inclusions. Represented by four fragments all from what seems to be an early type of pammet. 15th-16th century. There are similarities between this fabric and that of the paving bricks found in the excavation (see below).

Typology

1. *Medieval two-colour slip-decorated or encaustic tiles* (Fig. 5, nos. 1-5, contexts 18, 21, 21, 31 and 23). These were probably made by the stamp-on-slip method identified by Drury and Pratt (1975) in which tiles are slipped, stamped and then the surface is scraped over removing the slip except in the areas impressed by the stamp. The intact examples have a side length of 105-107mm, and are unusually thin, 13-15mm, though some are as much as 17mm. Sometimes the tiles are distorted, with a distinct camber. Fabric 1. 14th century.

2. *Medieval monochrome tiles* in fabric 1. Dimensionally similar to the encaustic tiles, and apparently designed for use with them. The tiles may be brown-glazed or yellow, with a transparent glaze over a cream slip. 14th century. They were often scored for snapping into smaller shapes. Two have been scored starwise so as to be able to produce small triangular pieces presumably for mosaic patterns.

3. *Medieval line-impressed tiles* with fine stamped decoration. They are of similar dimensions and appearance to the encaustic tiles, and also in fabric 1. Only two very worn examples are present, decorated with gently curving lines. One tile bears traces of slip. 14th century.

4. *Green-glazed tiles with stamped or counter-relief decoration* in fabric 2. Only one relatively well preserved example was found, a scored and snapped half tile, of similar dimensions (110 x 60 x 16mm) to the encaustic ones (Fig. 5, no. 6, context 29). The glaze is pale green which in the stamped areas may overlie slip. The fabric is reduced except at the surfaces, with numerous black iron ore inclusions. 14th century. This tile had been turned and relaid.

   Four other less well preserved fragments with apparently similar decoration were found. Also found was a green-glazed square tile stamped with five-petalled rosettes. This type of stamped decoration (though not made with an identical stamp) also occurred on a stabbed lozenge tile (Fig. 6, no. 1).

5. *Stabbed tiles* in fabric 2. Much of this material is worn, so that typically they present a grey surface where the reduced core has been exposed and a red one where it has not. Oxidised tiles can be orangey brown in colour. Some worn examples have laminated surfaces. Their condition is an obstacle to an accurate assessment of them. The tiles are usually readily identifiable because their bases have been stabbed numerous times, perhaps 10-15 for an intact tile, with a pin or thin nail just over 1mm in diameter. Occasionally the stab holes pass right through the tile. If the tile is worn, this is often now the case. Sometimes, however, the stab holes are few, and the number of holes doubtless depended on the whim of the tiler. If so, then the presence of stab holes need not necessarily be a criterion for including tiles within this type, and some tiles closely resembling the stabbed ones but apparently lacking stab holes should perhaps have been included in this group.

   The reason for this treatment of the tiles is uncertain; one suggestion is that it may have been intended to prevent the tiles from cracking in the kiln. Similar practices are not unknown elsewhere, and there is for instance a group of late 13th to 14th-century stabbed tiles found in Oxfordshire, Warwickshire, Northamptonshire, Leicestershire, Buckinghamshire and Bedfordshire (Eames 1980, 203-06). Generally the stab holes seem to be rather larger than those in the Stebbing tiles. It is assumed that this technique, which seems not to have been noted before in Essex tiles, characterised a particular production centre, in this case the tile factories at Stebbing and in the area which continued working into the 15th century and maybe later (see below). A 15th-century date may be proposed for these tiles, inasmuch as they seem to represent a flooring scheme later than the encaustic tiles.

   Against this conclusion it could be argued that there is variation in the shape, surface treatment, and dimensions of this type of tile. The tiles can be square or lozenge-shaped. The thickness ranges between 16-20mm (though wear often accounts for much of this variation). Some of this diversity may be attributable to changes in the product over a possibly long period of time, and some to the design of the floor of which the tiles were destined to form part.

   The following categories of stabbed tile can be recognized:

   5a) small square tiles, with a side length of 105mm and 15mm thick. Some of these resemble the encaustic and monochrome tiles in fabric 1 and they may be transitional with them.

   5b) large square tiles, of about 150mm side length and generally 18-20mm, though occasionally 24-25mm, thick. Some of these were green-glazed, or green-glazed over slip.

   5c) lozenge-shaped tiles, with a side length of 150mm, and 18-

20mm thick (e.g. Fig. 6, no. 2, context 23). These were numerous, 42% of the total, and were green glazed or cream slipped.

Some of the square tiles were scored and snapped for use as border pieces. There were also a few triangular tiles for use with the square ones which were made in a mould and not snapped. Decorative patterns are absent from these tiles apart from a lozenge-shaped green-glazed one with stamped five-petalled rosettes (Fig. 6, no. 1, context 32).

6. *Monochrome tiles in fabric 2.* The identification of these groups is based on only a very few tiles, and should therefore be treated with caution.

   a) 120mm square tiles, 22mm thick, pronouncedly undercut sides, either with a yellow-greenish glaze over slip or brown glazed. The fabric somewhat resembles fabric 3. Only two examples.

   b) lozenge-shaped tiles. These resemble the stabbed tiles but lack the holes. They are slightly thicker than the stabbed tiles (21-24mm). One is cream-slipped, and one greenish glazed over a slip. Only two examples.

   c) hexagonal tiles, represented by a single well preserved brown-glazed example, the glaze being unusually clear and lustrous (Fig. 6, no. 3, context 32). This in fact a semi-hexagonal tile, the long side being scored and snapped. The sides measure 66mm, the centre line being 130mm. The tile is 21mm thick. A small lozenge shaped tile (Fig. 6, no. 4, context 23) with a worn surface and a side length matching the glazed tile could have been laid at the interstices of such tiles. Both tiles are intact, and it is assumed that they are in fabric 2. 15th-16th century.

   d) tiles 22mm thick, with a lustrous dark brown to black glaze. Only a single small fragment was found. 16th century.

   e) thick (32-34mm) tiles with a dark brown-green to black glaze, and without undercut sides. Three fragments found. These seem to be pammets with a side length of probably about 230mm (i.e. 9 inches). 16th century.

7. *Monochrome tiles in fabric 3.* Hard, dense, well made tiles about 120mm or 150mm square and 16mm or 20mm thick. Only four fragments found. They seem to have been slipped and glazed. 16th century

8. *Large square tiles, probably pammets nine inches square,* in a coarse red fabric (fabric 4), of which only four very worn examples were found. Side length at least 135mm, 25mm thick. Edges not undercut. One has dark green to blackish glaze on its edge. 16th century.

Table 1. Quantitative assessment of the different types of tiles found in the vestry

TYPE	QUANTITY
Encaustic or monochrome (fabric 1)	50
Line-impressed (fabric 1)	2
Stabbed (fabric 2)	46
Fabric 2 with stamped decoration	5
Other tiles in fabric 2	13
Fabric 3	4
Fabric 4	4
Pammets	3
Post-medieval pammets	1
Uncertain	1
TOTAL	129

Discussion

A date range of *c.*1350-1540 has been proposed for this assemblage. The monochrome and encaustic tiles in fabric 1 must have been contemporary with the reconstruction of the church and chapel. The stabbed tiles and other types must belong to later floor repairs and re-orderings.

It is probable that much of this material, and certainly the medieval monochrome and encaustic tiles, were made in Stebbing. A tile kiln making pegtile (i.e. roof tile) and encaustic floor tile was excavated in 1950 about half a mile south of the church (Harley 1950). Two other kilns were identified at the same site but were not investigated. The location of the tiles found is today unknown, and the tiles themselves were not published. The pattern on a small fragment from the vestry (Fig. 5, no. 5) resembles that on tiles found at Leez and Little Dunmow Priories and attributed by Drury to Stebbing (Drury and Pratt 1975, fig. 63, no. 120; Eames 1980, 184, design no. 2728). It is a reasonable hypothesis that the Stebbing kilns were making amongst other things floor tiles for the parish church. That the industry was of some significance and duration is indicated by the fact that tiles are known to have been obtained from Stebbing for Great Bardfield manor in 1343-44 (Ward 1992, 55), and for Pleshey castle in 1463-66.[6]

The encaustic tiles in fabric 1 are so thin it is easy to believe that they were made by manufacturers of pegtile who had turned their hand to a new product. The fact that pegtiles from the tomb in the vestry were identical in fabric to the floor tile fabric 1 has already been noted, and indeed it was difficult in processing the finds to distinguish the worn fabric 1 tiles which had lost their decoration from the pegtiles.

It is unfortunate that so few intact patterned tiles were found in the vestry. Those that were do not have exact parallels among the large number of tiles excavated at the Danbury tile kiln, the best known group of Essex floor tiles (Drury and Pratt 1975), nor have matching tiles been recognized elsewhere. Drury recognized a family relationship between Danbury, Stebbing and what he called the Central Essex Group of tiles found at Dunmow, Leez and Pleshey. Where the latter were made is unknown, but a kiln is suspected at Pleshey. The fabric 1 tiles resembled Central Essex tiles excavated at Pleshey castle inasmuch as they both have a rather coarse fabric and a sometimes warped appearance, though the Stebbing tiles are smaller and thinner. Drury believed the Central Essex Group to be the earliest, probably of *c.* 1260-80 and to be related to the Chertsey and Westminster group of tiles. The Danbury tiles are thought to be somewhat later of *c.* 1275-85 to *c.* 1325-35, and the Stebbing ones to be slightly later still, on the grounds of their naturalistic foliage patterns. The proposed dating for the tiles from the vestry, admittedly circumstantial, fits in with this dating scheme.

The encaustic tiles formed part of composite patterns. At least seven designs are present, all represented by unique fragments except for Fig. 5, no. 2, of which there are six fragments, and Fig. 5, nos. 1 and 3, of which there are two. As to where they were used in the church, it is possible that pattern no. 1 was laid in the vestry, as the two fragments were found in a floor level. One fragment of pattern no. 2 was also associated with a floor level, but in this case a less reliable context, though the relatively high number present of this pattern would also be an argument that it was used in the vestry. The monochrome tiles in fabric 1 were probably used in association with the encaustic tiles.

The stabbed tiles, which constitute almost half the number of tiles found, seem to be a new type of floor tile for Essex. There seems to be no reason to believe they were not made locally, especially as there is documentary evidence for tile production at Stebbing continuing into the 15th century. The stabbed tiles include square tiles on a six inch (150mm) module, and thus rather larger than those in fabric 1, and lozenge or diamond-shaped tiles also with a six inch side length. The lozenge-shaped tiles can be green glazed and cream slipped, and possibly the two colours were used to form an alternating pattern. Some of the tiles were very heavily worn, their thickness reduced by as much as 10mm. Again it is uncertain where they were used in the church. Very little of the material was found associated with chapel floor levels investigated in the vestry: although the tiles could have

belonged to a paving scheme used in the chapel, it seems more likely that they came from elsewhere in the church.

The other tiles in fabric 2 (i.e. those without stab holes) include square, lozenge and hexagonal examples. They reveal the range of different types of tile that were being produced at the end of the Middle Ages and how variety was introduced into floor finishes by the use of polygonal tiles. A striking example of a pavement in plain polygonal tiles is that excavated by Drury (1983, plate 14A) in the north wing built in the 1580s at Hill Hall, Theydon Mount. Monochrome lozenge-shaped tiles, both large like Fig. 6, no. 2 and small like Fig. 6, no. 4, some with stamped decoration like that found at Stebbing, are present amongst material excavated at Chelmsford Dominican Friary (Drury forthcoming). They bear a resemblance to decorated tiles attributed to the Mill Green (Ingatestone) production centre. The Stebbing tiles in fabric 3 are also comparable to Mill Green material, the type B plain tiles from Pleshey castle (Drury 1977, 105), though the Mill Green tiles are smaller. These tiles were very probably obtained from beyond the immediate environs of Stebbing. This must also be true of the larger tiles in the distinctive fabric 4.

In general terms, floor tiles seem to have become bigger in the 15th and 16th centuries, leading to the development of the 9, 12 or 15 inch quarry tile or pammet. Quite when true pammets were first made is uncertain, but there is growing evidence for them from the first half of the 16th century, something which the discovery of a few fragments in the fill of tomb 9 at Stebbing tend to support.

Roman tile

Three fragments of Roman *tegula* were recovered from period 3 phase A contexts. In view of the proximity of the Roman villa or villas located just to the east of Stebbing village, this is not surprising, but Roman material has not previously been noted in this church.

Pegtile

About 148 fragments of pegtile were collected from the excavations. Most (110) were from the fill of tomb 9, and had clearly come the previously demolished sides of the tomb itself, for which a 14th-century date has been argued. They are rather roughly made, and are in a sandy fabric containing small pieces of flint and rare pebbles, generally reduced in section. They have somewhat rough sandy bases, and the upper surfaces too tend to be somewhat sandy, without the usual smooth surface left by the strike, apparently because the fabric is so sandy. Usually they are fairly flat, though some can be distorted or cambered. As is to be expected of early peg tile, they are relatively large, measuring about 5/8 inch (16mm) in thickness and 6¾ - 7 inches (172-178mm) in width. Some have slight striations and indentations round their edges where they have been pressed down in the mould, a feature comparable to sunken margins in bricks. The peg holes are about ½inch (12mm) in diameter, tapering, and have been neatly made, with any bur on the underside having been trimmed off flush with the surface of the tile. At least two tiles had only one peghole as opposed to the usual two.

There seems no reason for doubting that these pegtiles were made at the kilns found in 1949 (Harley 1951). That they are in an identical fabric to the two-colour floor tiles tends to confirm this conclusion, inasmuch as both types of tile were found at the kiln.

Smaller later pegtiles were found both in the tomb fill and in 17th-century contexts. These are ½inch (12mm) or slightly less in thickness, in a less sandy fabric (though also containing some pieces of white flint and small pebbles). They are less flat, inclining to be somewhat distorted, and the pegholes are less carefully finished. A reconstructable tile from the tomb fill, but recognisably not from the tomb construction because of its dimensions and because it was not covered in mortar, measured 10 x 6 1/8 x ½inches (255 x 155 x 12mm). It is very overburnt, with a widthwise camber.

Bricks and paviors

About 40 pieces of brick were collected during the excavations, most too small to be diagnostic. However, two groups were recognisable amongst them. The first were three pieces from the tomb fill all 65mm thick, examples of the larger Tudor bricks current in the 16th century. The second comprised a group of bricks 110mm wide and 35mm thick, in a rather soft dark orangey-brown fabric with common flint and black iron ore inclusions up to 10mm. Unusually not just the base but the sides too are sandy. The upper surface of these bricks is worn, sometimes dramatically so, indicating that they were used as flooring bricks or paviors. Most of these fragments were in period 3 phase B contexts: their very fragmentary condition raises the possibility that they may relate to paving of the previous phase carried out in the second half of the 16th century after the drastic alterations to the church prompted by the Reformation. If correct, this would be an early instance of the use of specially made flooring bricks rather than ordinary walling bricks which were quite commonly used for flooring in the 16th and 17th centuries.

Glass

Approximately 103 fragments of window glass were found in the vestry, a not inconsiderable quantity considering the limited scale of the excavation. Much of the glass has deteriorated badly and is therefore difficult to assess, but the following principal types can be recognized:

1) devitrified glass, now opaque and very dark green to blackish, tending to be fairly thick (1.5-5mm). Some of this is painted, the paint now being red or whitish in colour. Its condition, thickness, the painting, and its stratigraphic context indicate that this glass is medieval, mainly 14th century.

2) green or greenish glass, about 2mm thick, most of it painted. This glass occurs in deposits pre-dating the conversion of the building/chapel into a vestry, and must therefore be 15th-16th century.

3) yellow-green glass in fairly good condition, 1-2mm thick, not painted. This is post-medieval glass. A few fragments occur in the floor bedding layer (1) containing the coin of Charles II. However, a small amount was also present in the fill of tomb 9, suggesting this type was current from the 16th century and indeed was used to replace the stained glass removed by the reformers.

The glass in the tomb fill forms an interesting group. Of 45 pieces, 34 are type 1, 4 are type 2, and 7 type 3. Glass found in the narrow space between the early wall and the east wall of the vestry seems to testify to the reglazing of the east window probably in the 16th century, the painted glass (type 1) being replaced by the plain yellow-green variety. Nine fragments of each type were found.

Four of the better preserved painted fragments are illustrated (Fig. 7). Nos 1 (context 39), 2 and 4 (both context 13) are all border fragments with grozed edges. The decoration, which in nos. 1 and 2 is based on quatrefoils, has been scraped out from a previously applied band of paint. No. 3 (context 39) looks like a fragment of geometric grisaille decoration.

Conclusions

There were two unexpected discoveries in the vestry, the early foundations inside the line of its north and east walls, and the tile-lined grave or tomb with the burials adjacent to it. The foundations extended under the north wall of the chancel and the east wall of the aisle where masonry bonded with the distinctive yellow to orange mortar was noted beneath the existing walls which are made with a paler mortar. This shows that before the 14th-century rebuild, Stebbing church was

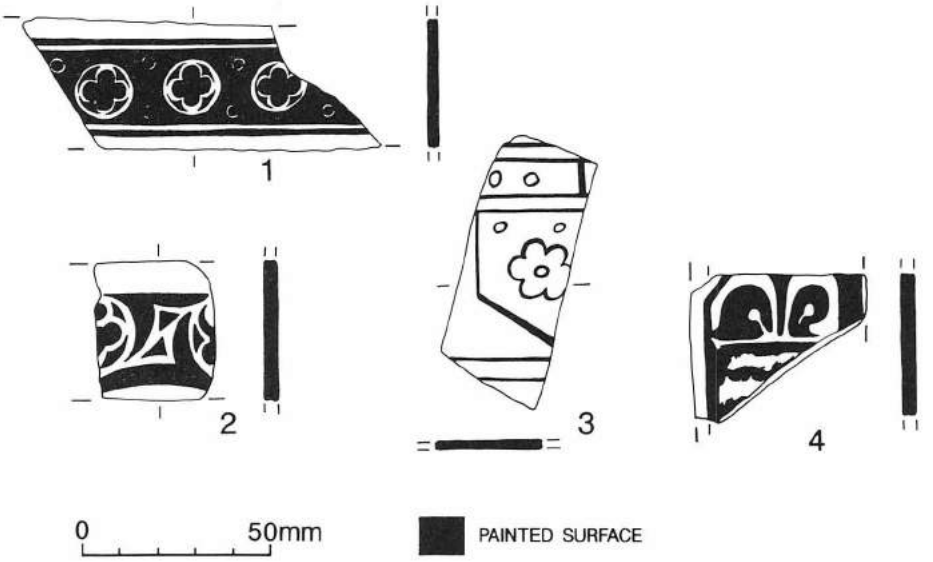


Fig. 7 Painted window glass (nos. 1 and 4 painted in white, and nos. 2 and 4 in red).

already a large building with a north aisle and an annex on the north side of the chancel.

The tomb, which is thought to be 14th-century in date, begs the question of the nature of this annex. In recent times, it has been a vestry, but vestries do not normally contain graves. The construction technique indicates that it belonged to a relatively high status individual. It must have been covered by a ledger stone, or perhaps a tomb chest. Accompanying this tomb were at least two other burials, and there were almost certainly several more. From this it may be inferred that the vestry was in origin a chapel, and there is evidence that leaves this in no doubt. At the east end of the south wall, there is a piscina, a sure sign that there was an altar there. A medieval altar would have been a masonry structure and its base might have been expected to be recognized in the excavations. No such base was discovered, but it may be significant that the early wall along the east side of the vestry survived to a greater height than to the north, and it may therefore have been reused as a foundation for an altar.

A curious feature in the south wall probably also relates to the use of the vestry as a chapel. What appears as a cupboard in the vestry is in fact a two-light lancet aperture with a plain mullion lacking a capital or mouldings. There are no features which point to a precise date, but it seems clear that it was an unglazed window or narrow doorway linking the chapel and chancel.

It is possible to say something of the appearance of the chapel. Originally the only access to it was via the north door in the chancel. The sandy flooring deposits associated with its use served as a bedding for floor tiles. Some at least of the encaustic floor tiles found in later contexts were probably from this floor. The windows had stained glass in them of which numerous fragments were found.

In the absence, for instance, of any heraldry on the tiles or glass, we have no clues from the excavation that serve to identify the builders of the chapel or the occupants of the tomb. The only other route left to unravel these problems is to examine the documentary sources and village history for circumstantial evidence. The principal landowners at Stebbing were the De Ferrers, one of the great noble families of the Middle Ages who held Stebbing Hall from the time of the Norman Conquest till the 15th century. In the 13th century, Stebbing passed into the possession of a branch of the family known as the Ferrers of Groby in Leicestershire (Gibbs and Doubleday 1926, 340-63), much of the Ferrers lands having been forfeited to Henry III as a result of Robert de Ferrers' opposition to the king in the civil wars of that reign.

Although well endowed with lands and very wealthy, the Ferrers of Groby were not in the same league as their predecessors who had been earls of Derby, and it can be inferred that Stebbing was more important to them as a result. It is probable that much of the 14th-century reconstruction should be attributed to them, and their presence no doubt explains why Stebbing has such a grand village church. We have tangible proof of their interest in the village with the founding of a market there in 1338 by Henry de Ferrers, a rather late attempt at setting up a market and doubtless unsuccessful economically. It is interesting, and perhaps significant, that this Henry de Ferrers was married to Isabel, daughter of Elizabeth de Burgh, Lady of Clare, who lived at Great Bardfield. Elizabeth

de Burgh was immensely wealthy, having inherited a one-third share of the estates of the last Clare earl of Gloucester, as well as property by right of her three marriages. She is the obvious candidate for the rebuilding of Great Bardfield church, though this notion has recently been rejected (Ward 1992, 57). However, with Stebbing, Great Bardfield church shares the almost unique feature of a stone screen, and it is tempting to imagine Henry de Ferrers and Elizabeth de Burgh vying in the improvement of their local churches.

Such theories all depend on the dating of the architectural features of the churches, something that is difficult to determine with precision. Thus it is argued that Elizabeth, whose death occurred in 1360, died too soon to have rebuilt Great Bardfield. Stebbing church is assigned to the 1360s by the RCHM, and to rather earlier in the 14th century by Pevsner (1954, 368). It is clear that a connection with Henry de Ferrers is only possible if the earlier date is accepted, as he died in 1343 aged approximately 40.

Whether or not this Henry de Ferrers was responsible for the rebuilding of the church, there is an obstacle to him being the occupant of the tomb in that he was buried at Ulvescroft in Leicestershire. This priory enjoyed the patronage of the De Ferrers, and their wills reveal it to have been their preferred place of burial. Henry's son William, who died in 1370/71 aged 37, is a better candidate than his father for the occupant of the tomb, since he actually died at Stebbing, though his will expressed the wish for burial at Ulvescroft.

Apart from the De Ferrers, there seem not to have been any other preponderant families or individuals who had sufficient resources to build the chapel. There were two sub-manors in Stebbing. Porters was held at Domesday by Ranulph Peverel, but was subsequently held of the De Ferrers by a succession of families. The manor of Priors originated as the rectory which was granted by William de Ferrers to the Knights Hospitaller in the 12th century, and held by them until the Dissolution. The Hospitaller presence at Priors was probably negligible, and the estate may have been run by stewards or bailiffs. A burial chapel for the Hospitallers seems unlikely.

It is natural to think that the chapel was a chantry but it cannot be identified with any of the late medieval foundations recorded at Stebbing. These are only two in number, a chantry founded by Sir John Bultell, vicar 1450-99, and an obit founded by John Gunnock. The Bultell chantry has been identified with the chapel that existed at the east end of the south aisle, and the Gunnock obit with the altar at the end of the north aisle (Livesey 1924).

Whilst the case for the De Ferrers having built the chapel and for a member of the family being buried in the tomb must remain unproven, there is clearly considerable circumstantial evidence for such a theory. Perhaps the strongest consideration in support of this argument is the fact that the early foundations discovered in the excavations show that there was already a building in this position before the church was rebuilt in the 14th century. It is difficult to explain such a building except in terms of a chapel belonging to the lords of the manor. It is possible that a chapel established in the 12th or 13th century for the performance of masses for the departed by a private chaplain might not have assumed the well defined identity of the typical late medieval chantry and thus have escaped recognition at the time of the Reformation and the inquests produced the chantry certificates. At Stebbing, the departure of the De Ferrers family in the 15th century would doubtless have facilitated this process, and also helps explain the dismantling of the tomb in the 16th century. An analogy for a chapel built by a lord of manor on the north side of a chancel can be found at Ridgewell where Dionysia de Montchensi built one at the end of the 13th century (Andrews 1996). This was not recorded as a chantry at the Reformation. As at Stebbing, here too there was twin-arched aperture between the chapel and the chancel.

The building debris and evidence of iconoclasm found in the tomb suggests it was destroyed at the Reformation in the 1540s, though the archaeological evidence did not permit exact dating and it cannot be excluded that it occurred later. Amongst this rubble were fragments of window glass, decorated floor tiles, and carved stonework, including a label stop in the form of a grotesque head, two pieces of tracery with acanthus decoration, and a fragment with ribbed decoration highlighted in red paint and gold. Some of these stones may have come from the chapel, but the range of material present makes it most unlikely that it all did. The head and the acanthus carving could well be from the famous stone screen in the chancel arch. Today, this is much restored. A 19th-century drawing (ERO 6919) shows that all the tracery within the three arches of which it consists had been knocked out. The stone with ribbed decoration resembles carving on the very mutilated reredos at the east end of the north aisle. This comprised seven arched niches which would have housed statues. At the top of the niches there is, or was, ribbed decoration with bosses. There are slight differences between this decoration and the fragmentary stone from the tomb, and the latter seems to have come from another reredos of similar design. The possibility that it was located in the chapel cannot be excluded. Other changes wrought in the chapel included reglazing and possibly reflooring. Window glass was a common find in deposits associated with this phase, and a small bowl-shaped hearth may have been associated with a re-leading of the windows. Two shallow infant burials seem to be 16th or 17th-century in date, but otherwise nothing was found to indicate how the chapel was used at this time.

In the 17th century, the building underwent changes which are more readily definable. It ceased to be used as a chapel and burial place, a fireplace was constructed at the west end, and a layer of floor make-

up six inches thick was laid down. Traces of several floor levels were found, some of them serving as bedding for pammets. A new doorway was inserted in the north wall and the window to the west of it partially blocked. It may also have been at this time that the west doorway was cut through from the former access to the rood stair. The roof was also renewed. The building thus clearly came to assume the function of a vestry. A coin and pottery from one of the older but perhaps not the earliest floor levels point to a date in about the final quarter of the 17th century.

The vestry continued to be adapted to meet changing requirements. Before 1856, and probably in the late 18th or early 19th century, the fireplace was demolished, a new floor of brick paviors was laid, and a brick partition wall with a fireplace on its east side was inserted just to the east of the north door. This arrangement has been largely followed in the 1993 refurbishment, the brick wall being taken down but replaced by a folding partition, and the paviors for the most part being replaced with carpet.

Acknowledgements

The discoveries made in the vestry were due to the alertness of Humphrey Barbier and David Lodge. The work was made possible through the co-operation of the Parochial Church Council and the staff of Lodge and Son Church Restorers. The archaeological excavation was carried out by Rachel Clark and Luke O'Sullivan of the Essex County Council Archaeology Field Team. The finds were processed by Phil McMichael and the spot-dating of the pottery was by Helen Walker. The illustrations have been prepared by Nick Nethercoat. The report on the floor tiles has benefited from discussion with Pat Ryan, whilst Dr. Jennifer Ward has been generous with advice on the De Ferrers and Elizabeth de Burgh.

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Notes

1. This render sheds light on the question of whether Essex rubble-built churches were rendered or not. By the 14th century, they unquestionably were. Evidence that this was always the case can be found at the ruined church at Alresford where rendered 12th-century walls can be seen preserved through the addition of later masonry to them.
2. Because of the circumstances of this investigation, the relationships between the archaeological features was not always entirely clear. Problems in the sequence are highlighted in the archive report which, together with the finds, is to be deposited at Saffron Walden Museum.
3. I am grateful to the Revd. S. Bazlinton B.D.S., L.D.S., for observations on the skeleton.
4. See Hope 1987, 68 and fig. 3. I am grateful to Tim Robey for information on this grave.
5. For observations on charcoal burials, see *British Archaeological News* 16, 1994, 1; and *British Archaeology* 19, 1996, 7.
6. These tiles were made by John Pond. PRO DL 29/74/1479. I owe this reference to Pat Ryan.

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A previously unknown medieval earthwork in Maldon; excavation behind the Moot Hall, 39 High Street, Maldon 1991

by Raphael M. J. Isserlin and Patrick Connell

Rescue excavation immediately to the north of the 15th-century Moot Hall unexpectedly located a substantial ditch, c.3 metres deep. Because of the difficult conditions on site, a precise date for the cutting of the ditch could not be established, but it was certainly pre-late 13th-century in origin.

Introduction

The site was investigated in advance of construction of an extension to the rear of buildings on the north side of Maldon High Street, under the direction of R. Isserlin.

The original aim of the excavation was to investigate potential medieval and later occupation deposits immediately behind the Moot Hall, which was originally built in the 15th-century as a residence of the D'Arcy family. Built in red-brick, with a ?defensive tower and an imposing High Street frontage, it was an important building in medieval Maldon and continued to be so after it became the Moot Hall of the town corporation. Although the initial aim of the excavation was to examine any surviving deposits and structures relating to this building, the discovery of a very large ditch came as a surprise, and became the focus of the excavation. Unfortunately, limitations of time and funding meant that the ditch was recorded under conditions more akin to salvage, rather than rescue archaeology.

The position of the site and the probable line of the ditch are shown in Fig.1. Two trenches (A and B in Fig.2) were opened up by machine, both extending northwards from the rear of the building. The westernmost trench (A) was 17.8m long, and was excavated to a depth of 1.3m, exposing the top of the natural gravels over its southern half. The stratigraphic sequence was recorded in section only, with minimal excavation by hand to recover dating evidence. Machine excavation was continued locally at the north end of the trench to a depth of 3.6m, following the discovery of a very large ditch, whose section was recorded from the machine bucket.

The easternmost trench (B) was 12.4m long and was excavated to confirm the ditch's general alignment. Apart from a plan of the trench itself, no record was made of the sequence on trench B.

Initial post-excavation work on this site was carried out by R. Isserlin. Following his departure from Essex County Council, this publication report has been prepared by P. Connell.

Stratigraphy and phasing

The stratigraphic sequence (Fig.3) is taken from the west section of trench A. No ordnance datum levels were recorded although modern ground level is indicated at the top of trench A.

Natural blue-grey gravels were exposed in the south and centre of trench A at a depth of 1.1-1.3m below modern ground level and in the extreme north of the trench at 1.0m. Natural deposits over the rest of the trench have been removed by later intrusive features. Phasing of the site was based on stratigraphic evidence provided by section drawings of trench A. Dating of these phases relies on the pottery, which was not plentiful. Phase 2 (late 13th/early 14th-century) is the only phase for which a date can be provided. Specific date ranges cannot be provided for any other phases due to the absence of safely stratified and datable material.

Phase 1

At the northern end of the trench a large ditch (cut 320) was dug (Fig. 1). This ditch was aligned SW-NE from the evidence in the east section and from that of trench B to the east. The full ditch profile was not visible but its near vertical north edge and more gradually sloping southern edge were apparent. The northern edge of the ditch is uncertain but the vertical edge suggests a possible timber revetment with a packing of gravel (316) behind the timbers. At the base of the ditch was a black silt fill (317) which may represent a primary fill of the ditch. Most of this fill was removed in the first recut of the ditch (cut 318). This cleaning out maintained the original profile of the ditch and also the ?timber revetment. Further silting of the ditch occurred (315, 314, 313) obscuring the postulated revetment, which was also sealed by a slip of natural gravel (310). The excavator considers that the revet-

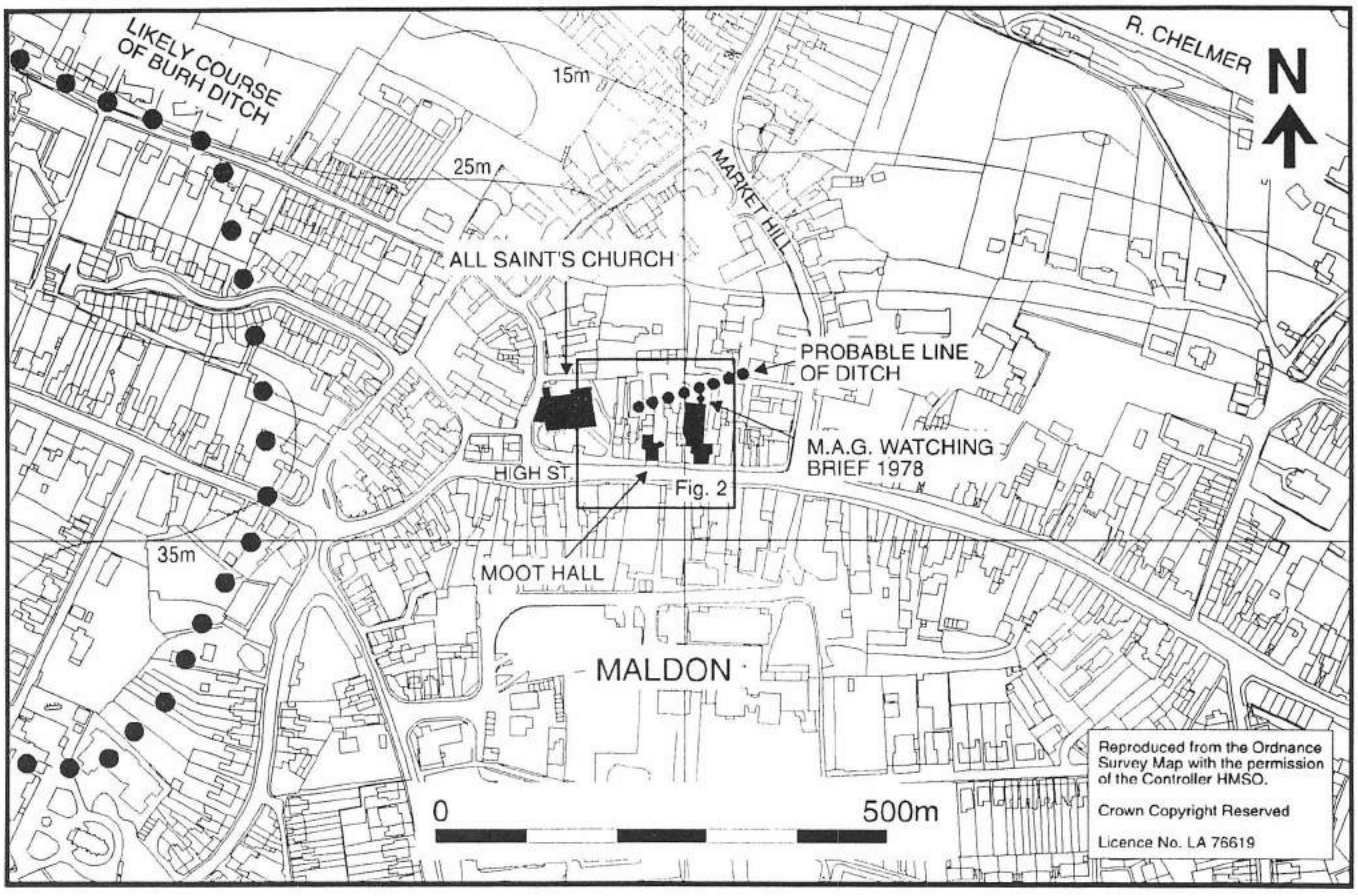


Fig. 1 Location of site in Maldon, showing likely course of *burh* ditch. © Crown copyright 87584M.

ment may have been robbed at this stage but simple decay may be equally likely. Certainly no timber was visible in the section.

To the north of the ditch an earth bank appears to be represented (303), lying below a black grey silt (302), possibly the decayed remnants of a turf facing to the bank. This deposit seals a gravel deposit which may either be natural or upcast from the first episode of ditch digging.

This earth bank was suggested by the excavator to be the main bank relating to the ditch, there being less immediate evidence for another bank to the south. Considering the topography of the area this seems unlikely (see discussion). A sequence of deposits to the south of the ditch (295-297) may represent upcast from the initial digging of the ditch, all that remains of what may have been a substantial bank.

A final recut of the ditch (cut 312) failed to preserve the original profile resulting in a shallower ditch with a rounded bottom and irregular shelving sides. Another episode of silting (311) followed, resulting in the effective loss of the ditch itself.

The dimensions of the ditch itself as revealed in the section are approximately 2.0m wide and around 1.4m deep but the original ditch itself was most likely much larger. The problematic nature of the investigation itself, and the destruction of important stratigraphic relationships between the original ditch cut, its bank(s)? and its fills make it difficult to demonstrate precisely. However, by projecting the known edges of the ditch and making a reasonable assumption about the level from which it was dug, it can be reconstructed as around 4 metres wide and 3 metres deep.

Phase 2 (late 13th/early 14th-century)

After the ditch had gone out of use a broad, shallow depression remained, corresponding to the upper portion of the original ditch cut. This was backfilled and levelled with three dumps of clay (307-305) on which a gravel surface (321) was laid down. This gravel surface seems to have subsided into the infilled ditch by up to 0.3m and is specific to this area. This surface may represent a roadway running parallel to the possible earth bank to the north or a much more local feature such as a floor or yard surface. Only further sections through the ditch could clarify this. It is probable, though it cannot be clearly demonstrated, that the earth bank(s) went out of use during this phase.

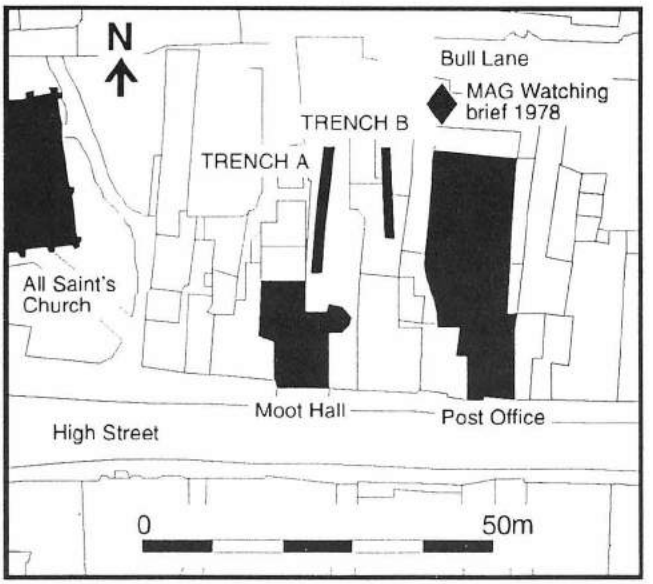


Fig. 2 Trench location plan, showing position of Maldon Archaeological Group watching brief 1978.

At the south of the trench, a shallow regular feature (cut 223) cutting into natural gravels is probably too wide for a beam slot and may therefore represent a drainage gulley.

Phase 3

An episode of levelling occurred across the length of the trench sealing the phase 2 gulley in the south. At the north, the levels above the original ditch were raised to be consistent with the remnants of the earth bank(s).

Two shallow features (cuts 278, 252) cut from this level may represent either a robbed-out wall trench as suggested by the excavator, or shallow pits and gullies in an external area.

Phase 4a

Phase 4a and 4b represent two successive builds of the hearth/oven from the same level.

Further levelling across the site occurred with once again a substantial deposit (293) over the ditch to compensate for subsidence. A large feature (cut 285) in the centre of the trench may represent a well.

At the southern end of the trench and cut from the new levelling a hearth or oven was constructed (cut 271). The sequence suggests that this hearth/oven was repaired or rebuilt on three separate occasions. A stoke-pit (cut 247) for the hearth/oven was filled with debris from raking out the probable oven.

A broad, shallow drainage gulley(cut 323) was cut at the south of the trench.

Phase 4b

Immediately following more levelling in the south and centre of the trench the stoke-pit was recut and the oven itself was probably rebuilt in the same position as its predecessor. The phase 4a drainage gulley was recut and remained in use.

Phase 5

Another episode of levelling occurred sealing the phase 4b oven and stoke-pit and possible well in the centre of the trench. This levelling (240) did not extend over the north end of the trench. A foundation trench for a wall (cut 234) was constructed truncating the latest rebuild of the oven directly below. ?Limestone fragments in a yellow sandy mortar formed the footing. The wall itself had been robbed but would have been free standing and a maximum of 1.1m wide. Random bricks and brick-bats indicate the upper wall was brick built. This wall may relate to the Moot Hall Floor surfaces were laid to the south of the wall itself. ?External levelling brought the northern surface level with that to the south.

Phase 6

The building indicated in phase 5 was demolished and sealed by another levelling which extended across the trench. In the south of the trench, the phase 5 surface is cut by a large feature (cut 210). This may represent a pit or more likely a robbed-out wall trench. At the north of the trench the latest phase 6 surfaces are cut by a large brick-lined pit filled with modern rubble.

The finds

The pottery

A total of 4.37 kg of medieval and post-medieval pottery was recovered.

A small stratified assemblage of medieval pottery was excavated from relatively secure contexts at the north of the trench. Much of the post-medieval pottery excavated could not be safely assigned due to extremely difficult conditions of excavation and is therefore largely unstratified.

Classification of the pottery has been made using Cunningham's typology for medieval and post-medieval pottery (Cunningham 1985, 1-4). Both fabric name and fabric number are used in describing the pottery. Rim types are described following Drury's classification (Drury 1993, 81- 4).

Medieval coarseware *(Fabric 20)*

The Fabric

The fabric is hard, well fired, even grey and generally reduced through to the core. Only one sherd is not fully reduced.

Inclusions consist largely of small amounts of mainly white (occasionally clear) quartz sand.

The fabric is visually similar to that of the pottery from the nearby Post Office excavation (Walker 1992).

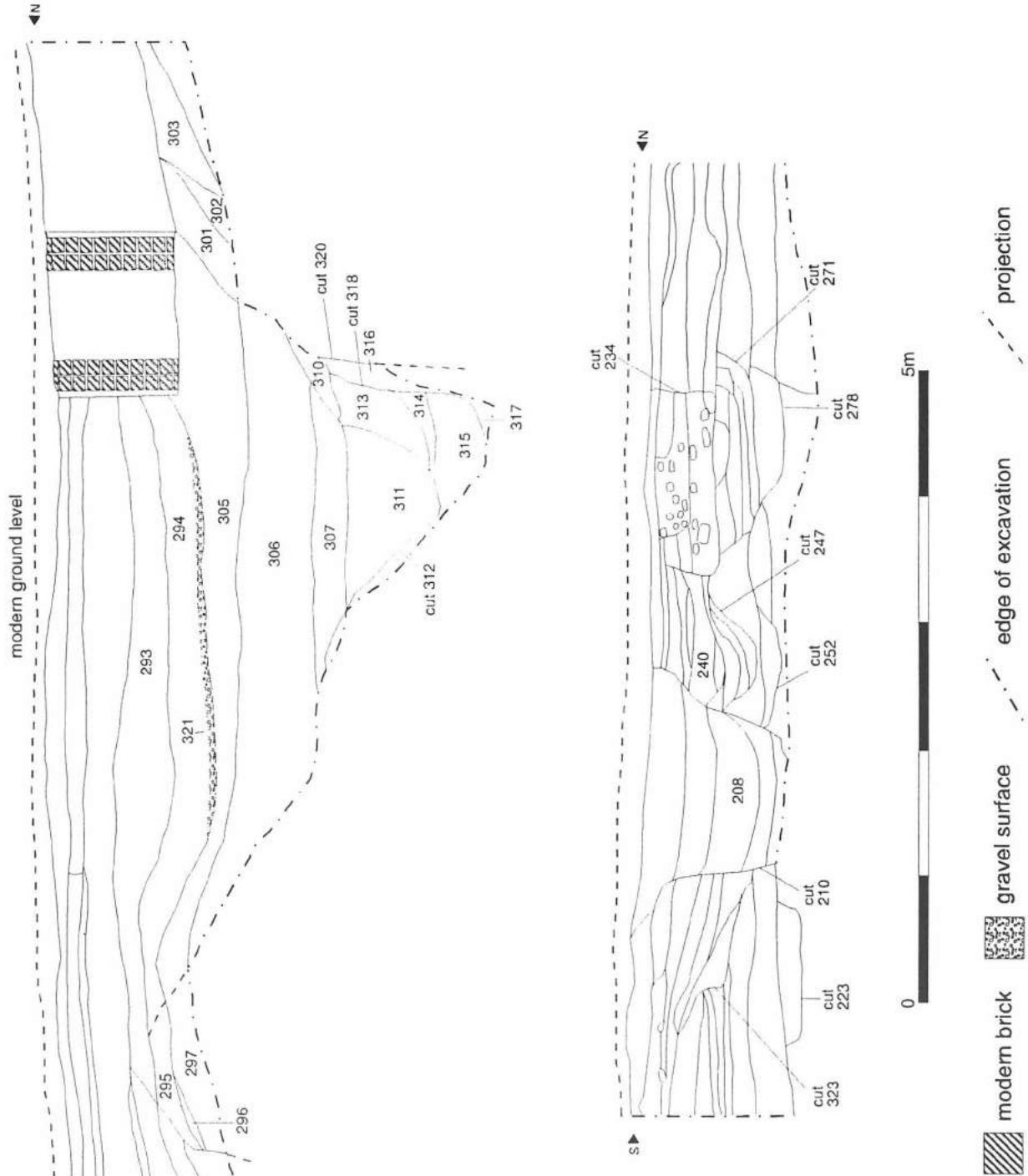


Fig. 3 Section drawings showing stratigraphic sequence in Trench A.

Range and dating

Represented in the assemblage are cooking pots, jugs and a more unusual shallow dish.

Such medieval coarsewares are difficult to place accurately within their general 12th-14th century span but rim form has been shown to provide some potential in placing sherds more accurately within this range (Drury 1993, 81-4).

1. Cooking pot. Rim sherd. Diameter of complete vessel *c.* 260mm. Rim type H1. Exterior sooting. (context 245). Fig.4.1.
   This rim form with a short neck and flat top was common in Chelmsford through the 13th-century (Drury 1993) and was present in 13th-century contexts at King John's Hunting Lodge, Writtle (Rahtz 1969, fig. 52). Cooking pots of the same rim type were a common product of the Mile End kiln site near Colchester around the middle of the 13th-century up to *c.* 1275 (Drury and Petchey 1975, fig.10).
   Cooking pots with the same rim type were recovered from the Maldon Post Office excavation (Walker 1992, 148-9).

2. Cooking pot. Rim sherd. Diameter of complete vessel *c.* 320 mm. Rim type E5 (context 306). Fig. 4.2.
   Cooking pots such as this, with a much reduced or non-existent neck below the rim have been suggested to be a development of the late 13th/early 14th-century (Drury 1993). This rim type can be paralleled with other cooking pots from Danbury Tile kilns (Drury and Pratt 1975, fig.57), Rivenhall (Drury 1993) and from the potteries at Great Horkesley (Drury and Petchey 1975, fig. 13), all of which have been suggested as being of early 14th-century date.

3. Shallow dish. Small fragment of ?rectangular dish possibly representing a skillet or dripping dish (Context 294).
   Context 294 also produced a medieval coarseware plain strap handle of late 13th/14th-century date.

A single sherd of reduced sandy orange ware (Fabric 21) with applied decoration and green glaze datable to the 13th/14th-century was recovered from context 305, along with a small amount of reduced medieval coarseware of similar date.

The source of the medieval coarsewares is difficult to state with certainty but the 13th/14th-century kilns at Mile End and Great Horkesley, north of Colchester are perhaps most likely. The fabrics are similar and this is the nearest known centre of production to Maldon.

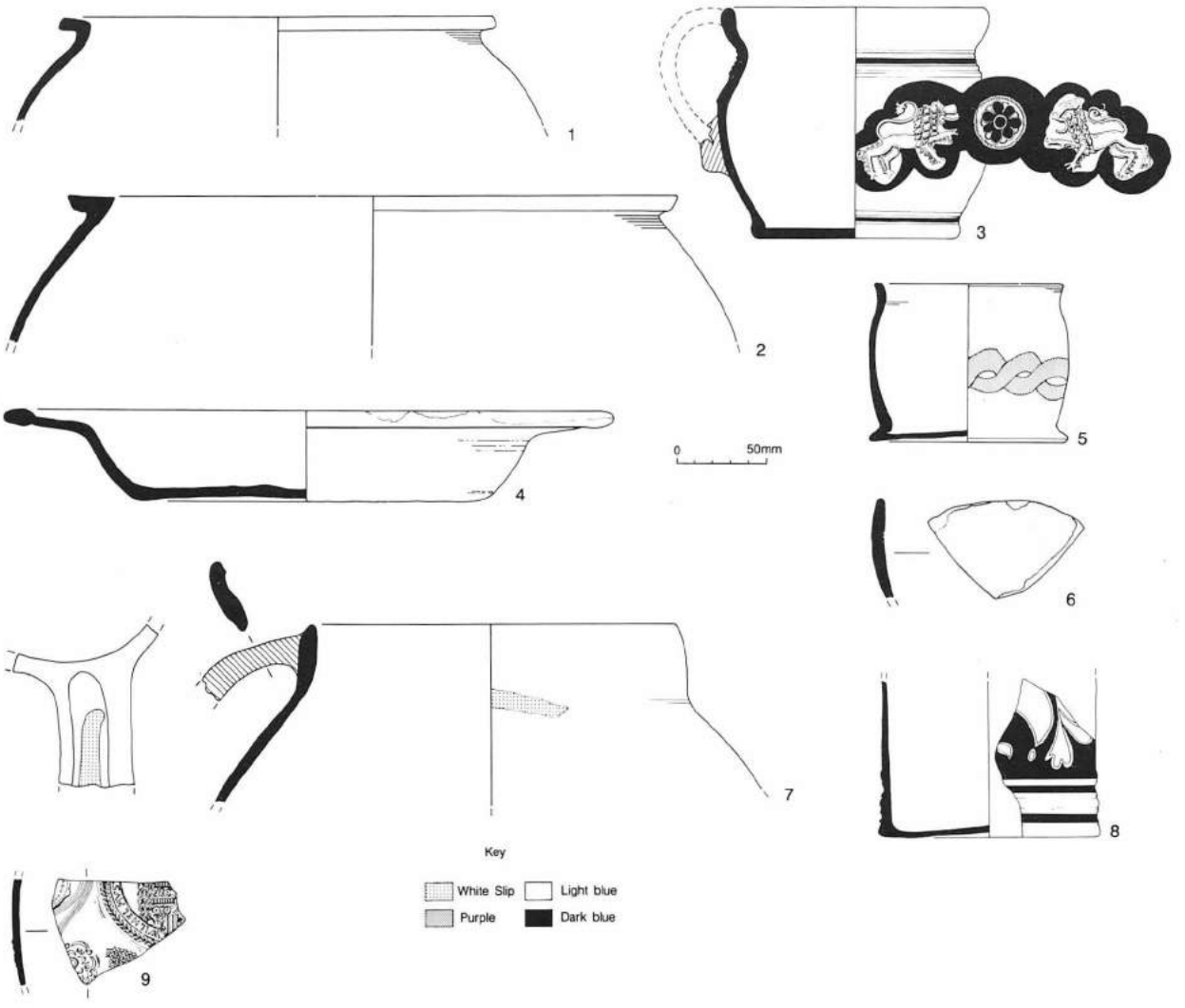


Fig. 4 Medieval and post-medieval pottery recovered from Trench A; 4.1-4.2; medieval coarseware, 4.3-4.8, 4.9; Westerwald stoneware, 4.5-4.6; tin-glazed earthenwares, 4.4; borderware, 4.7 post-medieval red earthenware.

Post-medieval pottery

The trench produced a small stratified group of post-medieval pottery which is catalogued below.

4. Chamberpot. Westerwald stoneware (Fabric 45F)
   This is a grey stoneware from Rhineland Germany, imported from the 17th to early 18th centuries (Hurst *et al.* 1986)
   Rim diameter: 150 mm. Pale grey fabric. Light grey salt glaze internal and external. Base and rim cordons in cobalt blue. Single handle.
   Three stamped and applied floral medallions. Central medallion flanked by two lions passant. Decoration outlined in cobalt blue (context 300).
   Everted rim and 'realistic' lion indicate a 17th-century date (Hurst *et al.* 1986). Fig.4.3.

5. Body sherd. Westerwald stoneware. Plain grey salt glaze. Stamped/applied and rouletted decoration. 17th/18th-century (context 300).

Nos 6-10 are from Context 208

6. Shallow flanged dish. Border ware (Fabric 42).
   Rim diameter 340mm. Height 50mm. Concave base. Internal yellow (plain lead) glaze with sparse patches green glaze. Knife trimming on base. Fig.4.4.
   The rim form is paralleled by those from mid 17th-century groups from London (Pearce 1992, fig. 20).

7. Strap handle. Late medieval sandy orange ware (Fabric 21). A hard, coarse earthenware with quartz sand inclusions and pimply surfaces (Cunningham 1985). Width 50mm. Single central groove. Sparse clear glaze. Probably from bunghole cistern or large jar.
   In Chelmsford this fabric is most common in 15th-century contexts and generally residual after the mid 16th-century. A likely production site is in the Ingatestone/Stock area (Cunningham 1985, 1).

8. Base sherd. Post-medieval red earthenware (Fabric 40). Uniform, light red, smooth earthenware with very fine sand tempering (Cunningham 1985, 1).
   Internal clear glaze with signs of external glazing. Probably of local origin and 17th-century date.

9. Body sherd. Black glazed ware (Fabric 40 bl.)
   Dark even external glaze. Sparse internal glaze. Possible jug. 17th/early 18th-century.

10. ?Bowl. Rim sherd. Tin-glazed earthenware (Fabric 46A)
    Cream fabric. Thick plain white external/internal tin glaze. Rim form closely paralleled by examples from late 17th/early 18th-century kilns at Norfolk House, Lambeth (Bloice 1971, fig 53.50).

Unstratified post-medieval pottery

Little post-medieval pottery from Maldon has so far been published. Although unstratified, the following group is published as a indication of some of the ceramic types that were available in the town in the post-medieval period.

Tin-glazed earthenwares (Fabric 46A)

1. Albarello/drug jar. Rim diameter 105mm. Height 88mm. Buff fabric. Off-white exterior/interior glaze. Three light blue bands above and below central manganese chain decoration. Convex sides between rim and base constrictions – Bloice Type 2 (Bloice 1971, see fig 58.87 for decoration parallel from Lambeth, though this example is less neatly executed).
   17th-century. ?English. Fig.4.5

2. Albarello/drug jar. Base. Diameter: 84mm. Pinkish internal/external glaze. Mid-blue banding above base constriction.
   17th-century. Pinkish glaze may indicate London origin (Garner 1948)

3. Bowl. Rim sherd. Rim diameter of original vessel 160mm. Plain rim. Off-white internal glaze/pinkish external glaze. Decoration in mid blue similar to Lambeth/Bristol dish about 1690-1710 (Garner and Archer 1972, pl.14). Fig 4.6.

Border Wares (Fabric 42)

1. Chamber pot. Base 140mm diameter. Green glaze internal/external. Pearce Type 2 (Pearce 1992, fig 41.333). Late 17th-century.

2. ?Chamber pot. Small base fragment. Similar to 1, above.

3. Deep dish. Base fragment - diameter of original vessel *c.* 140mm. Internal yellow glaze, (Pearce 1992, fig 21.46-49). Late 16th to late 17th-century.

4. Flanged dish. Rim sherd – diameter of original vessel *c.* 360mm. Folded rim profile similar to Pearce (1992, fig. 21.33Y). Mid/late 17th-century.

Post Medieval Red Earthenware (Fabric 40)

1. Cistern/Large storage jar. Rim diameter *c.* 200mm. Unglazed. Slip painted. Strap handle with single central groove – width 42mm. Cunningham's vessel form C15 (Cunningham 1985, fig 6.37). Late 15th/16th-century. Fig.4.7.

2. Flanged dish. Rim sherd. Metropolitan slipware. Rim diameter *c.* 380mm. Reduced grey core. Slip trailing under clear lead glaze. Brick red unglazed exterior. Rim decoration paralleled in Jennings (1981, fig 41.662). The nearest production site of Metropolitan slipware was at Stock.

3. Five glazed sherds, Glaze varies from almost black through olive to clear. Black glazed base sherd (probable jug). All over glaze. Other sherds glazed only internally. Production site unknown but probably local.

Westerwald Stoneware (Fabric 45 F)

1. Tankard/Mug. Base diameter 120mm. Decorative ?floral motifs outlined by incised lines and surrounded by cobalt blue. Late 17th/18th century. Fig.4.8.

2. Body sherd. Applied and incised decoration. Legend partially reads 'WILHELMUS'. Fig.4.9.

Conclusion

The small amount of medieval coarsewares are unremarkable apart from their value in helping to date the sequence of events in the ditch (see discussion) and appear to be of mid/late 13th-century to early 14th-century date. Some parallels can be found with material excavated from the nearby Post Office site (Walker 1992).

The stratified post-medieval pottery represents a group of household wares probably deposited in the later 17th or early 18th century. The unstratified post-medieval pottery fits in with this date range and taken together provide a glimpse of the variety of ceramics available in post-medieval Maldon. No unusual continental imports were noted and the composition of this (admittedly small) assemblage is no different from that which might be expected from a contemporary inland site.

Ceramic building material

A small number of roof-tile fragments were recovered from stratified

contexts one of which derives from a pegtile. Tile thickness varies from 11-16mm and the fabric is red/orange, sometimes with a reduced core and heavily sand tempered.

Animal bone
Recovered from the primary ditch fill (context 311) were two rib fragments of large mammal, probably Bos or Equus, one of which displays possible butchery marks. (O.Bedwin pers.comm.)

Metalwork
One copper-alloy sheet collar, not closely datable (H.Major *pers.comm.*), was retrieved from context 208.

Worked flint
One flake from the primary ditch fill (context 311) shows some minor edge retouch. ?Neolithic/Bronze age. (O. Bedwin *pers. comm.*)

Clay Pipes
Three clay pipe bowls datable to around 1680-1710 (H.Major *pers.comm.*) came from context 208, a fill of the large cut feature (210) at the south of the trench. A further five clay pipe stems were recovered from context 206, one of which may be of 18th-century date.

Discussion

The events indicated in the southern part of the section are of a 'local' nature, while the ditch itself appears to be on such a scale as to be of much greater significance to the archaeology and history of the town on a wider scale. The original dimensions of the ditch at around 4 metres wide and 3 metres deep suggest a major, presumably defensive, enclosure. The key questions to be answered concern the date of the ditch's construction and whether it is of Saxon (relating to the *burh* constructed by Edward the Elder in 916), or later medieval date. Bearing in mind the nature of the excavation and the limited amount of evidence there are few things which can be said with certainty concerning the nature and origin of the ditch itself.

Dating
Unfortunately the ?primary fill of the ditch produced little in the way of datable evidence. Most of this fill had been removed in the first major recut of the ditch.

However, medieval coarsewares datable to around the middle to late 13th-century were recovered in small amounts from later silting episodes in the ditch (311) and from phase 2 contexts representing levelling and backfilling (Fig.3). Although therefore little can be said about the original date of the ditch, it had probably gone out of use by the early 14th-century. However, 12th-14th century pottery recovered from silting following the latest recut suggest that the ditch may still have been at least partially open in the earlier part of this period. It must be stressed however that the paucity of diagnostic ceramic material makes these suggestions somewhat tentative.

Ditch profile
An accurate ditch profile is difficult to extrapolate confidently from the section. The northern side in particular is uncertain but some interesting points are apparent. Firstly, the steep ditch profile suggests that the northern side *may* have originally been revetted. No timber was noticed but this may have been robbed or more likely simply decayed. The southern side of the ditch appears to have been more gently sloping producing an irregular profile. Such a profile would be difficult to parallel with other ditches of Saxon or later medieval date. The ditch excavated at 20 Spital Road believed to relate to the *burh* defences, shows a profile very unlike that under discussion (Brown 1986). The ?early 12th-century town enclosure ditches at Saffron Walden are of a flat-bottomed V-shape (Basset 1982) and those at Chipping Ongar are of a shallower U-shaped profile (Eddy 1982).

It has been suggested by the excavator that the main bank relating to the ditch lay to the north of the ditch itself. Certainly the evidence of the section is suggestive of this, but it is more likely that the bank to the south has simply been more effectively levelled in the period after the ditch went out of use. If the bank/rampart was constructed to the north of the ditch then this would have been the feature closest to the break of slope at the top of Market Hill with the ditch itself upslope of the bank, surely an unlikely arrangement. The area enclosed by the ditch must have been to the south along the present High Street with the defensive earth bank to the south of the ditch.

Ditch alignment
In addition to the two trenches dug immediately behind the Moot Hall (Fig. 2), Paul Brown of the Maldon Archaeological Group noticed a cut feature probably corresponding to the southern edge of the ditch during a watching brief behind the Maldon Post Office in 1978 (Isserlin 1992, P. Brown *pers. comm.*). From this evidence it is possible to gauge the roughly east - west alignment of the ditch close to the break of slope at the top of Market Hill. This would be an appropriate place to site a defensive structure of any period (Fig. 1).

A ditch on this alignment does not fit in particularly well with what is already known about the siting of the late Saxon *burh* of 916 AD. (For a comprehensive discussion of the evidence relating to the position of the *burh,* see Bedwin 1992). If the ditch is of Saxon date and a potential *burh* candidate, then extending the line of the ditch from Spital Road to the Moot Hall and then returning along Beeleigh Road would substantially alter what is currently thought to be the outline of the *burh* defences. This new outline would be very different from Strutt's view and plan of the Maldon earthwork published in 1774. It would also encompass All Saints church which is clearly shown outside the line of the *burh* in Strutt's work. In view of this it appears

unlikely that the Moot Hall ditch can be identified at present with the *burh* defences of 916 AD.

If this is the case, then perhaps the most likely possibility is that the ditch represents the first tangible evidence for a later medieval town enclosure postulated in earlier literature (Eddy and Petchey 1983). Its strategic position (both for defence and trade), the presence of a mint through most of the 10th and 11th centuries and the granting of a royal charter by Henry II in 1171 imply that Maldon was sufficiently important to display its status and protect its position by the construction of an earthwork enclosure. Maldon's three medieval churches and the presence of a market are also indicative of its wealth and position in the county. Although essentially 'new towns' founded around a castle, Saffron Walden, Chipping Ongar, Pleshey and Castle Hedingham were all provided with town defences sometime before or around the middle of the 12th-century. Even though these towns benefitted from powerful patronage it might be considered unusual if a town such as Maldon did not follow suit.

The area which would seem to have been enclosed by this earthwork is known to have been the main focus for medieval and probable late Saxon development. Several rescue excavations along the High Street (leading to the Hythe and medieval waterfront) have produced later Saxon, Saxo-Norman and later medieval pottery, structural evidence and finds (Eddy 1979 and the Essex Sites and Monuments Record, PRN 7725-7).

Having said this it must be admitted that there is little evidence to point to when the ditch was first dug, the ?primary fill providing nothing in the way of datable finds. Pottery from backfill layers both in and over the ditch suggest that it was probably redundant by the late 13th/early 14th-century. A single sherd of early medieval sand-and-shell-tempered ware (Fabric 12) with a date range from the 11th-13th centuries (H.Walker *pers.comm.*) was recovered from a fill of the ditch in Brown's excavation. Its context however is uncertain and provides no clear evidence.

If the enclosure was constructed sometime around the early/mid 12th-century as might be expected during this period then this gives a useful life of around 150-200 years for this section. At least two episodes of ditch cleaning/recutting imply its continued importance over this period.

A major problem here is that the proposed alignment of the ditch would run directly through or very close to the late ?12th-century All Saints church (Fig. 1) and the medieval marketplace or (surely unlikely) exclude them altogether from the enclosure. It may however be the case that the alignment is inaccurate through insufficient data and that only further excavation would help solve this dilemma.

In the face of a lack of evidence, other possibilities cannot be ruled out though these may be considered less likely.

The preference of King Edward to use Maldon as a base while the construction of the *burh* at Witham was underway has been considered briefly in the literature and may imply a defensive structure already in existence in the town (Bedwin 1992). Alternatively, the possibility of the ditch representing some form of temporary encampment, thrown up in a commanding position, during the work at Witham cannot be entirely discounted. There is no reason why such a defensive structure dating from the early 10th-century should not have remained in use or been recut at a later date as part of a 12th-century town enclosure.

The post-medieval pottery from the site provides a glimpse of a reasonably varied domestic assemblage dating principally from the 16th-18th-century. The range of local and non-local English wares and imported pottery from the Rhineland and possibly the Netherlands presumably relate to local household activity but little else of note can be said.

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St. Mary, Maldon and St. Martin-Le-Grand, London

by W. R. Powell

The Chelmsford Diocesan Yearbook (1995/6) is more than a managers' manual. In future years it will take its place, beside the 78 previous editions, as a record of the diocese since its foundation in 1914. And its historical interest is greater than that, for the book lists, under each parish, the name of the patron who is entitled to 'present' the rector or vicar when a vacancy occurs. The system of patronage goes back to the early days of the English Church,[1] and some of the present patrons have titles rooted in charters granted by manorial lords in Norman or even in Anglo-Saxon times. This paper describes such a case.

The *Yearbook* states that the rectory of St. Mary, Maldon (now combined with Mundon) is under the patronage of Westminster Abbey. Since the abbey appears in Domesday Book among Essex landholders one might expect to find Maldon listed among its manors.[2] But Westminster did not acquire St Mary's until 1503, when the college of St. Martin-le-Grand, London, was appropriated to the abbey for the endowment of Henry VII's chapel. The early history of St. Mary's must therefore be sought under St. Martin.

St. Martin-le-Grand was founded in the mid-11th century by a priest, Ingelric, and his brother Girard.[3] A charter of William I in 1068 confirmed its possessions, including the church of (St. Mary) Maldon with two hides of land and tithes.[4] Soon after that, following Ingelric's death, his lands, and those which he had given to St. Martin's, were seized by Eustace, Count of Boulogne. Later, between 1075 and 1085, the count, 'moved by penitence', restored some of St. Martin's possessions, including Maldon.[5] Eustace's penitence was limited: according to his charter of restoration he had kept for himself the better land which Ingelric had held *ex officio* as dean of St. Martin-le-Grand. And he also retained rights of lordship over St. Martin's estate at Maldon, as appears in Domesday Book, as follows:[6]

> Maldon, which was held in King Edward's time [1066] by a free man, as 1½ hides and 30 acres, and afterwards by Ingelric, is held of the Count by St. Martin of London ... There also 30 acres were held in King Edward's time by a free man, whom Ingelric annexed: St. Martin holds it now of the Count, with another free man who had 30 acres. Ingelric attached these men to his hall.

From this account it seems that the tenements annexed by Ingelric were assessed for 'geld' at a total of 2 hides 30 acres. We cannot be sure what this means in terms of statute acres; but it was a substantial estate.

Eustace of Boulogne became a monk at Cluny *c.* 1125, bestowing his lands on his daughter Maud, who at the same time married Stephen of Blois, Count of Mortain (the future King Stephen).[7] The overlordship of St. Martin's estate at Maldon was, however, given by Henry I to Stephen's brother Theobald IV, Count of Blois.[8] During Henry I's reign the estate was augmented by Ranulf de Venions, who gave St. Mary's church a marsh at Maldon called Becehauhapre which he himself had received from the king for his service.[9] But during the troubled reign of Stephen the canons of St. Martin had difficulty in maintaining control of the estate. By a writ probably issued early in 1140 the king ordered Geoffrey de Mandeville, whom he created Earl of Essex a few months later, to restore to the canons the land at Maldon which Walter de Provins, the bailiff of Count Theobald of Blois, had taken from them.[10] Between 1141 and 1143 the Earl wrote to the Bishop of London confirming the canons' right to the land at Maldon of which they had been unjustly deprived after Henry I's death. He added that henceforth they should hold all their lands and churches at Maldon and other named places in Essex as his tenants, quit of all works, sheriffs' aid, and pleas.[11] The Earl's claim to overlordship at Maldon was presumably based on grants of land there which in 1141-2 he extorted from both the Empress Maud and Stephen.[12]

Geoffrey de Mandeville had little time to carry out the king's order or his own expressed intention on behalf of St. Martin-le-Grand, for he died as a rebel in September 1144. In the previous June the canons had obtained a papal bull confirming their rights to the church at Maldon.[13] But they still had two claims outstanding in the borough.[14] One related to the marsh which Ranulf de Venions had given to St. Mary's church. The other concerned a house (*terra sua de burgagio*) in which formerly had dwelt the vicar of St. Mary's, a priest named Wadlac. It was alleged that Walter de Provins, Count Theobald's bailiff, had disseised St Martin-le-Grand in favour of Wadlac's sons and daughters. At that period parish priests were often married,[15] and this was evidently a dispute concerning the occupation of the vicarage after Wadlac's death. Most of the facts about the case come from mandates sent to Count Theobald's officers at Maldon by Henry of Blois, Dean of St. Martin-le-

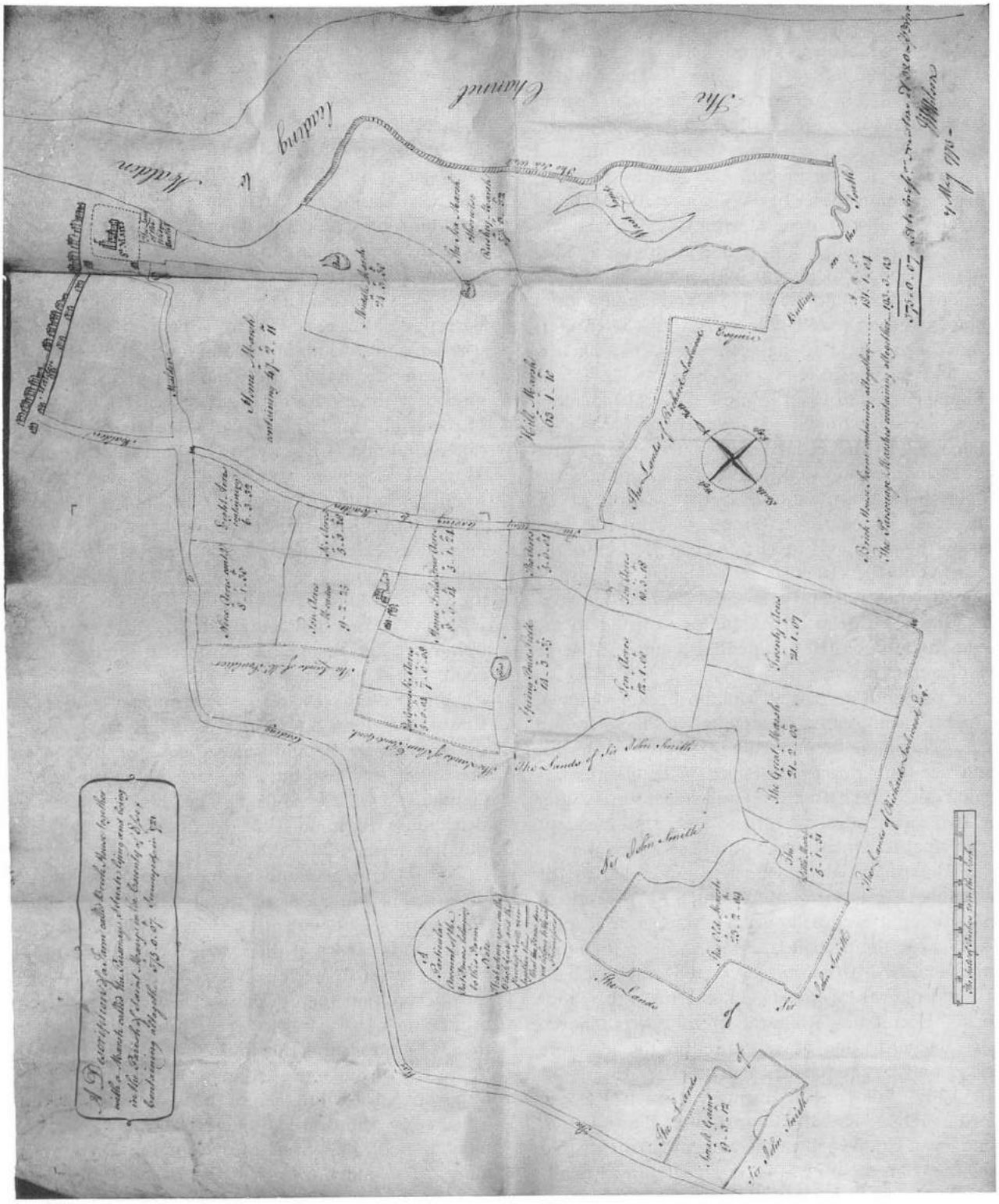


Fig. 1 Map of Brickhouse farm and Parsonage Marsh, Maldon 1721. Westminster Abbey Muniments, Deed 8134.

Grand, ordering them to restore the properties to St. Martin. Henry was also Bishop of Winchester and King Stephen's brother. No doubt he also put pressure on the king to vindicate St. Martin's claims, and *c.* 1147 Stephen issued a series of writs to that effect.[16]

In 1158 Henry of Blois, along with his nephew William, Count of Boulogne, constituted nine prebends in St. Martin-le-Grand, each endowed with Essex lands belonging to the college.[17] The Maldon estate was assigned to support two prebends, to be held by Richard de Montacute and Robert de Costello; the income from Maldon church was to provide lamps and other goods for St. Martin's church. The deed recording this transaction describes William of Boulogne as the patron (*advocatus*) of St. Martin. William, who was King Stephen's younger son, had evidently succeeded his uncle Theobald of Bois as overlord of St. Martin-le-Grand. He died childless in 1159, and the honour of Boulogne was then seized by Henry II.[18] No later reference has been found to the connexion between the honour and St. Martin-le-Grand's estate at Maldon. A list of knights' fees in Essex compiled in 1212 includes the two prebends in St. Mary's church, Maldon, belonging to St. Martin-le-Grand, but the jurors providing the information said that they did not know the origin of the endowment.[19] It seems clear, however, that by then St. Martin-le-Grand was directly controlled by the king, as a royal free chapel.[20] Under the king, St. Martin-le-Grand exercised peculiar jurisdiction over its prebends and prebendal churches, including Maldon. The dean of the college collated to the prebends and appointed a stipendiary curate to serve St. Mary's church.

The prebendal estate at Maldon became known, presumably from early occupants, as Ketons and Coopes. The name first appears in a 14th-century list of the assize rents due to the estate.[21] The list itemizes ten tenements (one with a shop and solar), three other shops, two vacant sites, a croft and an acre of meadow. The principal tenement was Southouse and Sayers, a marshland farm which had been subinfeuded to the Grey family, Lords Grey of Wilton.[22] As a result of subinfeudation it eventually became a separate manor, and was lost to the prebendal estate. Among the other tenements in the 14th century list were Kanteys, Chalfs Crofts, and the vacant Priests Hawe. One of the shops was called Beemfletes, while the meadow was Church Acre at Baynard. The other entries in the list were described only by the tenants' names.

In 1409, following a dispute between Richard Clyfford, prebendary of Ketons, and John Tilton, prebendary of Coopes, it was decreed in Chancery that the income from the prebendal estate should be divided equally between them, subject to the payment by the prebendary of Ketons of a small annual pension to the Dean of St. Martin-le-Grand.[23]

From the early 16th century Westminster Abbey customarily leased out the prebendal estate.[24] The parochial inquisition made by the Commonwealth government in 1650 reported of St. Mary, Maldon:[25]

> There is an Impropriate Parsonage which is in the hands of the heires of Edmond Church, lately deceased, by lease from the Abby of Westminster, worth £280 per Ann., for which they pay onely £24 per Ann. to the School at Westminster.

A 21-year lease of Ketons and Coopes, granted in 1684 to Anne, widow of Thomas Blount, included, besides land and farm buildings, the tithes and the chancel of St. Mary's church, but not the advowson.[26] The annual rent was £24 and 20d, plus £10 payable to the vicar of St. Mary's. Mrs Blount and her husband had been leasing the estate since 1670.[27] They would, no doubt, have paid substantial fines for renewal. She took out another lease in 1691.[28]

In 1721 the prebendal estate, comprising 375 acres, was locally known as Brickhouse Farm and Parsonage Marshes.[29] Then, as later, the farm house was half a mile south of Maldon town.[30] Some 100 a. of the farm was arable, the remainder being marshland pasture at the mouth of the Blackwater. Later surveys of the estate, made in 1759, 1770 and 1784, give the same total area.[31] But in 1844, when the tithes of St. Mary, Maldon were commuted, Brickhouse Farm was found to contain 427 acres, out of a total parish area of 1,348 acres.[32] Westminster Abbey, as owner of the farm, was exempt from all tithes. Southouse Farm, which had once been part of St. Martin-le-Grand's prebendal estate, belonged in 1844 to Abraham Johnson. It then contained 246 acres, which suggests that the original estate had comprised some 673 acres, about half the parish.

In 1869 the estates of Westminster Abbey were conveyed to the Ecclesiastical Commissioners, who in the same year bought out a lease of the Maldon prebendal estate granted by the Abbey in 1866 to George and Charles Hurrell. The Commissioners sold Brickhouse Farm in 1920 to Stanley O. Ratcliff of Maldon, farmer.[33]

St. Martin-le-Grand, as impropriator, was responsible for providing a priest to serve St. Mary's church. The earliest known priest was Wadlac, who was described in Henry of Blois' writs of *c.* 1143 x 1147 as having previously been his vicar at Maldon In spite of that description there seems to have been no formal ordination of a vicarage. A return of 1254 states that there was no vicar.[34] But in 1650 it was reported that 'there is a vicarage presentative supplied by Mr. John Simpson ... the value thereof thirty pounds per Ann.'[35] Since 1649 Simpson had been receiving a salary augmentation of £20 from the Commonwealth government.[36] Later incumbents, down to the 19th century, had the status of perpetual curates, with life tenure.[37] In 1844 the perpetual curate was granted a rent charge of £270 from all titheable land in the parish (excluding the tithe-free land belonging to Westminster Abbey). In 1866, under the District Church Tithes Act, the benefice was declared to be a rectory.[38]

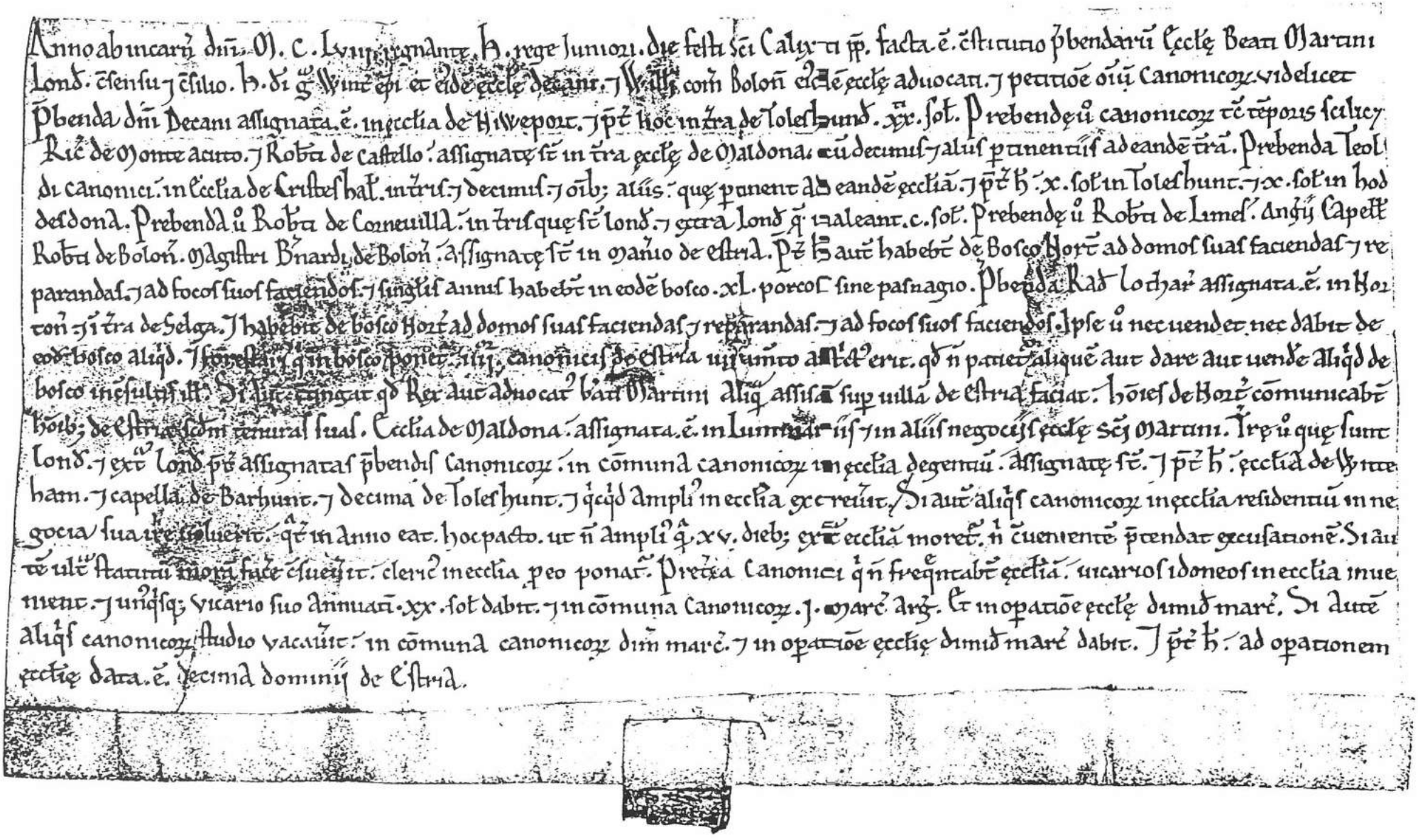


Fig. 2 Deed constituting the Prebends of the College of St. Martin-Le-Grand, London 1158. Westminster Abbey Muniments, Deed 13247.

APPENDIX I

Deed constituting the prebends of the college of St. Martin-le-Grand, London, 1158

See Figure 2

Translation

In the year of Our Lord 1158, during the reign of King H[enry] the younger, on the Feast of St. Calixtus the Pope [14 October] there was made the constitution of the prebends of the church of the Blessed Martin of London, with the consent and counsel of H[enry], by God's Grace Bishop of Winchester and Dean of that church, and of William, Count of Boulogne, patron of the same church, and on the petition of all the canons, that is to say: The prebend of the Lord Dean was assigned in the church of Newport and in addition to that, in the land of Tolleshunt [Knights] 20 shillings. The prebends of the canons were assigned at the same time, that is to say: to Richard de Monte Acuto and to Robert de Castello in the land of the church of Maldon with the tithes and other things pertaining to the same land. The prebend of Canon Teoldus in the church of Chrishall in lands and tithes and everything else pertaining to the same church, and in addition to that, 10 shillings in Tolleshunt [Knights] and 10 shillings in Hoddesdon [Herts]. The prebend, in truth, of Robert Cornvilla in the lands in London and outside London which are worth 100 shillings. The prebends, in truth, of Robert de Limes [ey], Angerus the chaplain, Robert de Boulogne, [and] Master Bernard de Boulogne were assigned in the manor of [Good] Easter. In addition to that they shall have [timber from] the wood of [Newarks] Norton [in High Ongar] to make and repair their houses and to make their fires, and every year they shall have in the same wood 40 pigs without pannage. The prebend of Ralph Lothar was assigned in [Newarks] Norton and in the land of Shelley, and he shall have [timber from] the wood of [Newarks] Norton to make and repair his houses and to make his fires; but he shall not sell nor give away anything from the same wood, and the forester stationed in the wood shall be bound by oath to the four canons of [Good] Easter not to permit anything to be given or sold from the wood without consulting them. If it should happen that the king or the patron of the Blessed Martin should make any assize concerning the 'vill' of [Good] Easter the men of [Newarks] Norton shall join with the men of [Good] Easter according to their tenures. The church of Maldon was assigned to provide lamps and other goods for St. Martin's church. The lands, in truth, in London and outside London, apart from those assigned to the canons' prebends, were assigned for the support of the community of the canons dwelling in the church, and besides that, the church of Witham and the chapel of Bonhunt [in Wicken Bonhunt] and the tithe of Tolleshunt [? Knights] and any other income from the church. If, also, any of the canons dwelling in the church should wish to go out on private business he may go four times a year on condition that he is not absent from the church for more than 15 days without offering a sufficient reason. If he is habitually absent longer than the statute a clerk shall be placed in the church on his behalf. Moreover the canons who do not attend the church regularly shall provide suitable vicars for the church and each of them shall give to his own vicar 20 shillings a year and to the community of canons one silver mark, and for the work of the church half a mark. Also, if any of the canons has been absent for study he shall give to the community of the canons half a mark and for the work of the church half a mark. Moreover the tithe of the demesne of [Good] Easter has been given for the work of the church.

MS [Latin] Westminster Abbey Muniments, Deed 13247. Copy in W.A.M. Book 5 (St. Martin-le-Grand Cartulary), xviii d.

Description 30.5 cm. across the top and 18 cm. down the left hand side, including a fold of 1.6 cm. Remains of seal tag.

Notes The clauses in this deed constituting nine prebends in St. Martin-le-Grand seem to have confirmed previous arrangements, as appears from two royal charters of 1145 x 1147 (see below, s.v. *Witham*). Henry of Blois, Bishop of Winchester and Dean of St. Martin-le-Grand, died in 1171. In *c.* 1141-3 he had also been Dean of the College of Waltham Holy Cross.[39] William, Count of Boulogne, died in 1159.

All the places mentioned in the Deed, except London and Hoddesdon, are in Essex. In the following notes they are listed in the order of their first appearance in the Deed of 1158. References to William I's charter of 1068 are taken from *Regesta Regum Anglo-Normannorum*, i, no. 22.

Niweport [Newport]. Newport church was among the possessions confirmed to St. Martin-le-Grand by Pope Alexander III in 1077.[40] Since Newport was a royal manor in 1086[41] it is likely that the church had been given to St. Martin by the King. The church was confirmed to St. Martin by Henry I in 1108 x 1122,[42] by Geoffrey de Mandeville in 1141 x 1143,[43] by Pope Honorius III in 1144,[44] and by Stephen in 1139 x 1152.[45] St. Martin was also patron of the hospital of St. Leonard, Newport.[46]

Toleshund', Toleshunt [Tolleshunt Knights] was confirmed to St. Martin-le-Grand by William I in 1068. Along with Maldon, it was later seized by Eustace, Count of Boulogne, but was restored by him to the college between 1075 x 1085.[47] In 1086 the manor was held by St. Martin of Eustace, Count of Boulogne.[48] Stephen granted to the college warren at Tolleshunt in 1135 x 1140.[49] Geoffrey de Mandeville confirmed Tolleshunt to St. Martin in 1141 x 1143.[50] The manor became known as Grove Hall and later as Middle Farm.[51]

Maldona [Maldon]. See above.

Cristeshal [Chrishall] was confirmed to St. Martin by William I in 1068. In 1086 the manor was held by Eustace, Count of Boulogne.[52] In 1145 x 1147 Queen Matilda ordained that the canons of St. Martin should hold Chrishall church with its land, men and appurtenances, and this was confirmed by the King.[53]

Hoddesdona [Hoddesdon, Herts.] One hide of

land in Hoddesdon was confirmed to St. Martin by William I in 1068. Like Good Easter (below) it was later seized by Eustace, Count of Boulogne, but was restored by him to the college between 1075 and 1085. In 1086 St. Martin held it of Count Eustace.[54]

Lond[on]. The college of St. Martin-le-Grand stood within the City walls in the street of that name.[55] The college's possessions in London included the soke of Cripplegate and seven parish churches.[56]

Estria [Good Easter], with its berewick of Mashbury, was confirmed to St. Martin by William I in 1068. Along with Maldon it was later seized by Eustace, Count of Boulogne, but was restored by him to the college between 1075 and 1085.[57] In 1086 Good Easter was the only manor held by St. Martin of the King in chief.[58] Before the Conquest it had been held by Ailmar, a thegn of King Edward. Domesday Book adds that the manor had been given to St. Martin by Count Eustace, but that he had retained its berewick, comprising half a hide and 20 acres, for himself. Good Easter was confirmed to St. Martin by Pope Alexander III in 1077.[59] Stephen granted to the college warren there in 1135 x 1140.[60] Geoffrey de Mandeville confirmed Good Easter to the college along with Maldon (see above) and other lands, in 1141 x 1143.[61] In 1143 x 1147 Queen Matilda ordered the constable of the honour of Boulogne not to trouble St. Martin's land at Good Easter any further concerning a small debt claimed by his men.[62] At the same period the King quitclaimed to the college pleas and assizes of assarts in the same land.[63] Also in 1143 x 1147 the King and Queen granted to St. Martin half a hide of land at Mashbury, which had recently been the subject of litigation.[64] That was, no doubt, the berewick mentioned above. The grant was confirmed in 1147 x 1153 by Eustace, Count of Boulogne, son of the King and Queen.[65]

Nort[on] [Newarks Norton in High Ongar]. The descent of this manor has already been traced.[66] To that account can be added Geoffrey de Mandeville's confirmation of 1141 x 1143[67] and Stephen's grant in 1143 x 1147 of freedom from pleas and assizes of assarts.[68] The 'wood of Norton' mentioned in the Deed survived down to the 19th century as 'Newarks Wood'[69] In 1208 there was a dispute concerning land in this manor between the prebendaries of Good Easter and the prebendary of Norton.[70]

Selga [Shelley] adjoined Newarks Norton to the west.[71] This seems to be the only reference to it in early records relating to St. Martin-le-Grand.

Witham. The valuable church of Witham was given to St. Martin by King Stephen and Queen Matilda in 1143 x 1147 in order to endow a tenth prebend in the college.[72] Although the royal intention was not carried out, it shows that the nine prebends described in the Deed of 1158 had been constituted, or at least planned, by 1147. The phrase in the Deed relating to Witham church, which looks like an afterthought, is somewhat vague. Perhaps for that reason there was later a dispute between the dean and the chapter of St. Martin over control of the church and its revenues. That was eventually submitted to the arbitration of the Bishop of London, who in 1223 appropriated the church to the chapter, but at the same time ordained a vicarage for Witham, of which he himself became patron *ex officio*.[73]

Barhunt [Bonhunt in Wicken Bonhunt]. The form of the name in the Deed is unusual, but is matched by 'Borehunt' in 1278.[74] The identity of the chapel is proved by a reference in the Valuation of Norwich (1254): 'Wykes [Wicken Bonhunt] with the chapel ... the canons of St. Martin receive five shillings.'[75] It was St. Helen's chapel, which was later attached to the hospital of Newport.[76] The building, dating from the later 12th century, still stands, east of the village near the Newport boundary.[77] The reference to the chapel in the Deed of 1158 is notable as the earliest known.

APPENDIX II

Rents of assize of the Prebends of Ketons and Coopes at Maldon

Translation

From the tenement of Southous and Seyres per annum 4*s*.
From the tenement of Kanteys per annum 3*s*.
From the tenement of John Waryn called Chalfis Croftis per annum 22*d*.
From one croft formerly of Thomas Alote now held by Thomas Palmere 15*d*.
From the tenement of Richard Cok now of John Angel 12*d*.
From one vacant site called Prestis Hawe 10*d*.
From the tenement of William le Bew per annum 10*d*.
From one vacant site of John Scharp 6*d*.
From the tenement of John Traps per annum 4*d*.
From the tenement of Joan Robynes 10*d*.
From the tenement of John Yselhorlre with the shop (*seuda*) and solar of Richard Cok 10*d*.
From the tenement of John Cobbe per annum 10*d*.
From the tenement of John Lok per annum 5*d*.
From one shop called Beemfletisshoppe next to Le Hethe per annum 4*d*.
From two stalls formerly of John Cobbe and Alexander Cok 4*d*.
From one acre of meadow called Cheycheacre at Baynard [*blank*].

MS [Latin] Westminster Abbey Muniments Deed 8119.

Undated 14th century hand.
Description 15.4 cm. maximum width, reducing to 14 cm. across the top (there is a step cut out of the top right hand corner), and 24.3 cm. down the left side.

APPENDIX III

Survey and Valuation of the Prebends of Ketons and Coopes, 1759, with Review 1770.

A Survey and Valuation of the two Prebends of Keton and Coopes in the Parish of St. Mary's in Maldon in the County of Essex held of the Dean and Chapter of the Collegiate Church of St. Peter's Westminster by Sir Henry Englefield, Bart. for 21 years from Mich. 1751. Done in March 1759 by Tho. Yeoman.

The two prebends of Keton and Coopes are no other than two farms, the one cheifly arable, the other meadow, or marsh land; the arable farm is called and known by the name of the Brickhouse Farm, the grazing farm is called the Parsonage Farm; both in the tenure and occupation of [*blank*] Pattison at the yearly rent of 198 pounds tyth free: the tenant finding all repairs (except the sea banks), the landlord allowing rough timber.

The Arable Farm as followeth:

	A	R	P		A	R	P		£	s	d
Nine Acres Close	8	1	30	)				)These closes are			
				)	15	0	22	)			
Eight Acres Do.	6	3	32	)				)now in one meadow			
Ten Acres Close					9	2	25				
Six Acre Close					5	3	28				
The Groves	5	0	4	)							
				)	12	0	12	Now one close			
Six Acres Close	7	0	8	)							
Home Field					8	0	14				
Four Acres Close					5	1	24				
Spring Pond Close					14	3	35				
Three Acres Close					5	0	4				
Ten Acres Close West					12	1	0				
Do. East					10	3	18				
				Acres	99	2	22	at 20 *s.* p. acre	99	12	6
Old Marsh					23	2	9				
Little Marsh					5	1	31				
Great Marsh					21	2	3				
Twenty Acres Close					21	1	7				
					71	3	10	at 5 *s.* p. acre	18	0	0
Small Gains					9	3	12	at 2 *s.* 6 d.	1	6	6
				Acres	181	1	4	worth p. an.	118	19	0
The Parsonage Farm											
Home Marsh					47	2	11				
Middle Marsh					24	3	30				
				Acres	72	2	1	at £1 10 *s.* p. acre	108	15	0
Hill Marsh					63	1	10	at £1 0 *s.* do.	63	5	0
Sea Marsh					57	3	32	at 15 *s.* do.	42	8	0
				Acres	193	3	3	meadow worth p.an.	214	8	0
Brickhouse Farm					181	1	4		118	19	0
Total Acres					375	0	7	The whole worth p. an.	333	7	0

The Estate is subject to very considerable repairs in the sea banks and in the fence, especially in the Parsonage Farm, which consists chiefly of oak posts and rails, and no timber upon the premises to assist or support the several repairs. There is only one small errection on the Parsonage Farm like a shepherd's hut, old and crasey, shown in the Plan near the churchyard. The Brickhouse Farm hath a very old brick house upon it, one old barn, one ditto almost new, one old stable, another new, with hovils and other offices for the conveniency of the farm.

The tenant who occupyed the two farms before the unkle of the present tenant, about fifteen years ago failed, not from the inability of the estate, but from want of money, and which is still worse, from want of judgement. Old Mr Pattison, as soon as he had a lease granted to him, improved the greatest part of the arable land by laying of 15 loads of

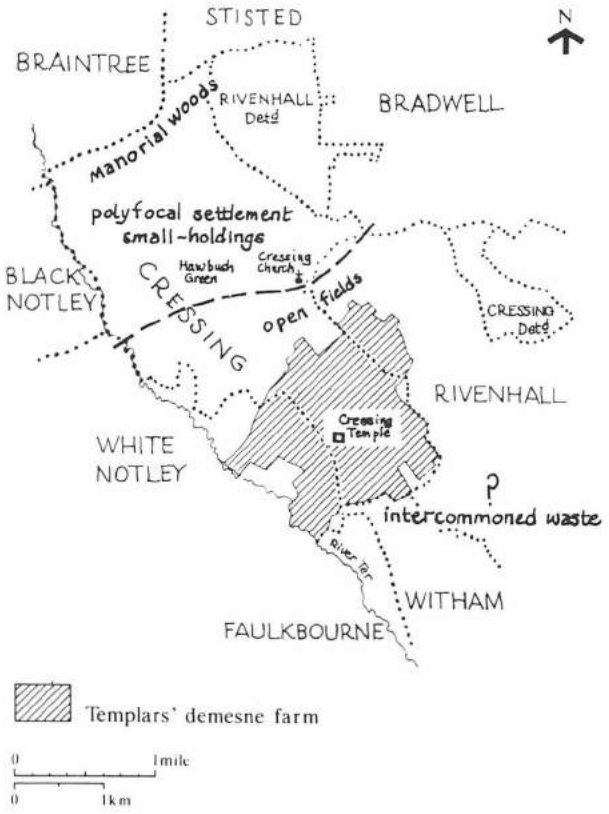


Fig. 2 Medieval Cressing.

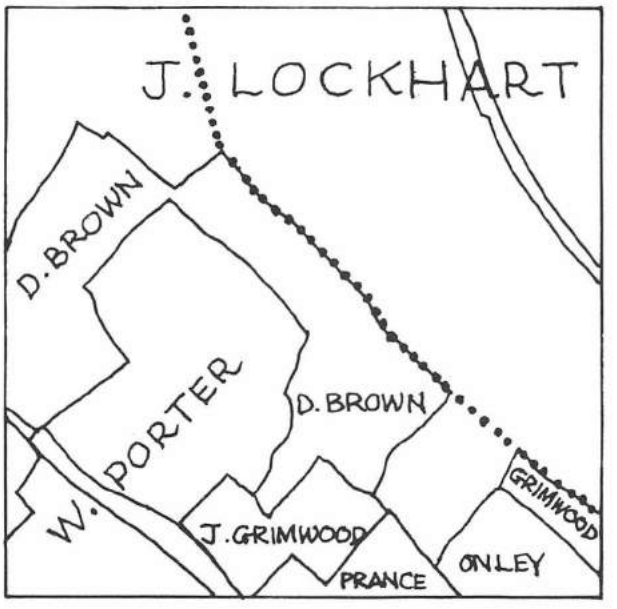


Fig. 4 Area A. Land ownership in 1842.

ing, improvement and other works required on main roads, and the planting of exotics. The verges have been banked to deter travellers, but the hedges are in good order, and it remains a pleasant country lane. The Z-pattern of the lane suggests that it defined the demesne boundary between two furlong blocks, one demesne, the other tenanted.

Formerly to the north of Pettit Way lay a large strip field divided into areas named Church Field, Combing Shots, Bennetts and Thorogoods, probably

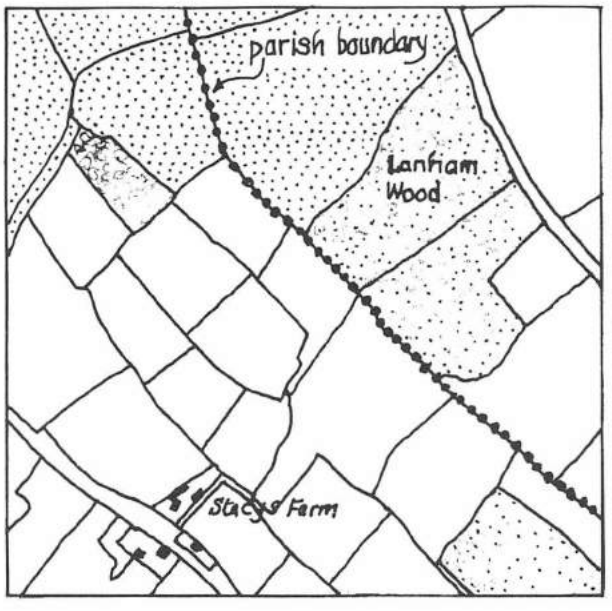


Fig. 3 Area A. Field pattern in 1842.
Tithe-free land shown stippled. Scale: Six inches to one mile

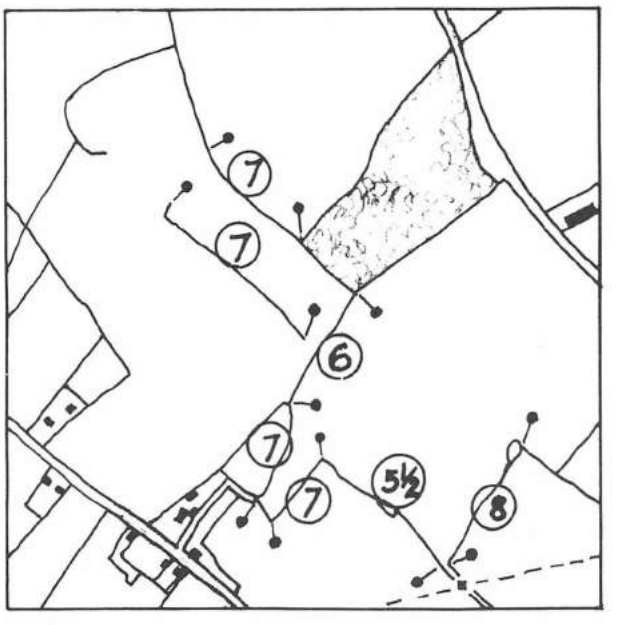


Fig. 5 Area A. Field pattern in 1996. Average species count in hedgerows shown circled.

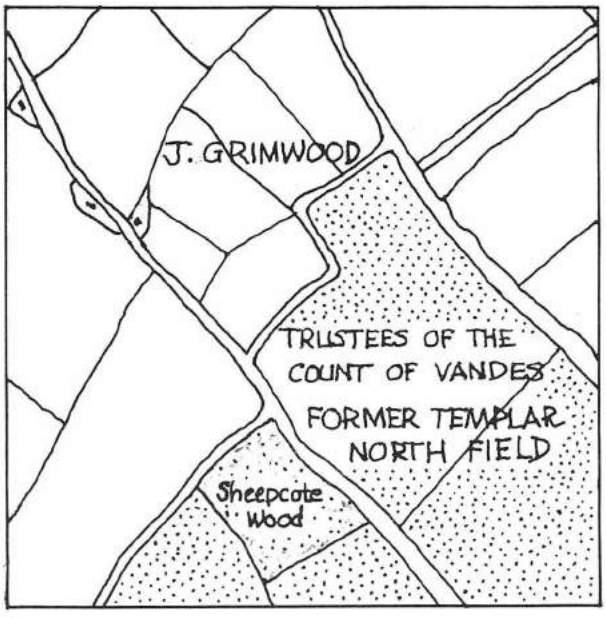


Fig. 6 Area B. Field pattern in 1842. Tithe-free land shown stippled. Scale: Six inches to one mile.

farmed on an agreed rotation, otherwise fencing for the fallow period would have presented a problem. Probably long before the Tithe Map, it had been divided up into small hedged closes. To the south lay the demesne North Field comprising 76 acres (30 hectares), subsequently divided into three, and in recent years opened up again to its earlier extent. In contrast to the northern half of the parish, the landscape of the south has remained stable, the fields returning in their shapes and sizes to much as they were in the thirteenth century.

The 'core' species here were hawthorn, blackthorn, field maple, hazel, dogrose and dogwood, which occurred abundantly. Oak, ash, elm and sallow were also present. No other species were found.

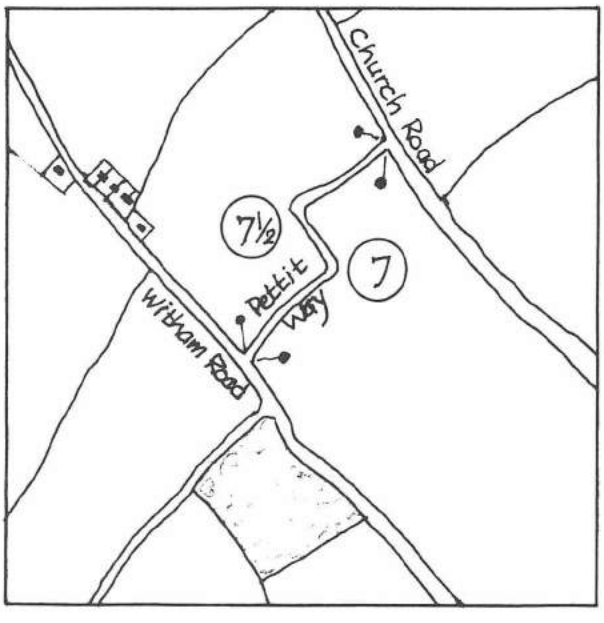


Fig. 7 Area B. Field pattern in 1996. Average species counts in hedgerows shown circled.

The Great Warren

South of the Temple farmstead across the Witham road lay the Great Warren where the Templars bred and harvested their coneys (Hunter 1993b, fig. 10). It seems to have been still in use in 1656 when a survey described it as the impaled ground (Ryan 1993, 22); rabbit skins were still a valuable product. The Templar demesne in this area had extended into the parish of White Notley. The Warren was bounded to the north by Bannerly, another large Templar field which was later sub-divided. Along this boundary runs the public footpath linking the farm to the riverside and White Notley village. The first edition OS 6-inch map suggests a straightened boundary, perhaps dating from the time when it was bisected by the construction of the Braintree to Witham branch line.

The hedge proved to be of little botanic diversity and consisted largely of elm, much of it dead. Elm colonization, in which the powerful suckers replace other plants, can be a problem in hedgerow dating, but in this case the reason may have been planting of elm when the warren went out of use, probably in the 18th century. Dating by species was clearly inappropriate here although this was a medieval boundary, later straightened.

It is as well that this boundary was surveyed as subsequently it has been totally erased, the hedge and lynchet bulldozed and the ditch filled. Tyre marks denote the public footpath. The concept of stewardship in the countryside had clearly not reached this particular farmer.

Conclusions

The average of seven species in Area A suggests that this landscape crystallised in the late thirteenth century and subsequently changed little until this century. The slightly higher average of the Pettit Way hedgerows suggests that this track was formed at much the same time as the construction of the Wheat Barn (1257-80), which, together with the earlier Barley Barn, gave ample storage for the sheaves of the corn crop of the Templars' demesne (Hunter 1993b, 34). Early in the latter half of the thirteenth century, the demesne had reached its limits; the thirteenth century had been the great period of demesne expansion and direct farming by the manor. In the fourteenth century, well before

the Black Death, the trend reversed and it became general practice to lease out demesne land (Miller and Hatcher 1978, 242-5).

Acknowledgements

I am grateful to Jonathan Dixon-Smith of Lanham Farm for permission to freely walk his field boundaries and to David Andrews and Sarah Green for their help in the survey.

Author: John Hunter, Market Cross, 25 Town Street, Thaxted.

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New House Farm and Hungry Hall, Cressing. The disintegration of the Cressing Temple estate or the Great Rebuilding?

by P.M. Ryan, D.F. Stenning, I. Tyers and D.D. Andrews

Introduction

It is a natural development that research on the site of Cressing Temple and its buildings should be placed within the wider context of Cressing parish. To date, attempts to take this wider view have been confined to the landscape studies undertaken by John Hunter. In this article, however, the approach combining systematic building analysis linked with tree-ring dating which has been successfully used at Cressing Temple is extended to two listed buildings within the parish (Fig. 1). These have been selected not simply because they are listed but also because they originally belonged to the Cressing Temple estate and *prima facie* seemed to have been constructed at about the same time as the Smyth Nevill family were carrying out major works remodelling the Great House. Dendrochronology was essential to this investigation as only precise dates could link the buildings meaningfully to the management of the estate by the Smyth Nevills.

New House Farm

Since 1987, this property, which stands about half a mile north of Cressing Temple, has been known as Cresleys Farm. In the 18th century it was owned by John Wright Esq. and called New House according to an estate map dated 1727. It was marked as such on 19th and 20th-century OS maps (ERO T/M 504/1). However, a hand-written note, 'Cresleys or Saches,' on an abstract of title connected with the sale of New House in 1920 suggests it was the farm named Cresleys or Saches which was purchased by Sir Henry Blunt of Tittenhanger in the 1660s when the Nevills' Cressing Temple estate was broken up (ERO A6815, D/DAc 96 and 101; LRO D/G5 596). Evidence involving field names and woodlands associated with New House Farm also indicates that it was the farm which was leased to Goodman Sache in the mid 17th century. The property, which was tithe-free when in the owner's hands, was originally part of the demesne land of the Knights Templar (ERO D/CT 109). The manor of Cressing Temple was leased to Sir John Smyth just prior to the Dissolution of the Monasteries and in 1542 'the lands and fields of Cresseleys' were included in the marriage settlement of Sir John's son, Thomas, and Mary Nevill (BL Add. Ch. 41494).

The house is aligned approximately east-west, parallel to the road to Cressing village and Braintree. It is of three unequal bays and a chimney bay (Fig. 2). It is assumed it was a lobby-entry house, though no evidence was found for the position of the entrance or the stair. To the west of the stack was a ground-floor hall, and to the east a slightly smaller parlour. At the west end was an unheated service room. It proved impossible to find the original entrances to this room at the ground or first floors.

The house is built of good quality timber, though elm was used for some of the bridging and binding joists. These joists have lamb's tongue chamfer stops, some of them having bars. The posts are halved or quartered timbers, and they have jowls. The common joists are sawn, several clearly being obtained from one tree, and narrow section, 60-80mm wide. They are laid at 500-530mm centres. They have soffit tenons with diminished haunches. Face-halved scarf joints occur in the top plates. The studs are placed at 600mm centres and are pegged. There is no wattling groove in the soffit of the plates and girts. Internal downbracing occurs at the corners at the first floor, and also in the partition separating off the service end at this level. The braces are slightly curved, though one at the north-west corner is straight. An existing window at the first floor in the south-west corner of the room over the hall may be original. There was also a window in the north wall at this level.

The roof is of clasped purlin construction, the principals being of heavier construction than the common rafters. They measure 130-160mm in width by 120mm in depth, as opposed to 100-110 mm by 60-70mm. The principals increase in thickness above the purlin, presumably with the intention of trapping the latter against the collar, though in fact the purlin is usually not in contact with the rafter where its thickness changes. Straight windbraces occur at each end of the roof. They are housed in the purlins and nailed to the

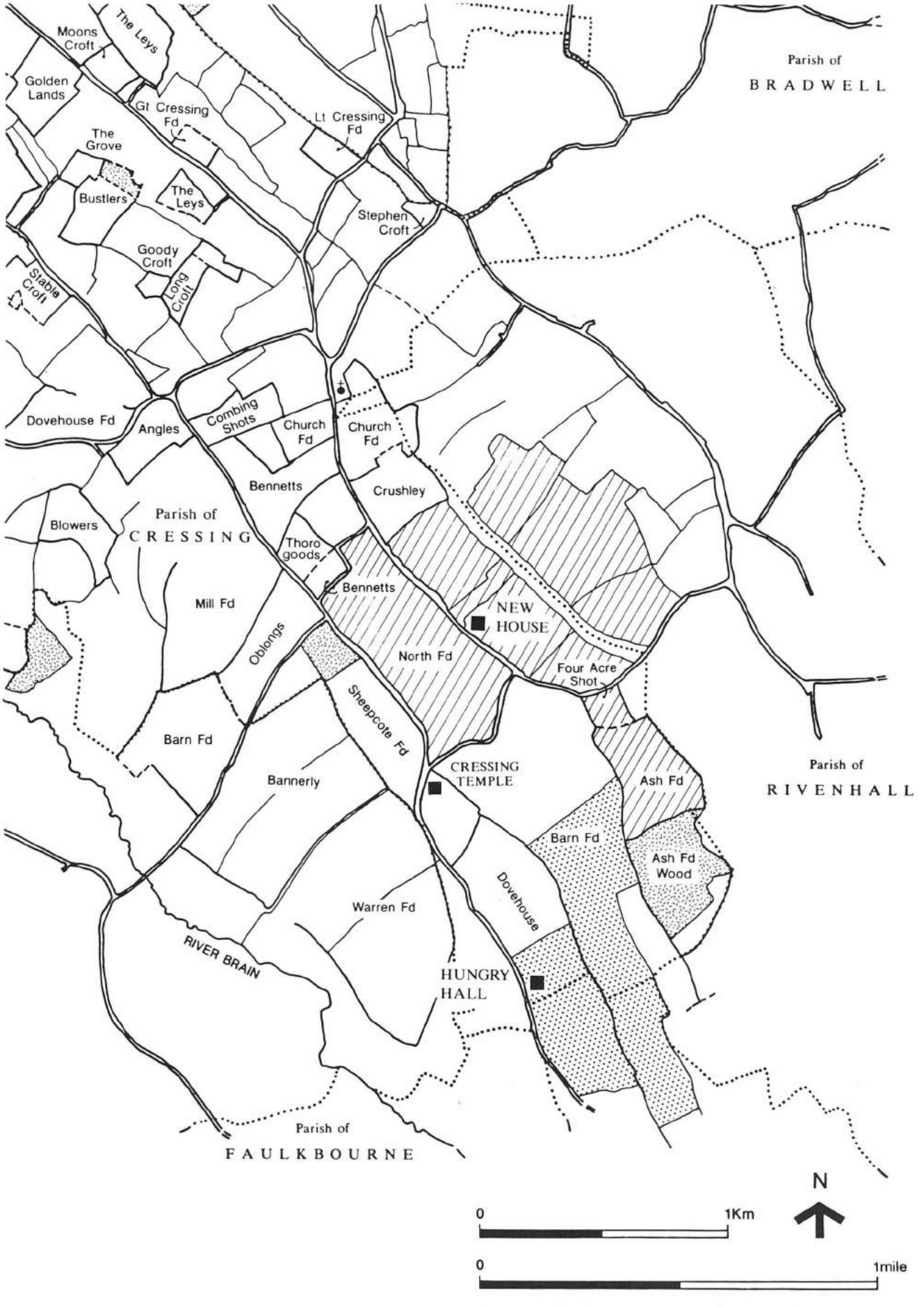


Fig. 1 Cressing parish, based on the Tithe Map of *c.* 1840, showing the extent at that time of New House and Hungry Hall farms.

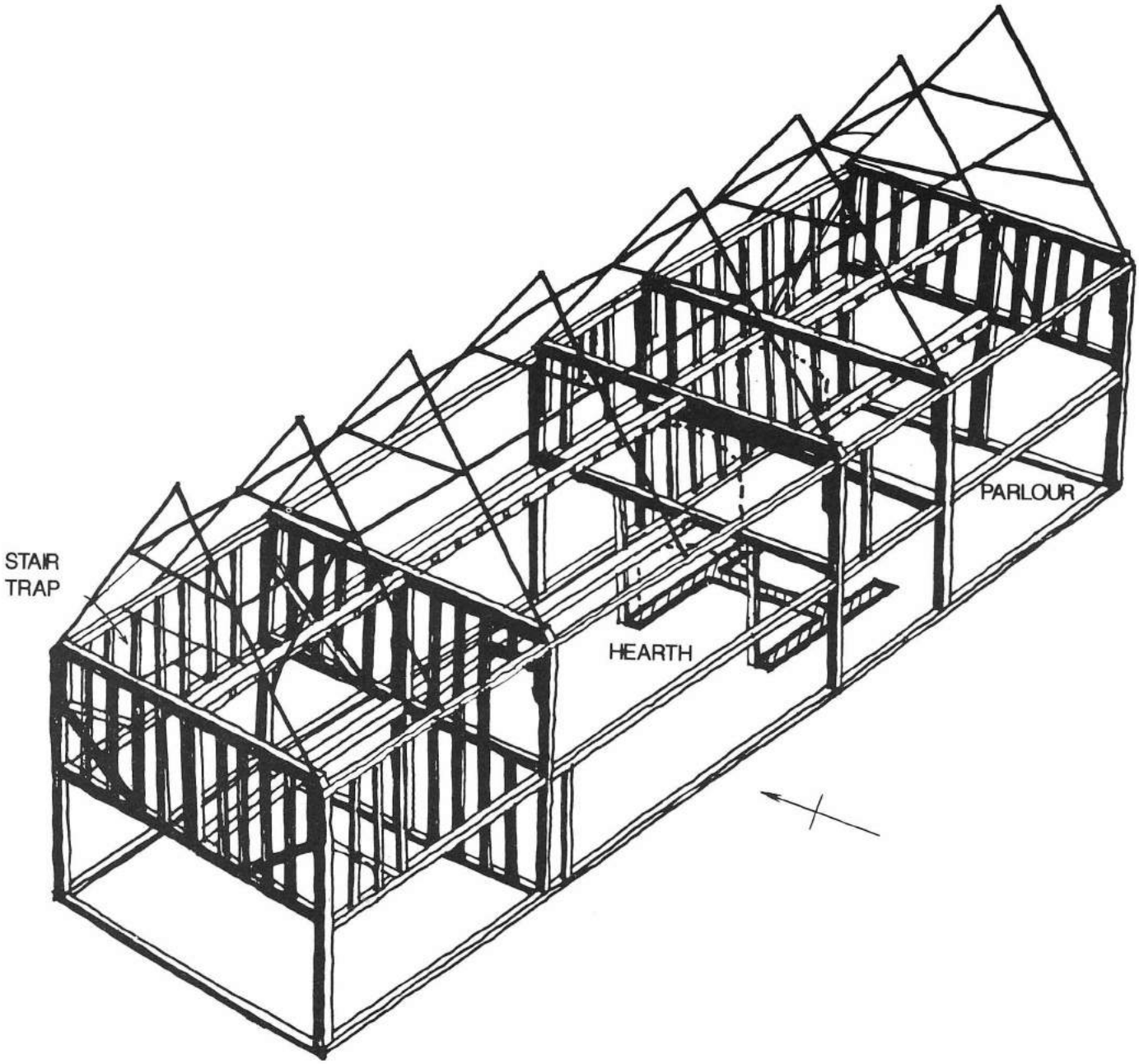


Fig. 2 Cressing, New House Farm, frame drawing.

principals. A partially complete set of carpenter's marks can be traced through the roof; as is so often the case with roofs, they are not in sequence.

The roof void was built as a loft, though the dormer windows are modern. Its boarded floor is probably original, the wide boards having rebated edges. Access was obtained from the first floor above the service room where in the north-west corner an interruption in the ceiling joists indicates the existence of a stair. The loft was divided in two by a stud partition abutting the west side of the chimneystack. Small windows originally existed in the gable ends.

The chimneystack is substantial, with four hearths and octagonal stacks. The wide flat arches over the hearths have chamfered surrounds, the chamfer being stopped well above floor level. The bricks measure 240 x 120 x 55-60mm, and are irregular with creased faces.

On the north side of the house, there is a small outbuilding which was originally detached but which had been joined to it by the time of the Tithe Map (*c.* 1842). Known as the Granary, it is timber-framed over a brick ground floor. The lower part of the brickwork consists of Tudor brick. At the ground floor, there are large joists, one with a fancy chamfer stop. The roof is of clasped purlin type and includes old-looking rafters but is made with a ridge piece which implies a late 18th

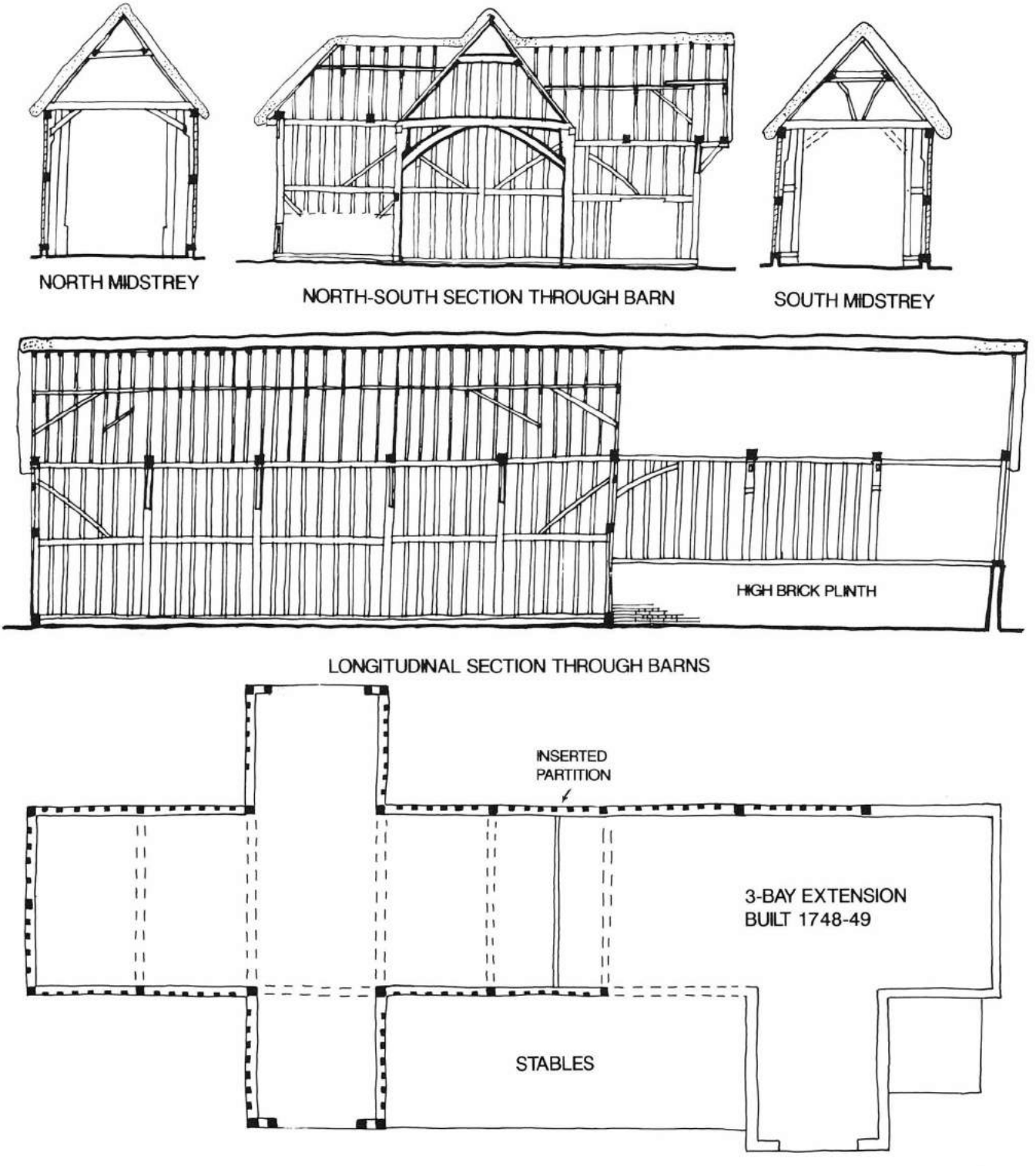


Fig. 3 Cressing, New House Farm, the 17th-century barn.

or 19th-century date. Little of the original fabric of this structure is visible, and it is uncertain whether these elements indicate it to be of approximately the same age as the house or whether they are simply reused from elsewhere.

Just to the rear and one side of the house there is a well. It has not been examined. The large pond to the east of the house and parallel to the road does not look like a moat, but is large if in origin it was a quarry pit.

The barn

This stands to the north-west of the house, with which it is clearly a contemporary or approximately contemporary construction. Originally it was of five bays with

a central midstrey on the south side. A corresponding midstrey was added on the north side, and the barn was later extended by three bays with a second symmetrical midstrey on its south side. The space between the two porches was finally infilled with three stables (Fig. 3). A third gable in the roof over the stables, and the existing thatched roof, make the barn an interesting and picturesque complex.

Tree-ring dating proved unsuccessful for the barn (see below), and it is assumed to be of the same date as the house since its carpentry is similar. There is no reused timber apart from a tie-beam with so many mortices in it that it has cracked. The studs measure 120 x 80mm and are set at centres of about 500mm. They are pegged. They had wattle and daub infill, but there is no wattling groove in the soffit of the plates and rails. Its walls are about 4.5m high, with a mid rail. At the corners, there are slightly cranked down braces from the top plate to the mid rail. These are primary braces, interrupting the studs. Face-halved scarf joints occur in the top plate. The arcade posts have jowls, and slightly curving braces originally connected them to the tie-beams, in most cases now replaced by hanging knees. The roof is of side-purlin construction. There are no principals: the collars occur at the scarf joints between the purlins and half way along the timbers of which the purlins are made. At the ends of the barn there is a pair of wind braces in each roof pitch. These are housed into the back of the purlins and nailed to the rafters. That the studs in the east wall of the midstrey do not correspond above and below the mid rail suggests that there may have been a door in this position.

Empty mortices in the top plate and posts make it clear that the northern midstrey is an addition. Its carpentry differs only in that the timber is of slighter scantling, there are no nicks in the sides of the studs for the wattle and daub infill, and not all the studs are pegged. The absence of evidence for wattle and daub indicates that this midstrey was weatherboarded. A door on its west side may be original.

The three-bay extension to the east includes reused timber and has primary bracing. The brickwork of the plinth which is about 1.5m high looks 18th to early 19th-century in date. The three stables added on the south side of the barn are not shown on the 1st edition OS map, and probably date from the early 20th century.

Tree-ring dating

This suggests a felling date of 1633/4 for the timbers of the farmhouse. Six samples were obtained, all from storey posts. Four of these were found to match. The four dated sequences end between 1627 and 1633. Many of these cores are fragmented in the sapwood. However, the latest ring present was derived from an unfragmented core from a timber that appeared to be complete to the original bark-edge. The results therefore indicate that the felling of these timbers occurred between 1633 and early 1634. The tool marks and subsequent warping of the timbers indicate the structure was built using green timber and thus implies construction either within or shortly after this period.

An attempt to tree-ring date the original construction of the barn was unsuccessful. Six samples were taken from the five bays and the midstrey of the original build. None of these samples were found to match. This was somewhat disappointing since at an initial assessment these timbers had looked more promising than those in the farmhouse. However, after coring, it became apparent that the trees used for the storey posts at least, are characterised by bands of extremely slow growth which has probably reduced the chances of dating this material and perhaps indicates the timbers were derived from hedgerow trees. A further four samples were obtained from the northern midstrey and the eastern extension. Two of these were found to match and the dating for these indicates that both these modifications are contemporary and date from 1748 or early 1749.

Cressing, Hungry Hall

Introduction

Hungry Hall stands on the B1018 a little over two miles north-west of Witham, and just to the south-east of Cressing Temple. The farm that once belonged to it originated as part of the medieval demesne or home farm of Cressing Temple. The buildings are by no means as old as that. The house was built in the 16th and 17th centuries, with later additions. The existing farm buildings are modern.

Hungry Hall appears to have originated with the early 17th-century reorganisation of the Cressing Temple estate, but was not sold away from the main estate until the early 19th century. It was named New Farm in 1656 and was described as 'with a new good built house, barnes, stables and other buildings newe built' (ERO D/DAc [96] and 101). In 1662 it was New Farm or Church Field Farm and included 'the higher and furthest parts of the Old Warren, or Great Church Field, and Long Church Field which together contain 60a 1r 20p.' The New Warren, which had been incorporated in Cressing Temple farm, lay on the opposite side of the road to the site of Cressing Temple itself (LRO DG5 607). A later 17th-century particular described the property as including Church Field, 9a 1r 37p; Church Field Head, 14a 0r 27p; and the Warrenhouse Ground, 31 a 3r 4p (ERO D/DU 191/31). The farm was sold to Herman Olmius with the rest of the Cressing Temple estate in the early years of the 18th century, but by 1725 it had become known as Hungry Hall Farm (ERO D/DU 191/31). In 1808, the Rev. Thomas Western, a member of the Western family of Rivenhall Place, purchased Hungry Hall from

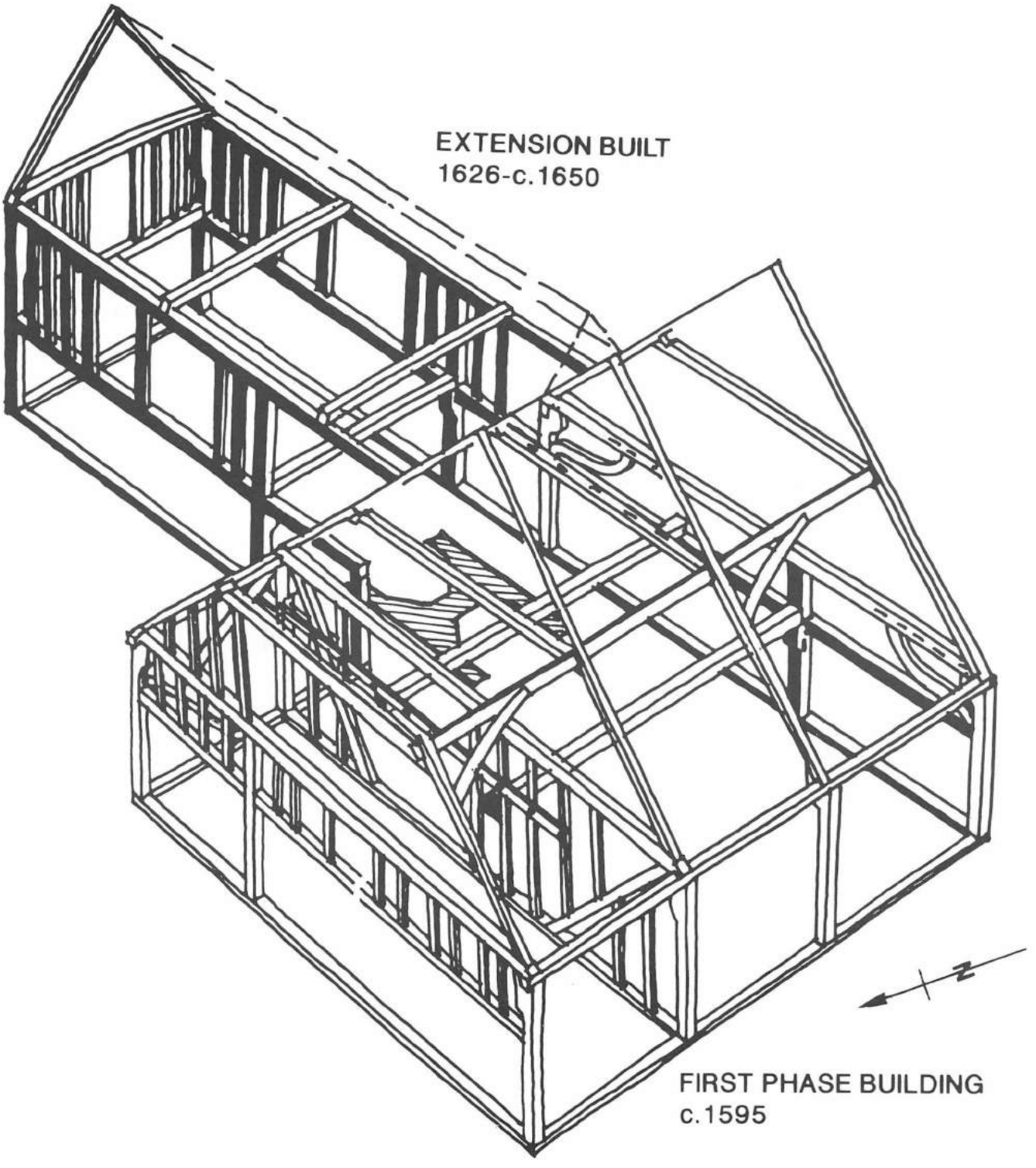


Fig. 4 Cressing, Hungry Hall, frame drawing of the house showing the two main building phases.

Lady Waltham who had inherited the Olmius properties (ERO Q/RPI 1081 and 1082).

The house faces on to the road, and is effectively aligned north-south. There are two parts to it: an older one parallel to the road, and a later east-west range built on to the back of it. When this was done, a floor was inserted in the earlier building, a brick chimney was built, and the building assumed the aspect of a lobby-entry house. This much is evident: the relatively limited access and the small amount of the frame exposed means that much of the detail of how it has evolved is unclear.

The first phase building

The earlier building was not a house. It is exceptional-

ly wide (23 feet 5 inches, 7.14m), was of a single floor with an attic, and is today of three unequal bays (Fig. 4). It is built of substantial timbers, impressive but somewhat roughly finished and unadorned apart from the unusual bracing (see below). The roof is of side purlin construction with wind braces, the braces not occurring on both sides of each truss. The rafters are quarter trees. The north end of the roof is half hipped, but this arrangement does not look entirely convincing. The long side walls and the internal closed truss lack mid rails, and are only about 10 feet (3m) high. Posts are jowled. Braces are set on the inside face of the studs. A few scribed carpenters' marks are visible.

Originally the building was at least one bay longer to the south. At this end there is a tie-beam with remarkable ogee braces which was originally an open truss. Mortices in the face and edge of the tie-beam indicate that there was a floor and stud partition for an attic, the absence of pegs indicating that this was an afterthought. Mortices for an attic partition also occur in the collar of the next truss to the south. This truss lacks a tie-beam. The only visible principal rafter (that on the west) has a face-halved scarf near its foot, and below the joint a mortice. Within the scarf joint was formed a small mortice. A reinforcing timber applied to the top plate at this point does not help with understanding the significance of these joints. That there was an attic with joists running longitudinally implies the

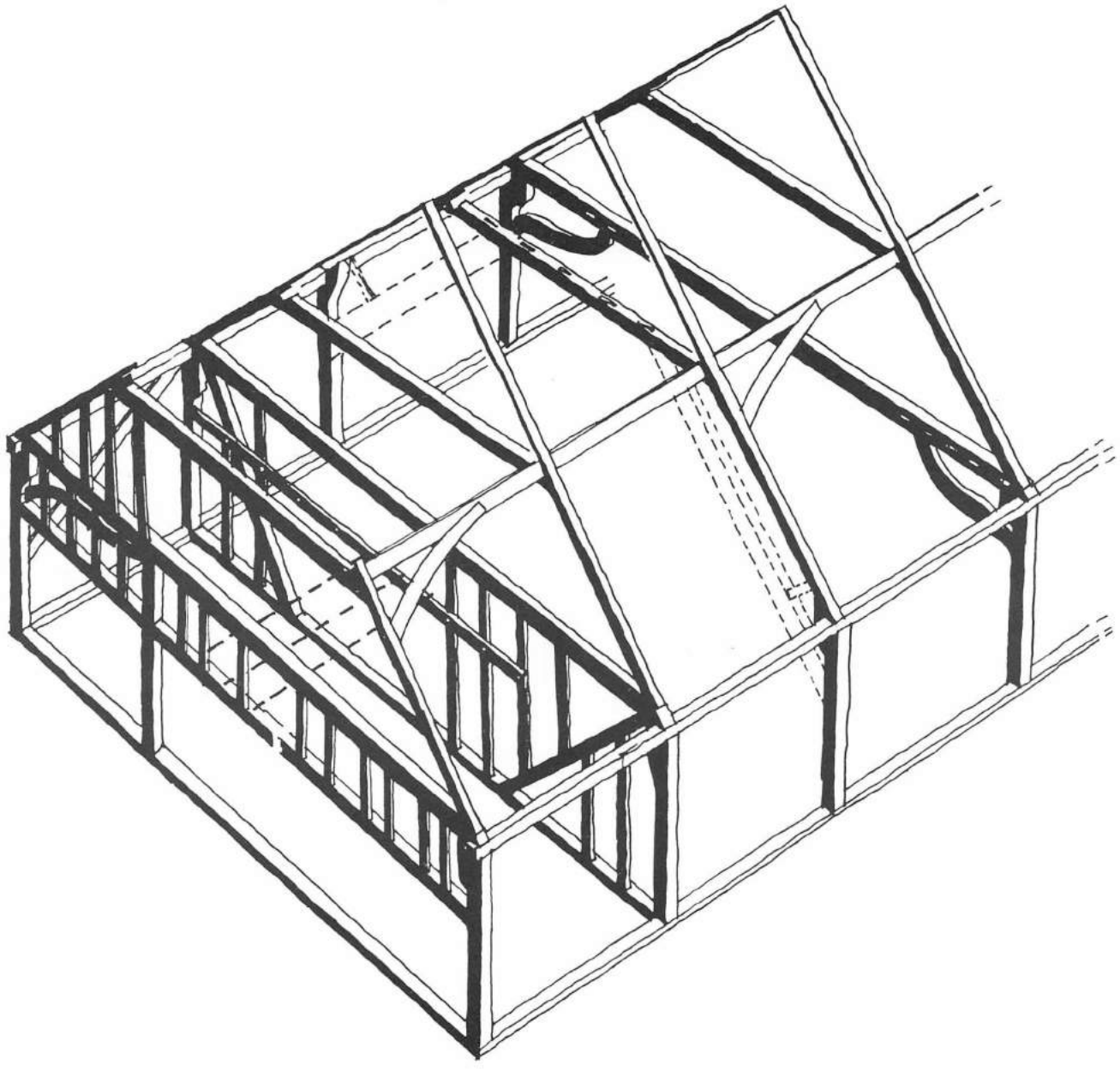


Fig. 5 Cressing, Hungry Hall, frame drawing of the late 16th-century specialised agricultural building which was incorporated into the 17th-century house.

existence of another tie-beam, and possibly a short length of timber was scarfed on to lengthen the bottom of the rafter when the tie-beam was removed. A mortice in the post for a brace also supports the idea that there was a tie-beam, though it is set at a lower level than the ogee braces in the southernmost truss.

In the side walls there are compression braces. Large tension braces are the principal feature evident in the closed truss at the north end of the ground floor room. The north end wall of the building has an eccentric storey post offset to the east, studs about 1 foot (300mm) apart, mid rails and ogee bracing below the top plate. This wall and the closed truss are only 7 foot 5 inches (2.26m) apart. Today there is a floor in it, but this was probably an insertion: the joists are supported on a rail dowelled to the closed truss, and are set at a level a little above the rails in the north end wall.

The 17th-century house

The building was extended by inserting a floor lit by dormer windows in the south roof pitch, and adding a higher east-west range to the back of it, the southernmost bay(s) being dismantled. A brick chimney with hearths in each room and at each storey was built just inside the line of the back wall of the building, to the south of the ridge of the new wing to allow space for a stair on its north side, accessed through the northernmost bay of the old building which by this time, as today, must have functioned as a passage. The two ground-floor rooms are of equal length (about 20 feet or 6.1m), but the rear one is wider because of the stair and passage on the north side of the old building.

The binding and bridging joists (?some of which are elm) have lamb's tongue chamfers. The common joists are sawn and narrow section (3-3½ inches, 75-90mm) set about 15 inches (375mm) apart, and jointed with soffit tenons with diminished haunches. The roof is of clasped purlin construction with wind braces. There was probably an attic but this could not be confirmed. Windows about 7 feet 6 inches (2.28m) wide, flanked by double pegged studs, can be detected in the sides of the rear wing. The chimney provided a hearth for each of the four rooms, there being four octagonal stacks above an elegant cornice with a quarter-round moulding. The bricks measure 220 x 110 x 50mm; they are relatively precisely made, but have very creased faces and common stone inclusions. The hearths are splayed or canted. A bread oven exists at the ground floor, and at the upper floor there are recesses in the sides of the stack.

Later alterations

A plaster panel in the attic with the inscription 'John Searl 1752', and a ridge tile with a similar inscription, probably attest a significant refurbishment at that date. The small brick cellar beneath the west half of the rear wing, the chevron-patterned pargetting on the north side of the rear wing (originally external but now internal with the modern prolonging of the passage to the back of the house), and the extension to the north of the early building, are all works attributable to the 18th century. Modern improvements include the raising in height of this extension, the removal to the east of a granary, originally on staddle stones, which stood adjacent to it, and the extensive insertion of Crittall windows.

Tree-ring dating

Thirteen timbers were sampled from this structure, nine from the first phase building and four from the 17th-century phase. Four timbers from the first phase building, and one from the extension, were successfully dated. Two of the first-phase timbers include some sapwood, with one very close to the original bark-edge. This sample indicates felling occurred in or shortly after AD1595. The single dated sample from the later phase also includes some sapwood but the bark-edge and some of the outermost rings were lost. The result suggests that the felling of the timbers used in this phase occurred after AD1626 and probably before *c.* AD1650.

Discussion

At Hungry Hall it has been a surprise to discover that at the core of the house there is an unusual building which at present seems unique. It was exceptionally wide, with low eaves and of uncertain length. At its north end is a narrow bay just over 7 feet (2.13) wide, and it had a loft, probably from the first. Provisionally it seems best to refer to it as a specialised agricultural building. Identifying its function is more problematic than assigning it a label. The only agricultural buildings in Essex which have survived in any numbers from the Middle Ages are barns. The animal sheds which necessarily must have existed, and which are attested in documents, have disappeared. The size of the building makes it eligible to be a sheepcote (cf. Dyer 1996) but there is no place-name evidence to support such a theory; the recorded sheepcotes at Cressing are all distant.

Instead, the sources do indicate that it was situated close to the Old Warren. Rabbits were introduced to England soon after the Norman Conquest (Sheail 1971, 81). Valued for their meat and fur, they were kept in coneygarths or warrens. In the 1570s, William Harrison, the rector of Radwinter, observed that the number of warrens was increasing all the time. According to Reyce, the early 17th-century historian of Suffolk, an estate was not complete unless it had a rabbit warren. Rabbits prefer dry sloping sites for their burrows. Both the Old and New Warrens at Cressing slope towards the south and south-west. The later name for the farm (i.e. Hungry Hall) suggests that the soil was poor and probably dry. To the south of the Braintree-Witham road, on the slopes leading down to

the river Brain, there is only a thin capping of soil above gravel deposits which have in the past been earmarked for extraction. In many cases a lodge, situated on the highest part of the site overlooking the warren, provided living accommodation for the warrener and storage space in which equipment was kept and rabbit skins dried (Sheail 1971, 52-3). The surviving warrener's cottage at Hatfield Forest (Rackham 1989, 181) is a small brick house quite unlike the Hungry Hall building, but the warren there was much smaller than that at Cressing. Whatever the use to which the Hungry Hall first-phase building was put, it proved short-lived: the tree-ring dates show that within about 50 years it had been converted to a house.

Conclusions

The tree-ring dates indicate that the buildings considered here were erected by the Smyth Nevill family on the Cressing Temple estate before they sold it in 1657. The early phase of Hungry Hall appears to be a unique type of building which, for want of precise identification, has been termed a specialised agricultural building. The most promising clue as to the use of the building is its proximity to the Old Warren, and conceivably it was used by the warrener to store equipment and skins. It would have represented a significant investment by someone with a serious interest in the exploitation of rabbits on the estate. The date of 1595 or soon after obtained for it indicates that it was erected for Francis Harvey, second husband of Mary Nevill, a man prominent in local affairs and resident at Cressing from his marriage soon after 1563 until his death in 1604. His rabbits were numerous enough to be of interest to the local poachers. In a deposition made in 1578 against a certain Tunbridge, Harvey alleged 'He hath for more than 20 years continually abused me and others, and yet still doth, in stealing my conies, robbing my fish ponds and taking my partridges and pheasants...my conies are stolen so that I have not any to serve my house...' The building only retained its original use for about 40 years, being converted to a house probably in the 1630s.

New House Farm has been dated to 1633. Hungry Hall is probably of the 1630s. In 1630, William Smyth died without issue. Cressing Temple had been settled on him by his elder brothers in 1612. He built the Granary which is dated to 1623, and recent excavation and research suggests that he extensively remodelled the Great House. William was succeeded at Cressing by his nephew Henry, who six years later inherited the family's Leicestershire property, Nevill Holt, on the death of his father. It is Henry who must have been responsible for the buildings at New House Farm and Hungry Hall. The latter seem to represent a process of parcelling up the estate into farms suitable for leasing, and thus to signal a change in policy regarding the management of the estate. Whether this was thought to be better practice, or whether it reflects an increasing marginalisation of Cressing Temple in respect of the family's Leicestershire property, is unclear. (Henry Nevill's eventual sale of Cressing in 1657 is thought to be a consequence not simply of such a shift of interest, but instead of having to pay a heavy fine for backing the wrong side in the Civil War). At Hungry Hall, the rather neat compact farm located on the east side of the Braintree to Witham road suggests that the holding was in part carved out of a pre-existing field pattern. In the case of New House, this is not so clear since, as has been seen, a holding of some sort that went by the name of 'Cresseleys' had existed from at least the time of a marriage settlement of 1542. The newly built farmhouse with its barns does however clearly point to some degree of reorganisation.

These farmhouses form part of the phenomenon often referred to as the Great Rebuilding. The advantage of tree-ring dates that they provide a close chronological framework for this process, and make it possible to relate it to historical events and the circumstances surrounding it. At Cressing, we are not dealing with the rebuilding of decayed or outmoded properties, but new buildings erected to satisfy the needs of changing estate management.

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The arrangement of monuments and seating at St. Andrew's church, Earl's Colne, during the 17th and early 18th centuries

by Ann Dolina MacKinnon

"Oh Lord my desire is to serve thee in Colne if it Please thee, I seeke not great things, only bless me with thy grace and mine, and make mee an instrument to doe good to the soules of others" (Josselin 1976, 14). Thus reflected Ralph Josselin, newly appointed vicar of St. Andrew's church, Earls Colne, on his arrival at that town to take up his incumbency in the spring of 1640/41. He was 24 years old. Josselin was to remain the incumbent at St. Andrew's until his death on 30 August, 1683 at the age of 67, when the parish register noted that he was "minister of this parish for near 44 years."[1] Yet what were the fabric and fittings of the church that confronted Josselin on his arrival in 1640/41, and how can we rediscover its form and functions from the surviving church which is a product of an extensive and thorough Victorian restoration between 1861-4? The answers lie in the building itself, which stands as a palimpsest symbolising past and present, supplemented with information from contemporary 17th-century evidence, as well as documentation, such as ecclesiastical records and antiquarian descriptions, from the 18th and 19th centuries.

This article will focus on the reconstruction of three elements of the 17th and early 18th-century sacral space: the construction; the customary seating layout of the church prior to 1864; and the extent and location of the 39 funeral monuments and achievements known to have existed prior to the 19th-century restorations of 1861-4.

Restoration of 1864

The Builder, an eminent Victorian weekly publication, announced to its readers on 16 July 1864 (page 534) that:

> The parish church of Earls Colne has been re-opened, after having been closed for fifteen or sixteen months for repairs, which have been executed under the superintendence of Mr Hayward, of Colchester, architect, at a cost of upwards of £3,000. The contract for the works was taken by village tradesmen – Messrs. Rogers, Clark and Cawston, and Mr. Bremer, of Colchester.[2] The improvements include a new north aisle, corresponding with the southern portion of the church: the chancel renewed: the roof of the building laid open stained, and varnished; and stained open benches substituted for the old pews.

The parish of Earls Colne spent nearly £5000 between 1835 and 1865 on church building works in response to the growing population, which rose from 1319 in 1835 to 1541 in 1861. In addition, by increasing the seating capacity, the established church hoped it might be able to entice the increasing number of nonconformists within the village back to the Church of England.[3] Earls Colne was one of many churches to embark upon building projects during the 19th century, with the parish making three separate applications to the Incorporated Church Building Society (hereafter ICBS) for funds between 1835 and 1864. The 19th century saw extensive restorations of parish churches throughout England, and the major influences of the Oxford Movement, and the Cambridge Camden Society, later known as the Ecclesiological Society, who from 1842 onwards published their views on architecture in their magazine *The Ecclesiologist*, prescribed the form these restorations were to take. The parishioners of Earls Colne adopted these prescribed guidelines when they applied to the ICBS for a grant towards extensive works estimated, initially, at a cost of £2750.[4] The actual cost of the works appeared in The British Sessional Papers for the House of Commons in 1875 and totalled £3718.[5] The result of the works can be seen in the plan of St. Andrew's church drawn by Henry Hayward the architect, which clearly shows the shift in the focus of worship, by the mid to late 19th century, away from the pulpit towards the altar (Fig. 1).[6] It was during this period of change that almost all traces of the earlier order of funeral monuments erected between 1490 and 1750, and the customary arrangement and allocation of pews, were either completely removed or relocated in the new church layout established by 1864.

Evolution of the church

The earliest clear, surviving pictorial account of the

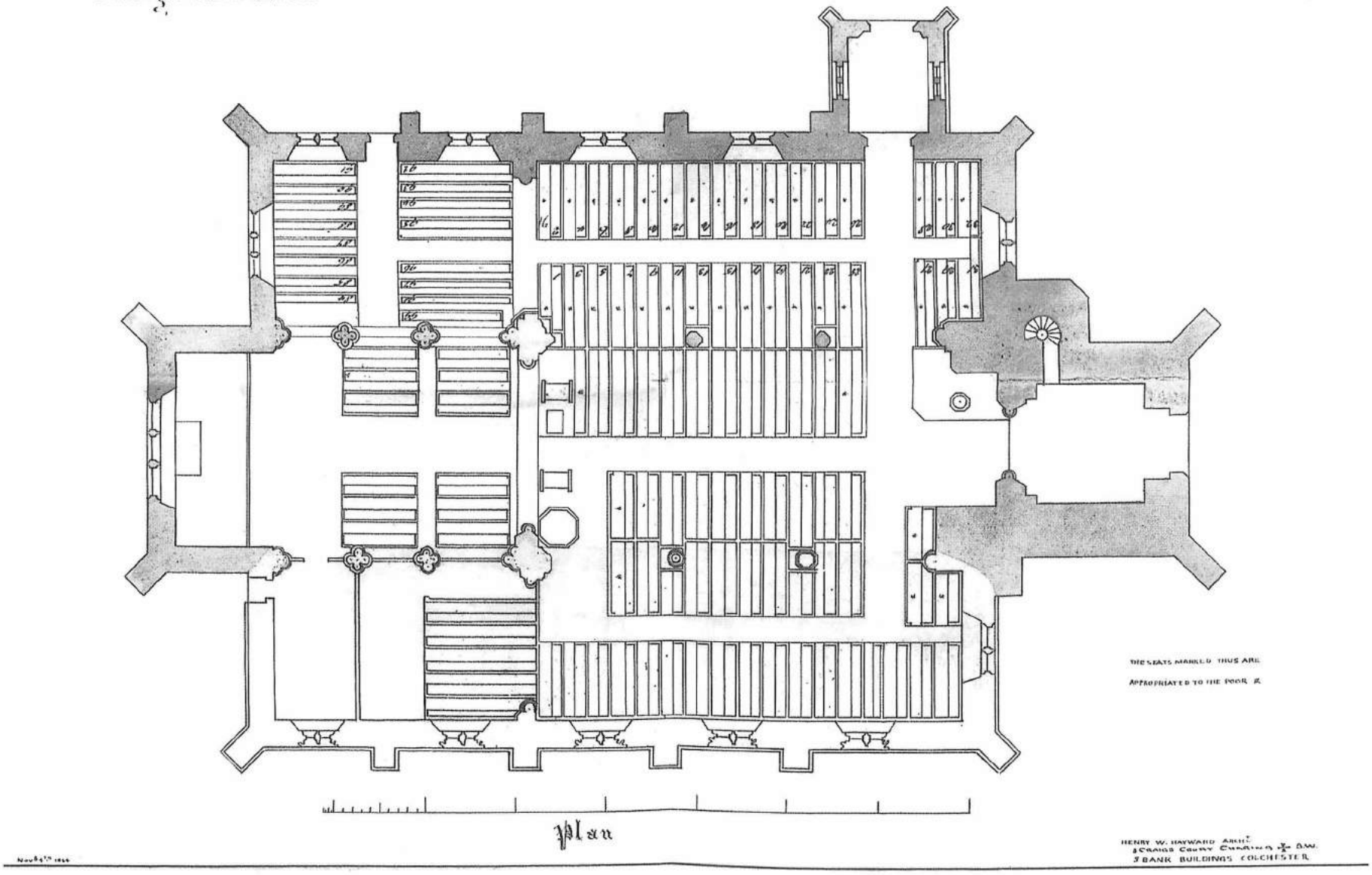


Fig. 1 1864 plan of the rebuilding and re-pewing by Henry W. Hayward. Reproduced by permission of Lambeth Palace Library from ICBS File No. 6048. North to the bottom.

church dates from 1653, 12 years after Josselin's arrival at Earls Colne. Israel Amyce had previously shown the church on his 1598 map of the village, but the map is very worn where the church is depicted and it is almost impossible to determine any details beyond the tower and the body of the church which had some windows and a door.[7] Some time in 1653, Daniel King, possibly under the direction of Sir Thomas Fairfax, came to the village with the intention of recording the surviving monuments of the de Vere family, whose monuments were to be found in the remains of St. Mary's church at the priory, and at St. Andrew's parish church.[8] In addition to drawings of the monuments of the de Veres, King also made a sketch of St. Andrew's church, and it is from this depiction that we can see the church and churchyard contemporaneous with Josselin's incumbency.[9] King's sketch (Fig. 2) shows the church comprising a tower, a nave, a chancel, and a south aisle with a porch. On the top of the tower there was a corona, a sanctus bell and a weather vane.[10]

Although King's drawing lacks some details, his depiction is consistent with 18th-century accounts of the church made by the two antiquarians, the Reverend William Holman, who visited the church in December 1722/3, and by the Reverend William Cole, who visited Earls Colne in February 1745/6.[11] These accounts are invaluable as no churchwardens' accounts survive for the 17th century, and the only references to church fittings are those items, either missing or in need of repair, listed in the Visitations records.[12] The Bishop of London Consistory Court Visitation of 1637 detailed the adherence, by the parish, to the Laudian reform of the railing in of the communion table, with the churchwardens certifying that "it was decently done."[13] The Visitations between 1684 and 1707 listed a number of church fittings that required repair or replacement: a new communion table and clothes; flagons; common prayer book and book of homilies; and a new pulpit.[14] Although the Visitation records can provide a wealth of detail about some church fittings, in the case of Earls Colne they are silent about monuments and pews.[15] Therefore, Cole's description, when coupled with the details in King's drawing of 1653, and with Holman's description of 1722/3, provides a marvellously detailed account of the church exterior, and more importantly, the interior of St. Andrew's, with information not available elsewhere.

In the winter of 1722/3, Holman journeyed to Earls Colne to visit the church of St. Andrew. He meticulously recorded his findings there in a fresh notebook, one in a series of 264 notebooks he compiled on his visits to churches throughout the county, as it was his aim to write a history of Essex arranged by parish (Emmison 1969, 195 and 200). Twenty four years later, nearing the end of the winter 1745/6, William Cole came to Earls Colne as part of his project to compile "Extraneous Parochial Antiquities, or an Account of Various Churches with the Funeral Monuments in



Fig. 2 1653 sketch by Daniel King. Reproduced by permission of the British Library from Add MS 27350, folio 12.

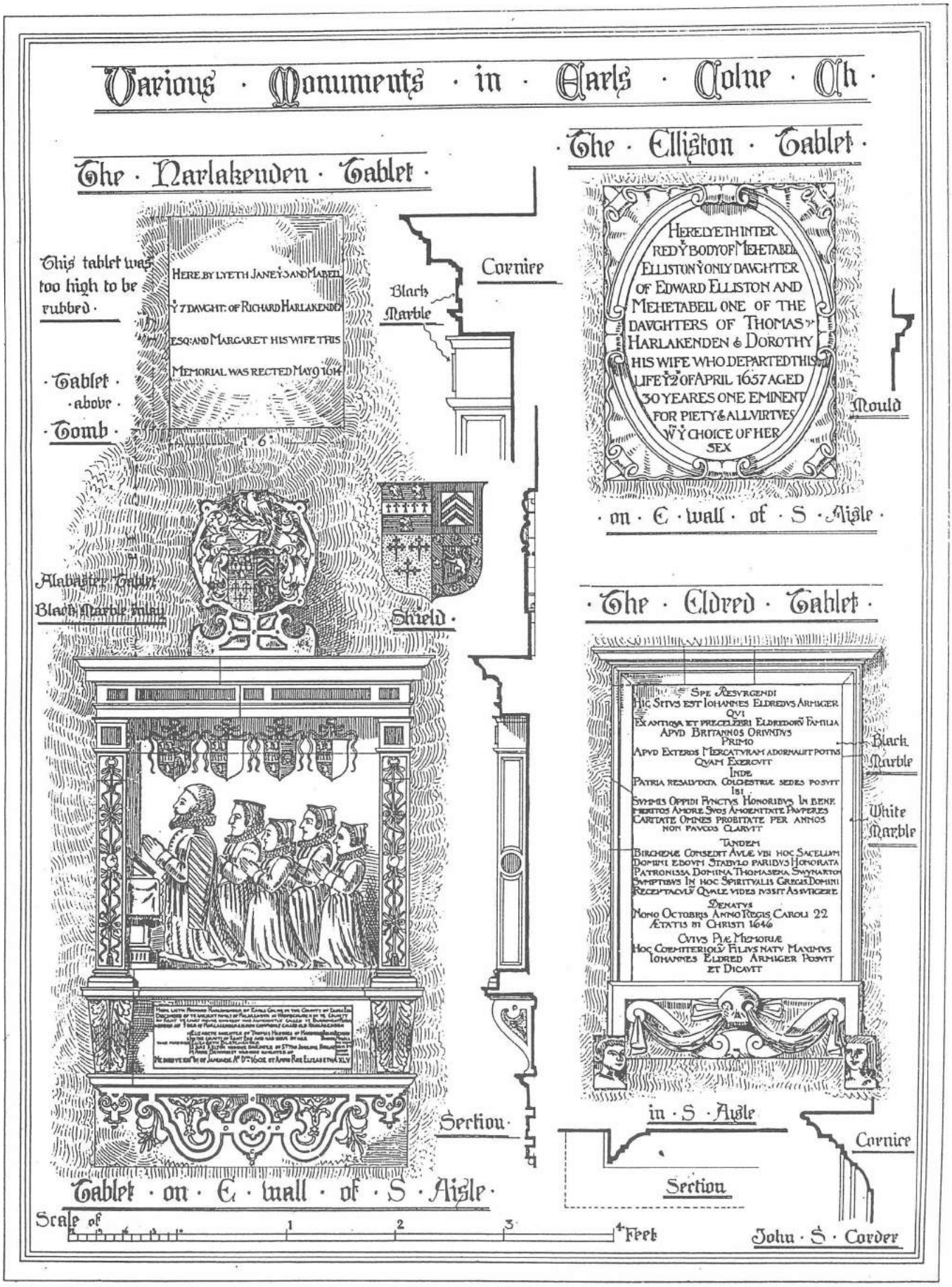
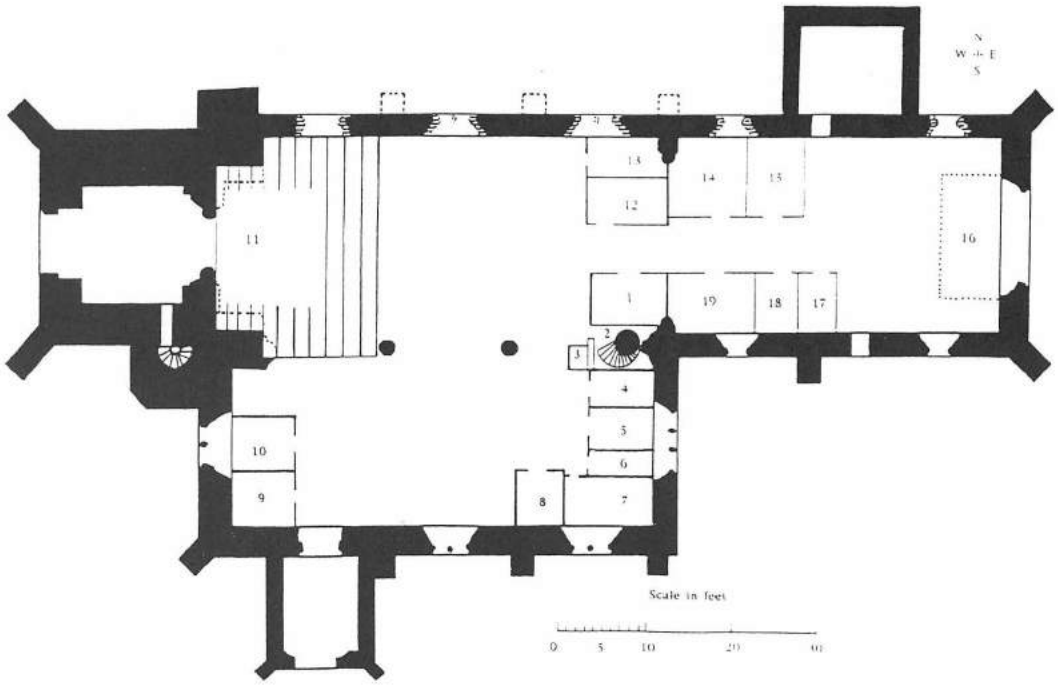


Fig. 3 Monuments in Earls Colne church (after Chancellor [1890] plate cxxxviii).



KEY:
1. Former site of de Vere monument between c1600 and 1746. This was described as the vicarage pew 1835.
2. Pulpit 1609-1835.
3. Reading desk 1687-1835.
4. Pew belonging to House at Colne Green, occupied by Mr Mathew Newman in 1726.
5. Pew belonging to House at Claypitt Green, occupied by Mr John Newton in 1726.
6. Pew belonging to House called Mathews alias Princes, occupied by Mrs Mary Parish in 1726.
7. Pew belonging to House called Hayhouse, occupied by Henry Abbott in 1687.
8. Pew shown in 1835, but no details appear. One of two possible locations for the Elliston pew of 1636. See also No. 12.
9. and 10. Two pews erected by 1835 over the former site of the Cressener vault of 1702.
11. Gallery with bench seats erected in 1725 by Marita Anna Cressener, widow, in memory of her husband George.
12. Faculty pew in 1835, second possible location for Elliston pew of 1636.
13. Former site of a de Vere monument between c1600 and 1746. Unidentified pew in 1835.
14. Unidentified pew in 1835. Possibly a manorial family pew from c1600.
15. Unidentified pew in 1835. Possibly a manorial family pew from c1600.
16. Altar railed in in 1636, and also shown as railed in in 1835. Whether the altar was railed in continuously between 1636 and 1835 is unknown.
17. Unidentified pew in 1835. Possibly a manorial family pew from c1600.
18. Unidentified pew in 1835. Possibly a manorial family pew from c1600.
19. Unidentified pew in 1835. Possibly a manorial family pew from c1600.

SOURCES: E.R.O. DL/C/618 Consistory Court, 1605; E.R.O. D/ACA 32 Archdeaconry of Colchester Act Book 32, 1609; E.R.O. D/ACA 51 Archdeaconry of Colchester Act Book 51, 1636; E.R.O. D/ALV 2 Bishop of London Consistory Court Visitation 1634-7; E.R.O. D/DHt T 73/41, Deed for Hayhouse pew, 1687; E.R.O. D/P209 Earls Colne Parish register miscellaneous 1725-26; Lambeth Palace Library, I.C.B.S. File No. 1918, Plan of Earls Colne church seating 1835; Guildhall Library Ms 9532/1, Vicar General, Diocese of London, 1685-1704.

Fig. 4 St. Andrew's church seating *c.* 1590 – 1835.

them in divirs Counties of England."[16] Cole was aware of Holman's visit almost a quarter of a century earlier, and he wrote of his disappointment at Holman's work being left incomplete and unpublished until after Holman's death, stating that Holman's work was "discontinued, to ye great Mortification of all lovers of antiquity, for want of proper Encouragement" [Cole's underlining].[17] During his 2-day stay at Earls Colne, Cole recorded the monuments and epitaphs that survived and noted down parts of his conversation with "Mr Wale of the priory" as they walked about the church.[18]

St. Andrew's church was built by the de Veres, the Earls of Oxford, between the 12th and 16th centuries, and was constructed of flint rubble, with limestone dressings.[19] Although the layout of the building is not known, the earliest reference to a church on this site dates from 1100 (Hammock *c.* 1969, 1). The first recorded evidence of alterations to the church appears in 1313 when the de Veres commenced the rebuilding of the existing church; however, the works were not completed until 1360 (Hammock *c.* 1969, 1). The layout established by 1360, which consisted of a nave, chancel and south aisle, formed the basic plan which was then added to and expanded over the next five centuries (Fig. 4).[20]

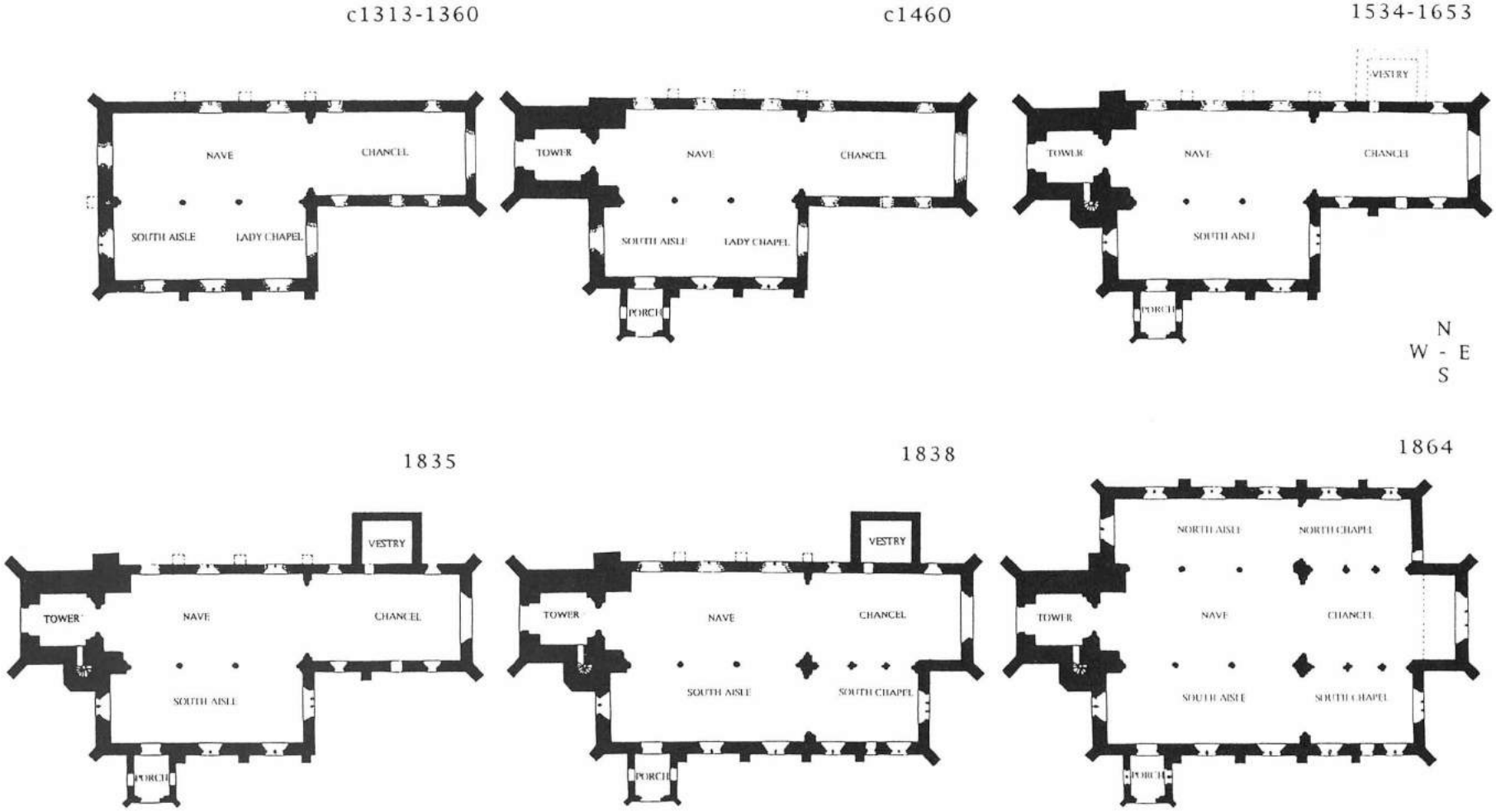
The first extension to the 1360 church plan was the addition of the west tower and the south porch in 1460 by John de Vere, 13th Earl of Oxford (*Essex* iii, 87). The tower was commenced in 1460 but was not completed. In 1534, John de Vere, the 15th Earl, had the existing base of the tower rebuilt, and added a further two stages, as well as a vice or staircase (*Essex* iii, 87). The 120 feet high tower was built with flint rubble on the north, west and part of the south faces, while the upper stages of the east and part of the south faces were constructed of brick, as was the vice. In December 1722/3, the Reverend William Holman noted that "on the east and west side of the underneath are the Quarterings of the veres within the Gartor + Supported by 2 Rain Deer the Helmet and mantle [with] a Boar for the Cross all carved in stone – under the Arms on each side are these figars [1534] show the time when this new [part?] was done" [Holman's underlining].[21] In February, 1745/6, the Reverend William Cole noted that the church had "a Tower at the W. End in w[hi]ch hang 6 Bells with a Turret at the S.E. Corner for the Saints Bell, on w[hi]ch is placed a small Cupalo."[22] In addition, Cole noted that on the battlement of the tower "the arms of Vere Earl of Oxford in 8 Quarterings; the same I presume as the Monument in Castle Heningham church; but this I am not absolutely certain of, not seeing clearly so high without the use of my spying glass w[hi]ch I had not about me."[23]

The St. Andrew's church that confronted Holman and Cole consisted of a church with a "south isle belonging to it, the chancell now All tyled.... and the steeple is built of stone, square and of considerable Height."[24] The dimensions given by Holman indicate a large church: he estimated that the nave was 17 yards in length and 8 yards wide; the south aisle was 7 yards long as it was wide; and he calculated that the chancel was 13½ yards long and 7 yards and one foot wide.[25] As for the tower, Holman stated that the inside measurements were about 4½ yards by 5½ yards.[26] It is not clear whether Holman's measurements were made by simply walking and then estimating the distance, or whether they were calculated by some sort of uniform measure such as a yardstick. They are, nevertheless, the earliest surviving measurements which give an indication, albeit rough, of the dimensions of the church.

Although both Holman and Cole described the main components of the church, they made no mention of the vestry. This is most likely because the vestry did not contain any monuments, or epitaphs which would have contributed to their antiquarian endeavours. St. Andrew's church had had a vestry since 1596, for in that year on Wednesday 25 May the church wardens reported to the Archdeaconry court at Colchester that "there is a sheet of lead of the vestry and of the church stolen or taken away and it raineth in to the ruin and destruction of the church and vestry."[27] There is no reference to the exact location of the vestry in any of the 16th or 17th-century documents. The earliest specific reference to the site of the vestry appears in the 19th-century records of the ICBS plan of 1835.[28] In this plan of the church, the vestry is shown on the north side of the chancel and was accessible through a door in the north wall.[29] Given that the 1835 plan predates the massive restorations and alterations of 1861-4, it is probable that this had always been the location of the vestry (Figs 1 and 4).

While both Holman and Cole gave general descriptions of the church building, their accounts can in no way be considered a complete inventory of the church and its fittings, nor are the items within the church that they chose to record identical. Instead, their notes reflect those aspects of the church which were of significance to their individual interests, primarily being to record the funeral monuments. These omissions in no way detract from the immense amount of information about the interior of the church which Holman and Cole can provide.

Although reluctant to record the more obvious aspects of the church and church fittings, Holman does describe the poor state of some of the windows. "In the east window of the south isle and north windows of the pace of the church were Escocheons but all gone or shatter'd."[30] Holman described the window tracery, but gave no details of the stained glass they might have contained. That was probably because the windows no longer contained any stained glass worth mentioning, for in the Michaelmas of 1641, Ralph Josselin and the churchwardens of Earls Colne "upon an order of the House of Commons to that purpose wee toke downe all images and pictures and such like glasses" (Josselin 1976, 12). Cole did make a note of the structural change that had occurred within the church in 1725,



SOURCES: British Library Add MS 27350, 1653 sketch of St. Andrew's, Earls Colne, Essex by Daniel King; Lambeth Palace Library. I.C.B.S. File No.1918, dated 1835, and File No.6048, dated 1861-4; S.J. Hammock, *A Short History and Guide to St. Andrew's Earls Colne* (no details, c.1969).

Fig. 5 Evolution of St. Andrew's church *c.* 1313-1864.

three years after Holman's visit, when a gallery was added. The gallery was funded not, as one might have expected, by the manorial family, but by the wealthy London merchant family, the Cresseners. In 1746, Cole states that "against the W[est] end of the church is erected a very handsome Gallery supported on 4 Pillars."[31] Cole wrote that "in the Front of it is wrote in gold letters this Inscription Erected + given by Maria-Anna Cressener, widow of George Cressener esqr Anno Domini, 1725 (Fig. 4, no. 11).[32] Cole also added that "the roof of [the] church is arched + plaistere + is very neet throughout."[33] These were the major structural developments that occurred between the 14th and 18th centuries.

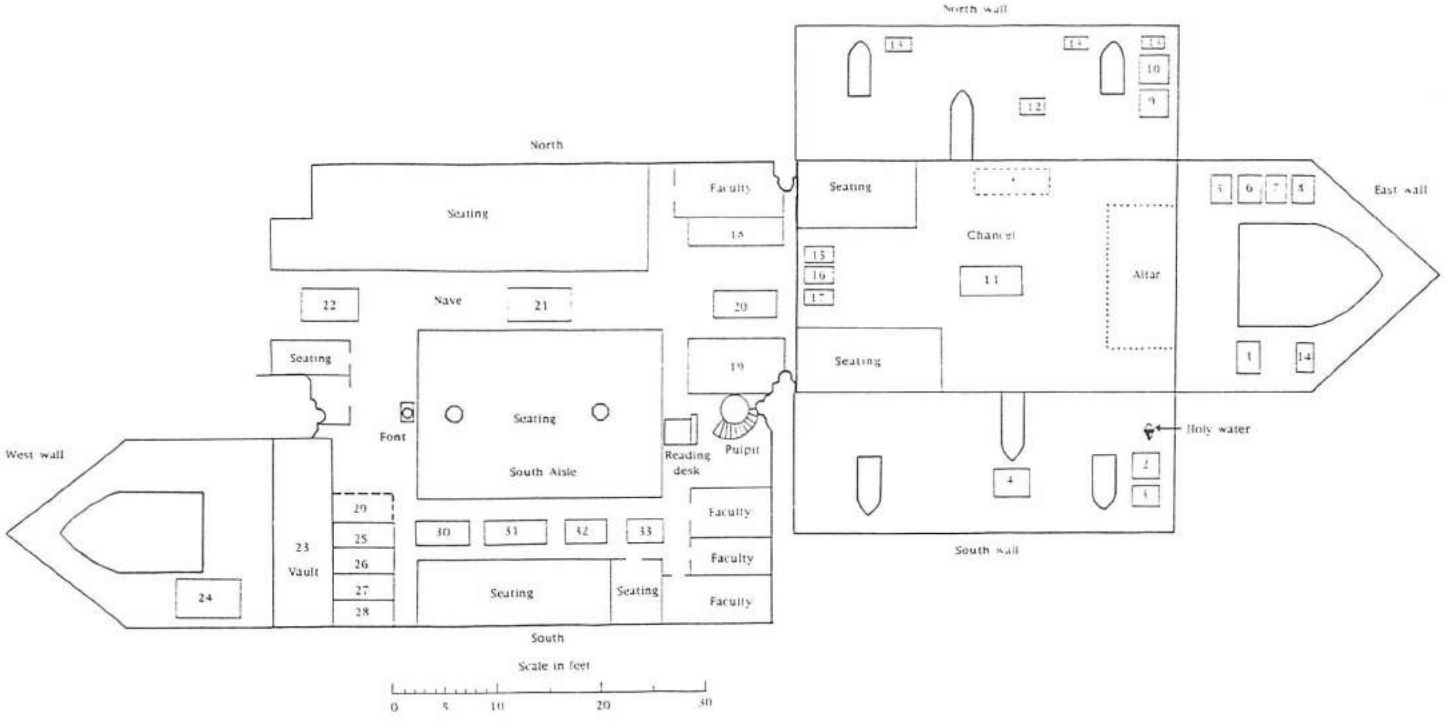
Monuments

It was in the church and churchyard that the funeral monuments described by King, Holman and Cole were arranged. There were three possible locations for monuments within Earls Colne parish church and churchyard: burial within the chancel, nave or south aisle with a monument erected on a wall nearby; burial within the chancel, nave or south aisle with a slab placed in the floor over the remains; burial within the churchyard with either a wooden or stone marker. In Earls Colne between 1559 and 1750, at least 3,561 people were buried in the church and churchyard.[34] Admittedly, a vast majority left no memorial to honour their passing.[35] Yet it is possible to reconstruct the location of some of the monuments in both the church and churchyard between *c.* 1490 and 1750 from the evidence to be found in Holman, Cole and the surviving funeral monuments. From the 18th-century accounts and surviving monuments, we have information on 39 monuments and achievements (Fig. 6). Only 19 of these 39 survive;[36] 10 in the church and 6 in the churchyard at Earls Colne; and 3 tombs which are now at Bures in Suffolk (Probert 1984-5).

Surviving wills contain instructions about monuments. Only two testators left instructions in their wills about the monuments they wanted erected after their death: they were Jeffrey Bukwell in 1490, and Roger Harlakenden in 1602/3.[37] Bukwell, who held the properties Seggs and Mordens, was buried in the lady chapel of the south aisle "before the altar" and instructed his executor that "a marble floor be bought and laid upon my bones there with perpetual remembrance in the same."[38] What Bukwell's marble floor contained in the way of inscription is not known. Neither Holman nor Cole identified any memorial to Bukwell; however, both recorded several monuments in the south aisle without inscriptions, and it is possible that the one closest to its east wall may have belonged to Bukwell.[39] If his monument had survived, it was probably removed when a south chapel was added to the church in 1838.

While Bukwell's monument was probably removed in the 19th century, the Harlakenden monument was not destroyed because of the prominence of this family within the village. Richard Harlakenden, following the directions of his father Roger's will of 1602/3, erected "a convenient tomb to be made there in the wall at the right hand of the door coming into the said chancel."[40] The inscription was to mention all of Roger's wives and children. The monument was made of alabaster, with black marble inlay, and was painted (Fig. 3).[41] The memorial depicts Roger Harlakenden kneeling with his hands clasped together in prayer. Behind him are his four wives also kneeling, with hands clasped in a pious pose. Various family coats of arms are displayed above the figures. The inscription declares Harlakenden's descent from "ye ancient Families of Harlakenden in Wood Church in ye county of Kent" and then sets out the names of his four wives and the issue from these unions. The monument was placed on the east wall of the chancel on the south side of the chancel window in full view of the congregation and proclaimed the social superiority of the Harlakenden family as manorial lords. Apart from the three effigies of the de Vere family, Roger Harlakenden's monument was the only other example in the church that contained effigies of the deceased (Fig. 3). There appears to have been some confusion concerning the inscription on the Harlakenden monument for in 1746 when Cole visited the church he was told by Mr Wale of the Priory, "who was with me while I took these Inscriptions," that "instead of Richard it ought to be Roger Harlakenden."[42] An anonymous 18th-century account of three of the monuments in the church states that "this monument was erected for Roger H[arlakenden] and not Rich[ar]d w[hi]ch was the mistake of the stone cutters."[43]

The Cressener family had buried at least seven of their family under marble slabs at the west end of the south aisle between 1610 and 1715.[44] Holman listed the monuments in 1722/3 and gave their inscriptions, while in 1746 Cole also described some of the physical features of these monuments.[45] Five of the nine stones laid in the floor with inscriptions and a further seven without inscriptions listed by Holman and Cole, belonged to members of the Cressener family. Of all the floor monuments mentioned by Holman and Cole, only one survives in the church today in the south porch, and is to the memory of Mary Sibly, wife of Nathaniel, and daughter of George Cressener, who died in 1677 aged 36 (Fig. 6, no. 22). In 1701/2, John Cressener, grocer of London, applied for a faculty to erect a vault "in a certain peece of ground at the West end of the said church from the South dore leading towards the Northe Doore."[46] The vault was to "contain in length from the South to North twenty one feet or thereabouts, and in breadth about twelve feet for a Buryall place for himself, his family and Relations."[47] The application was successful and Cressener was to "pay the usual Dutyes or fees to the Minister Clerk and Parish for every such buryall as shall be there made."[48]



KEY:
1. 1602/3 Roger Harlakenden and his four wives, carved in relief.
2. 1729 Mary Androwes widow of Daniel Androwes, and 1681 Daniel Androwes, marble monument with coloured coat of arms.
3. Achievement of the Androwes and Harlakenden families.
4. 1726 George Biddulph of Poleworth, Warwick. The monument was erected by his widow Frances who was the youngest daughter of Mary Androwes.
5. 1709 Plaque recording the removal of monument no. 6 of John Eldred from Birch to Earls Colne, by his grandson, John Eldred.
6. 1646 John Eldred of Birch in Essex, with two carved heads and a skull.
7. 1682 John Eldred of Olivers and 1678 Ann Eldred wife of John monument.
8. Achievement of the Eldred family.
9. 1657 Mehetabell Elliston, grand daughter of Thomas Harlakenden, monument.
10. 1717 John Eldred monument, and 1732 John Eldred monument. This monument also commemorates John Eldred who died in 1682, mentioned in no. 7.
11. c1296 Robert de Vere, fifth Earl of Oxford, tomb and effigy. Moved from the Priory to the centre of the chancel, though by 1722 it had been moved against the north wall over the burial place of Ralph Josselin's children and Mrs Mary Church.
12. 1614 Jane and Mabel Harlakenden, children of Richard Harlakenden, monument.
13. Achievement of the Eldred family.
14. Achievement of the Harlakenden and Andrews families.
15. Grey marble stone without any inscription.
16. Grey marble stone without any inscription.
17. Grey marble stone without any inscription.
18. c1371 Thomas de Vere, eighth Earl of Oxford, tomb and effigy.
19. c1417 Richard de Vere, eleventh Earl of Oxford and his wife Alice Sergeaux who died in 1451, tomb and effigies.
20. Grey marble stone with inscription: 'Lest you pray for the sowlys of Robert Bilton [and] Agnes his wife on whose Sowlys thee have mercy', disrobed of its brass showing only the outline of a man and a woman and two spaces for their children.
21. 1740 Mr Gilbert Smith, grandson of Ralph Josselin, marble stone.
22. 1677 Mary Sibley, wife of Nathaniel Sibley of London, and daughter of George Cressener, marble stone.
23. 1702 Cressener family vault.
24. 1722 George Cressener, Merchant, monument.
25. 1676 George Cressener, marble stone.
26. 1668 Humphrey Cressener aged 12, and 1715 John Cressener his brother buried under the same marble stone.
27. 1677 George Cressener, marble stone.
28. 1656 Edward Cressener aged 12, marble stone.
29. 1610 George Cressener, marble stone, and 1648/9 Edward Cressener, his son, buried under the same stone. Exact location at west end of south aisle is unknown.
30. Grey marble disrobed of brass plate.
31. Grey marble stone without inscription.
32. Grey marble stone without inscription.
33. Grey marble stone without inscription possibly belonging to Jeffrey Bukwell dating from c1490.
*Burial place of Ralph Josselin's children. In 1648 Ralph was buried and in 1650 Mary was buried in the same grave. In 1650 Ralph and Mrs Mary Church buried in the same grave. In 1673 Thomas and Anne were buried in the same grave. It is possible that Ralph Josselin was buried near his children in the chancel.

NOTE: The funeral tablets that appear on the walls are referred to as monuments, while those that appear on the floor are called stones. The size of the funeral monuments and stones indicated in the figure does not represent their actual size. The only monuments for which dimensions are known are the 1602 Harlakenden monument, the Cressener vault and wall monument and these are referred to in the body of chapter 2. Similarly the exact position on each wall, or in the floor, of each tablet is unknown as the contemporary descriptions only give general details, such as on the north wall or in the floor of the south aisle. In addition the descriptions only identify each monument in relation to other monuments positioned above, below or next to them. As for the position of the railed in altar, it was known to have been placed at the eastern end of the chancel in 1636 and a railed in altar was also recorded in 1835. It is not known if this was its positioning during the intervening period.

SOURCES: E.R.O. T/P 195/11 Holman's manuscript for Earls Colne; British Library Add MS 5836, folios 10-33, Cole's manuscript of Earls Colne; Lambeth Palace Library, I.C.B.S. File No. 1918 dated 1835, and File No. 6048 dated 1861-4; E.R.O. D/ACV 1-18, Archdeaconry of Colchester Visitations 1586-1750; E.R.O. D/ALV 1-2, Bishop of London Consistory Court Visitations 1625-1637; P.R.O. PROB 11/101/302-303v, Will of Roger Harlakenden, 1602; Alan Macfarlane, *The Diary of Ralph Josselin* (London: Oxford University Press, 1976).

Fig. 6 Funeral monuments in St. Andrew's church *c.* 1490-1750.

Holman described the vault as"[arched?] of Brick" and placed "under the west window."[49] Cole recorded that "the Floor above it is raised at the W[est]. End of this S[outh]. Isle + paved with black and white marble, ab[ou]t a foot half fr[om] the rest of the Pavement: it is also railed in with handsome Iron Balustrades."[50] In addition, Cole stated that the vault contained "ab[out] 7 corpses in it," although when "the Door was opened" he declined to enter because "it seemed so damp + close that I cared not to go into it."[51] Above the vault of 1702 was erected the memorial to George Cressener which Cole described as " a most elegant + expensive white marble Monument."[52] There is no record of the cost or maker of the vault.

The memorial was erected by Maria Anna Cressener, the widow of George, who also funded the addition of the gallery at the west end of the nave in memory of her husband. The monument contained a lengthy inscription of the descent of the family and the coats of arms of various related families. It is clear from the inscription that Maria Anna Cressener was following the instruction left by her husband as "this monument was by himself order'd to be erected."[53] On top of the monument there is still an achievement, a helmet, which, according to David Brown in February 1993, survived from the funeral. A 19th-century account of the monument states there was also once a banner which "from a projecting portion of this contrivance [helmet] hung a black looking object, which might have been a dilapidated duster, worn with rubbing, choked with dirt, and rotting from age."[54] The banner has since gone missing. George Cressener made no reference to the monument, nor to a heraldic funeral in his will. The monument erected to perpetuate George Cressener's memory was the largest and most impressive monument ever set up in the church. Yet it is remarkable that Frederic Chancellor failed to mention it when he visited the church in the latter part of the 19th century. Perhaps this monument was too late to be of interest to him.

Between 1614 and 1732, seven other monuments were erected by the Harlakendens, their in-laws the Ellistons, Androws, Bidolphs and Eldreds in the chancel of St. Andrew's. The first of these was a small tablet commemorating Jane the third daughter and Mabel the seventh daughter of Roger and Margaret Harlakenden. The small tablet was made of alabaster and placed on the north wall of the chancel between the two windows. While the monument was intended to commemorate the children of Roger and Margaret Harlakenden, by 1691 it recorded several initials and the years of their carving. The graffiti appeared repeatedly on this monument between 1691 and 1694, and took the form of the initials I.P. and then the name James Potter (Fig. 3).

In addition to the Harlakenden tablet, there was a memorial erected in 1657, during Josselin's incumbency, to Mehetabell Elliston "one eminent for piety & all Virtves w[i]th ye choice of her sex" who died aged 30.[55] Mehetabell was the only child of Mabel Harlakenden, cousin of the manorial lord, and her husband Edward Elliston. Josselin described Mehetabell as "our loving Friend Mrs Ellistons daughter," and noted in his diary that at midnight on April 1-2 of 1657 she died (Josselin 1976, 158 and 395). Her funeral was held on Saturday 4 April 1657 and she "was buried at the upper end of the North side of the chancel, her father bestowed a beautiful funeral on her, many of her friends carried her to the ground." Josselin described how "Mr R[ichard]. H[arlakenden]. and I laid her unto grave at the head and two uncles at the feet ..." (Josselin 1976, 395-6). Some time later, Edward and Mabel Elliston erected a monument on the north wall of the chancel. The memorial comprised an oval of black marble, set into a cartouche of black alabaster. The inscription was on the black marble oval "in gold letters" and spoke of the piety and virtue of the woman it commemorated.[56] The burial within the chancel was due to her maternal connections with the Harlakendens, and the monument also paid tribute to her maternal grandparents (Fig. 3).

Four more monuments were erected by descendants of the Harlakenden family and their in-laws in the chancel. These monuments commemorated the Androwes, Eldred and Biddulph families. In 1709, John Eldred had the funeral monument of his grandfather, John Eldred of Birch, who died in 1646, transferred to the east wall of the chancel of St. Andrew's church because the church at Little Birch was in ruins (Chancellor 1890, 364). The monument was made of black and white marble, and at the base there were two heads carved in relief, and in the centre a skull or death's head. The inscription was in Latin, and contained an account of the Eldred family (Fig. 3). A monument was initially erected to John Eldred's son John, who was buried at Earls Colne in 1682, and John's wife Ann, who died in 1678, on the east wall of the chancel.[57] The 1682 monument no longer survives, for in 1732 a white marble replacement was erected, which in the inscription included the above mentioned John Eldred, but not his wife Ann, and two other members of the family: John Eldred (c.1629-d.1717), who married Margaret Harlakenden the daughter of Richard Harlakenden (c.1606-d.1677) in 1657, and John Eldred (c.1666-d.1732).[58] In 1726, Francis Biddulph, widow of George Biddulph of Polesworth in Warwick erected a monument (also of white marble) on the south wall of the chancel to the memory of her late husband. Francis Biddulph was the grand-daughter of Richard Harlakenden (c.1631-d.1659) and daughter of Mary and Daniel Androwes.[59]

Like the Eldred monument of 1646, not all of the church adornments recorded by Holman and Cole had originally been intended for St. Andrew's. The three de Vere monuments are fine examples of this. Although the Earls of Oxford had built St. Andrew's church, it was not their burial place. They were interred at St. Mary's Priory church at Earls Colne where, from the 12th century until the dissolution of the Priory, at least eight de Vere monuments were erected (Fairweather

1938, 293; Powell 1974, 90; Probert 1984-5, 53). Morant (1768, vol.2, 213) stated that "for some of these noble Persons there were stately Monuments erected in the priory church." Following the ruin of St. Mary's church after the dissolution, three of the surviving monuments of the de Veres were transferred to the parish church of St. Andrew's between 1536 and 1631 (Fairweather 1938; Probert 1984-5, 53-4). The three monuments have been identified as belonging to Thomas, eighth Earl of Oxford; Richard, eleventh Earl and his wife Alice Segeaux; and Robert, fifth Earl (Fairweather 1938, text for plates lxxxvii/1, lxxxviii/2 and plate lxxxix/1; Powell 1974, 90-4; Probert 1984-5, 53-4). The monument of Thomas, the eighth Earl (d.1371) was placed on the north side of the nave and enclosed in a pew.[60] The tomb of Richard, eleventh Earl (d.1417) and his wife Alice Segeaux (d.1451) was placed under the pulpit on the south side of the chancel arch.[61] The monument of Robert, fifth Earl (d.1296) was initially placed in the centre of the chancel and then moved to the north side of the chancel between the two windows.[62] By the early 17th century, these monuments were "shamefully defaced" (Weever 1631, 613). Fairweather states that these three de Vere monuments were transferred to the Priory Manor House in *c.* 1825-7 by Henry Holgate Carwardine, a descendant of the Harlakenden family (Fairweather 1938, 294; Probert 1984-5, 54).

The Harlakenden (Fig. 6, nos 1 and 12) and Elliston (Fig. 6, no.9) monuments remained in their original positions in the chancel until 1875, but four (Fig. 6, nos 2,4,5 and 6) were moved between 1745/6 and 1875: the Androwes, Eldred (1709) and Bidolph monuments were moved to the north wall of the chancel; the Eldred monument of 1646 was moved to the south wall of the chancel. The only reason we know where these were located after the restoration of 1864 is because in 1875 the Parish applied to the Bishop of Rochester for a Faculty to erect a "reredos of freestone with a representation of the Last Supper in mosaic at the back of the Communion Table" (ERO D/CF 14/4, 1875). In this application, a total of 13 monuments including the seven listed above, were to be moved, although the faculty did not indicate their new location. In the latter part of the 19th century, Chancellor (1890, 363-5 and plate cxxxviii; reproduced as Fig. 3) visited St. Andrew's and listed the location of four of these monuments; the Harlakenden monument (1602) was on the east wall of the south aisle; the Harlakenden tablet (1614) was also here above it; the Eldred monument (1646) was in the south aisle; and the Elliston monument (1657) was on the east wall of the south aisle. In 1991, when I visited the church with the churchwarden David Brown, the Harlakenden monument was still on the east wall of the south aisle, but the Harlakenden tablet and the Elliston monument had both been moved onto the south wall of the south aisle. In 1979, an inventory of the locations of all monuments in church and churchyard was compiled by members of the Essex Society for Family History (1977-8) and no doubt this will become the Holman or Cole for future generations.

Although no monuments were erected to their memory, Ralph Josselin mentions in his diary the burial locations of his five children who predeceased him, saying in July 1673 "twenty three yeares before god opened the grave and Mary first the eldest of that brood and Ralph the youngest after, lay in the same grave(.) god hath taken 5 of 10. lord lett it bee enough" (Josselin 1976, 568). All of Josselin's children were buried in the chancel. His fourth child Ralph, who was only ten days old when he died in 1647/8, was "layed in the chancell on the North side of the great Tombe" of Robert de Vere, fifth Earl of Oxford (Josselin 1976, 114). Mary, Josselin's oldest child, "was: 8 yeares and 45 days old when shee dyed" on 27/8 May 1650 and "was buried in Earls Colne church by the uppermost seats" (Josselin 1976, 203). A week later, Josselin's fifth child Ralph, just over a year old, died and so too did Josselin's close friend Mrs Mary Church (Josselin 1976, 204). They were "buried togither in the church" (Josselin 1976, 205). In 1673, Josselin buried his second child, Thomas, aged 30, in June and then his daughter Ann, aged 20, in July. Josselin (1976, 567-8) wrote that Ann" following her brother[Thomas] to London, and from thence hither, to lie in his grave, loving in their lives and in their deaths they were not divided, lying in the same grave." When Cole visited the church, although he could find no memorial for Ralph Josselin, he assumed the latter had been buried in the body of the church.[63]

St. Andrew's churchyard was the final resting place for most of the villagers of Earls Colne, though not necessarily for all. The 1598 depiction of the churchyard by Israel Amyce is the earliest,[64] showing the churchyard lying mainly to the south, east and west of the church, with a narrow strip of land to the north. Between 1598 and 1866, the area of the churchyard was first reduced by additions to the church; it was then extended, engulfing some of the neighbouring properties. The general rarity of pre 18th-century monuments in churchyards, coupled with specific changes to the churchyard at Earls Colne, explains why there are only six monuments surviving from before 1755. Unfortunately, neither Amyce or King included any grave markers in their depictions of the churchyard. In addition, Holman did not extend his survey of monuments to include those in the churchyard. Only Cole mentioned one monument there, and it was the later tomb of John Eldred who died in 1738. These omissions were not surprising, as the village elites, which were the focus of their respective interests, lay inside the church.[65]

The extensions to the church have removed an unknown number of gravestones, leaving an incomplete pattern of the six monuments dating from between 1708 and 1755. Of the six surviving monuments, four lie close to the south side of the church,

one lies on the north side of the tower, and one is situated against the east wall of the chancel. The earliest monument on the north side of the tower commemorated William Harrington (d.1708), about whom we know nothing.[66] The next monument was situated near the south porch and commemorated "Francies" Hutchinson (b.1691-d.1712), who died aged 21. She was the wife of John Hutchinson the eldest, and daughter of John Fletcher, an innkeeper of Earls Colne, and his wife Martha.[67] The monument closest to the chancel belonged to John Eldred, a member of the manorial family, who was buried in the churchyard due to lack of available space in the chancel in 1738.[68] On the south side of the church there were two other gravestones (Fig. 7): a body tomb with head and foot stones commemorating "Bridge Newton" (d. 1741), and a head and foot stone memorial to Hannah Ruffle, who died aged 28 in 1750, and her 12 year old son Richard (d. 1755). Ruffle was the only daughter of John and Hannah Newton, who had erected a pew in 1726.[69]

Pews

In addition to the setting up of monuments, another principal means enabling villagers to display their wealth and significance within the community was in the organisation of pews within the village church. McIntosh (1991, 198-9) described the organisation of pews as "the religious custom most explicitly tied to status .... the location of a family's pew [was] a powerful physical representation of its standing within the community." The right to a church pew could be determined either by the occupation of a house, which had a corresponding seat within the church, or by the size of the church rate payment each villager made (Gough 1981, 77). The larger properties paid higher rates, and were therefore entitled to bigger seats. In either case, the prominence and prestige of the more eminent village families was plainly visible by the size and location of their pews either close to or at the front of the church. Hey (1974, 219) states that on every occasion that brought the villagers together, "old and young, male and female, rich and poor," the "social gradations within the community were formalised by the strictness of the seating arrangements."

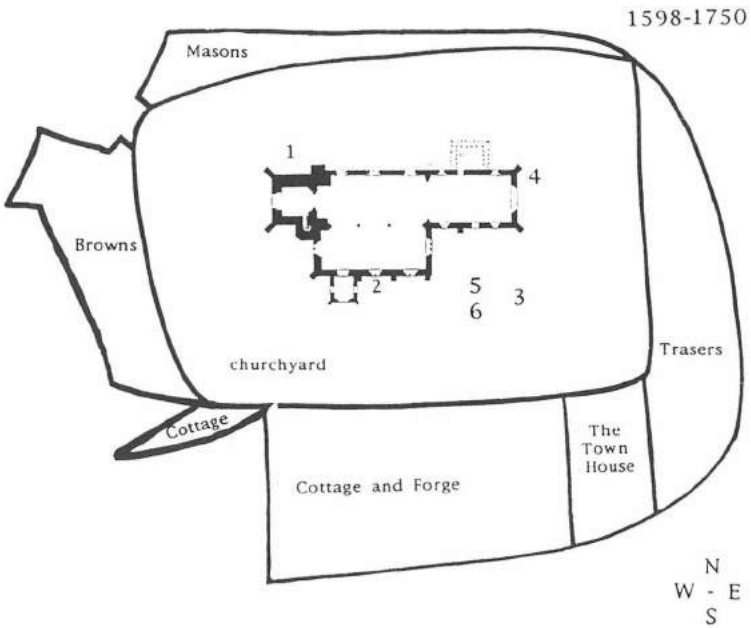
Earls Colne appears to have been no different, on the basis of the evidence that survives. There appear to have been two approaches to allocating seats during the 17th and early 18th century: the customary pew system, and, as circumstances changed and the village population grew, the flexibility to erect additional pews when required. While no seating plans for Earls Colne survive, the right to a pew, or a sitting within a pew, or on a bench, was determined by the dwelling a person occupied, either as a tenant, subtenant or owner, for the occupation of a house or cottage within the parish brought with it the right to a seat in church. Richard Gough's famous observation about the nature of seating rights in Myddle, Shropshire, can also be said to apply here: "as [a] pew or seate does not belong to a person, or to land, but to an house" (Hey 1981, 77).

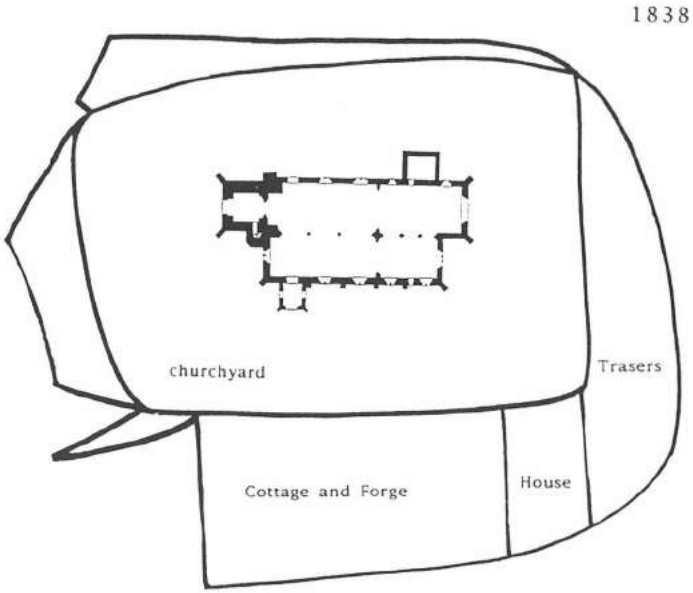
Although seven pews were built between 1605 and 1726, it is only possible to locate six of these based on the ICBS information provided in the plan of 1835 (Fig. 4).[70] In 1605, Richard Harlakenden, manorial lord and lay rector, was called before the Consistory Court for "setting pews there [in the chancel without] licence of the ordinary to the hindrance of the communicants."[71] Harlakenden claimed that they had been built by his father, and although he was ordered by the Court to remove them, there is no evidence that he did. These pews could be those to which Holman referred as "Several old pewes in the church have the mulet on them."[72]

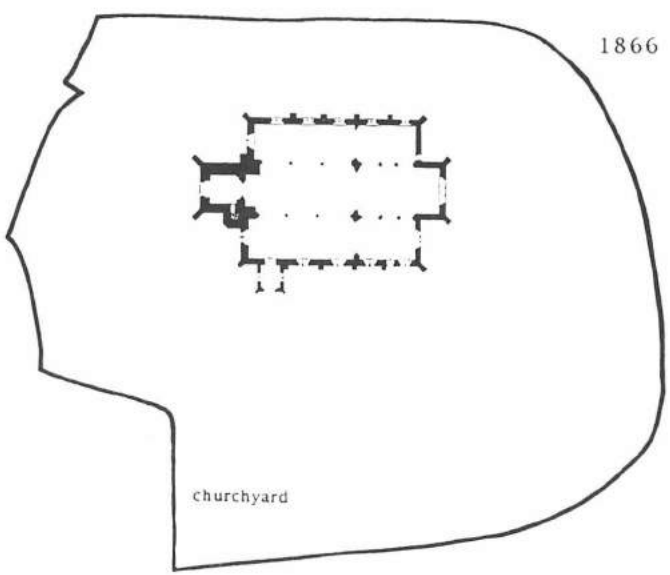
The molet, or boss, of the de Vere family, was that of a star, and the pews Holman described were most likely located in the chancel, as the de Veres were the former lay rectors of St. Andrew's church. Cole also mentioned "the chancel is pretty large + has some old stalls in it on bothsides ... The chancel is wholly paved with square Bricks, except the 2 or 3 gravestones ... w[hi]ch lie in the N.W. Corner."[73]

In the late autumn of 1687, a faculty was granted by the Archdeaconry of Colchester to Henry Abbott junior giving him permission to "construct a seat in which the proper time[for?] celebration of the devine service he may sit to pray and hear divine service and knell [sic] with his wife and family."[74] The parishioners consented to Abbott's application nominating "a vacant place appropriated to no parishioners on the south side of the said church next to the east wall."[75] The dimensions of the pew were given as ten and a half feet in length and five and a half feet in width, and that the pew "should not exceed in height six feet."[76] The width of the pews during the 17th and 18th centuries appears to have been variable, although the height and length of a pew was governed by the existing pews. The most significant aspect of the application was the grounds upon which it was granted. "We give you this special licence that you may be able to construct and erect a seat ... to you and your successors inhabitants in the house or habitation commonly called the Hayhouse situate in the parish of Earls Colne."[77] The right to Hayhouse pew would also then pass on to subsequent occupiers. The location of this pew against the south wall at the east end of the south aisle facing the pulpit, is central in locating the later pews of 1726.

Between 1725 and 1726 the addition of four pews was to be agreed to by the parish vestry with approval, supposedly, from the Bishop of London. These applications coincided with the re-pewing of the church in 1726 which included the additional seating provided by the Cressener gallery of 1725. In December 1725, at a meeting of the vestry members, the application of Thomas Barnard, vicar of Earls Colne, was ratified. Barnard proposed "that where as the vicarage pew was as it is at present too small for my wife and family I propose to quit that instead of to build a new one by the







KEY:

1. Round-topped headstone with cusps, laid flat. 'In Memory of/ Will[iam] Harrington/who departed this life/July 4 1708/ Aged ? '.
2. Head and footstones. 'Here lyeth/Interred the Body of/ FRANCIES HUTCHINSON/ Wife to JOHN HUTCHINSON/Eldest Daughter of/JOHN Fletcher and MARTHA/ his wife who Departed/this life ye 29th of JULY/in the year of our Lord/1712 Age 21 years'.
3. Round-topped headstone with skull and incised border, with foot stone. 'Here lyeth the Body/ of MARY the Wife of SAMUEL/PATTRICK Who departed this/Life/ February ye 1st 1738/Aged [33? or 38?] years./My wife so dear from me/is gone for God would/have it so[.] And unto Me/ Cannot Return/But I to her Must Go'. Inscription on Footstone, 'MP 1738/Stay, Look and Consider'.
4. Large flat-topped box-tomb. 1738 John Eldred aged 33.
5. Round-topped headstone with body-tomb and footstone. Lid of tomb inscription 'Bridge Newton/Died Sep 17 1741/Aged [49?] years'.
6. Round-topped headstone with body-tomb and footstone. 'Here/lies interred/HANNAH RUFFLE/Late Wife of/RICHARD RUFFLE/and only Daughter of/JOHN and HANNAH NEWTON/who died 25 May 1750/Aged 28 Years/Also of RICHARD their Son/who died in August 1755/Aged 12 Years' Inscription on footstone. 'HR/1750/RR/1755'.

Sources:
E.R.O. T/Z 151/6/1, C8, 18, 19, 39, 222, 'Monumental Inscriptions St Andrews Earls Colne', copied by members of the Essex Society for Family History 1977-8, collated, typed and indexed by Jack H. Baxter, 1979; E.R.O. D/CC 17/2, Consecration of Earls Colne additional churchyard, 1866; E.R.O. D/DPr 568, Eighteenth-century transcriptions of the monuments of Earls Colne.

Fig. 7 St. Andrew's churchyard 1598-1866.

north door at my own cost."[78] There is no north door on the 1835 plan, but a vicarage pew is shown on the north side of the pulpit (Fig. 4). In addition, Barnard proposed that "the charge of the building of the said pew is to go in part of the tenth which I lately proposed to give towards the new pewing of the church."[79] The ICBS plan of 1835 most likely shows the re-pewing after 1726 (Fig. 4).

On 25 September 1726, Mrs Mary Parish requested to "have the pew in the east end of the south aisle ... appropriate to her house called Mathews als Princes."[80] The pew was to be "3ft in breadth and 7ft in length the back adjoining to a pew called Hayhouse pew," which we know was against the south wall at the east end of the south aisle.[81] The third and fourth applications were both made on 13 November 1726 by Mr John Newton and Mr Mathew Newman. Mr Newton sought permission to erect a pew in the south aisle at the east end which was "appropriate to his house called Claypits," and the pew was to be "4ft 8in[ches] in breadth and 7ft in length being the second pew from the pulpit southwards."[82] Mr Newman's pew was also to be "in the east end of the south aisle ... appropriate to his house upon Colne Green," and was to be "4ft 7in[ches] in breadth and 7ft in length" adjoining the reading desk.[83]

Although three out of four applications made between 1725-6 described themselves as "faculties" with "leave of the right reverend Edward Lord bishop [sic] of London (our ordinary)," they were deemed not to be so in 1839 according to the Archdeacon of Colchester, W.R. Lynch.[84] In a memorandum of 10 April, 1839, Lynch stated that "having perused this and the next pages I think it right to state that the above entries are not faculties and confer no sort of right what soever to the pews specified."[85] The validity of these faculties came into question in 1839 because of an application in 1838 by the parishioners to the ICBS to add a south chapel and further increase the seating capacity by 150 seats at a cost of £730.[86]

This was not the first application made to the ICBS, for the Reverend R.Watkinson applied on 2 November 1835 "for aid towards increasing the accommodation... by erecting an additional Gallery with needful repairs."[87] The old gallery was "now in a dilapidated state owing to the decay of Timber + settlement of walls," and had been examined by Mr Abraham Rayner "an experienced Architect of Halstead."[88] The new gallery was to be erected over the south aisle and would provide additional "free and unappropriated sittings" for 75 people, in addition to the existing 604 seats, of which 508 were "free".[89]

This plan of 10 December 1835 provides with a last view of the 18th-century church, prior to the major extensions of 1838 and the further enlargement and entire re-pewing of 1861-4. It was at this time that the Cressener monument was moved from the west wall of the south aisle. Philip Buck in his recollections mentioned sitting in the Cressener gallery as a boy and noticing "on our left on the north wall of the chancel was a big tablet in memory of George Cressener."[90] The plan also indicates the old box pews, varying in size, with the seats in the nave decreasing in size the further west one went. All the seating in the galleries was shown as benches which were equal in size to the smaller seats in the north aisle of the nave. The back four benches on each side of the organ were smaller in size again. All of the seating was removed and replaced by uniformly sized benches during the restoration of 1861-4 (Fig. 1),[91] which also removed both the Cressener gallery of 1725 and the additional gallery of 1835, the reading desk, and the 18th-century pulpit, which was described in the Archdeaconry of Colchester Visitations in 1858 as "awkwardly high: unsightly" and "inconvenient," and again in 1860 as "awkwardly high + inconveniently situated."[92]

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Notes

1. Essex Record Office (hereafter ERO) D/P209/1/3, Earls Colne Parish Burial Register, Th 30/8/63 (Macfarlane 1980). When quoting from Macfarlane (1980), I list the record office or library details, the individual microfiche number for each item, followed by the name of the record series and the date. All text in square brackets is my own.
2. William White, in 1848, listed Frederick Cawston, 'plumber, painter, glazier and agent to Norwich Union & Hailstorm Ins. Cos.', Zachariah Rogers, 'bricklayer and maker,' and Joseph Clark, carpenter, as all being of Earls Colne (White 1848, 143).
3. Lambeth Palace Library (hereafter LPL), Fulham Papers, London Visitations, Howley 48/81, 6 January 1815, and ICBS File No. 1918, No. 2335 and No. 6048. In LPL, Fulham Papers, London Visitations, Randolph, PP. 1056-163, April-May, 1810, in addition to the established Church, there were also 'Dissenters', for the return for the village listed both a Quaker meeting house, which had been established in the middle of the 17th century, and 'Anabaptists having a Licensed Meeting House', but 'No Papists'.
4. LPL, ICBS File No. 6048, Application, Undated *c.* 1861-4.
5. British Sessional Papers, House of Commons, 58, [Microprints], (New York 1962), 553 and 612, 'Returns showing the Number of Churches (including Cathedrals) in every diocese in England, which have been built or restored at a cost exceeding £500 since the year 1840', 3 June 1875.
6. The 1864 plan of St. Andrew's church by Henry Hayward is reproduced by permission of Lambeth Parish Library from ICBS File No. 6048.
7. ERO D/DSm P1, Israel Amyce map of 1598 which accompanies a Terrier for the Manors of Earls Colne and Colne Priory.
8. The drawings are now held at the British Library (hereafter BL), Add MS 27348 and Add MS 27350.
9. BL Add MS 27350 'Earl's Colne Church Com: Essex D[aniel] K[ing], 1653.'
10. The 1653 sketch of St. Andrew's by Daniel King is reproduced by permission of the British Library from Add MS 27350, folio 12. According to Hammock (*c.* 1969, 3), the copper Corona,

or crown, and the weather vane were thought to date from the late 17th – early 18th century. The evidence of Daniel King's drawing would suggest that both date from the mid 17th century, if not earlier.

11. The Reverend William Holman (b.? – d.1730) was the minister of Halstead Congregational church from 1700-1730. Holman never published his history, although his manuscript was drawn on heavily by Morant (1768) for his 2-volume *History and Antiquities of the County of Essex* (Addison 1973, 103-4). Holman's manuscript for Earls Colne is held at the ERO T/P 195/11, 'Earls Colne' No. xviii History of Earles Colne drawn up by William Holman of Halstead Dec. 27, 1722/3. These volumes are not paginated, so the numbers in square brackets are my own, and page one is taken to be the first page with writing. The Reverend William Cole (b.1714 – d.1782) was a Cambridgeshire antiquarian. The Cole manuscript is held at the BL Add MS 5836, with the description of Earls Colne between folios 10-33.
12. ERO D/ACV 9b, 1.01011, Archdeaconry Visitations, Tu 17/6/1684, and ERO D/ACV 9a, 1.01509, Archdeaconry Visitations, Sa 18/10/1707 (Macfarlane 1980).
13. ERO D/ALV 2, 2.00111, Bishop of London Consistory Court Visitations, Th 14/12/1637 (Macfarlane 1980).
14. ERO D/ACV 9b, 1.01011 and ERO D/ACV 9a, 1.01509 (Macfarlane 1980).
15. There are references to people involved in pew disputes in the Archdeaconry of Colchester Act Books in 1611 and 1616, but there are no physical descriptions of the pews involved or their location. See ERO D/ACA 32, 18.00538, Archdeaconry of Colchester Act Book 32, Th 17/1/1611, and ERO D/ACA 40, 18.03261 and 18.03283, Archdeaconry of Colchester Act Book 40, Th 13/10/1616 (Macfarlane 1980).
16. BL Add MS 5836, Cole.
17. BL Add MS 5836, Cole, folio 24 recto.
18. BL Add MS 5836, Cole, folio 24 recto. Mr Wale was the lord of the manors of Earls Colne and Colne Priory at this time, and was a descendant of the Harlakendens who came to the village in the last quarter of the 16th century.
19. The oldest surviving material in the church that stands today dates from the mid 14th century, and is found in the sanctuary at the east end of the chancel (*RCHME* Essex, iii, 87).
20. I am grateful to Ray Osborne not only for drawing Figs 4-7, but also for his helpful suggestions.
21. ERO T/P195/11, Holman [p.61].
22. BL Add MS 5836, Cole, folio 13 recto.
23. BL Add MS 5836, Cole, folio 13 recto.
24. ERO T/P 195/11, Holman [p.61].
25. ERO T/P 195/11, Holman [p.60].
26. ERO T/P 195/11, Holman [p.60].
27. ERO D/ACA 22, 16.01215, Archdeaconry of Colchester Act Book 22, We 26/5/1596 (Macfarlane 1980).
28. LPL, ICBS File No. 1918.
29. LPL, ICBS File No. 1918. Unfortunately, King's drawing of 1653 does not show the north aspect of the church: therefore if the vestry was on the north side of the chancel it did not feature in his sketch.
30. ERO T/P 195/11, Holman [p.61-2]. Escutcheons were shields for armorial bearings made of stone which formed the top of the arch of a window tracery (Pevsner 1964, 450 and 470).
31. BL Add MS 5836, Cole, folio 22 recto.
32. BL Add MS 5836, Cole, folio 22 recto. I have retained Cole's use of the symbol '+' to indicate 'and'.
33. BL Add MS 5836, Cole, folio 22 recto. The plastered ceiling recorded by Cole was erected after 1729 as the ERO D/ACV 15,1.01870, Archdeaconry of Colchester Act Book 15 for Tu 8/7/1729 recorded that 'the church wants a ceiling for the convenience of the parishioners' (Macfarlane 1980). This ceiling had been removed by 1864.
34. This figure is based on the surviving burial registers for Earls Colne which commenced in 1559 and are continuous through to 1750, with only a 21-year gap between 1589-1609. All entries that referred to burials in the Quaker burial ground, or burials in other parishes have been excluded. Also at least 114 burials appear in Josselin's diary but due to the difficulty in determining whether they were all from Earls Colne they have not been included either.
35. For a detailed analysis of burial nominations in Earls Colne between 1490 and 1750, see Ann Dolina MacKinnon (1994) 'According to the custom of the place I now live in': Life and Land in 17th-century Earls Colne, Essex', Ph. D. thesis, University of Melbourne, Chapter 2. A copy of this thesis is held at the ERO, Chelmsford.
36. The 19 surviving monuments are: Fig. 3, Nos 1, 2, 4, 5, 6, 9, 10, 12, 22, 24, in the church at Earls Colne: Fig. 3, Nos 11, 18, 19 now located at Bures in Suffolk; and Fig. 4, Nos 1-6 in the church yard at Earls Colne.
37. Public Record Office (hereafter PRO) PROB 11/8/144, 23.00005, Jeffrey Bukwell, 1490 and PRO PROB 11/101/302-3v, 33.00510, Roger Harlakenden, 1602/3 (Macfarlane 1980).
38. PRO PROB 11/8/44, 24.00005, Jeffrey Bukwell, 1490 (Macfarlane 1980).
39. Cole lists an 'old grey marble ... smaller [than the others in the south aisle] and sans inscription' at the east end of the aisle, BL Add MS 5836, Cole, folio 26 recto.
40. PRO PROB 11/101/302-3v, 33.00510, Roger Harlakenden, 1602/3 (Macfarlane 1980).
41. There is no record of the maker or the cost of the monument.
42. BL Add MS 5836, Cole, folio 15 recto.
43. ERO D/DPr 453, anonymous 18th-century account which described the Harlakenden monument of 1602, the Androwes monument of 1729 and the Bidolph monument of 1726.
44. See MacKinnon (1994), 'According to the custom of the place I now live in', Appendix 2.1: Inscriptions on monuments in St. Andrew's church, Earls Colne, *c.* 1490-1750, nos 22-29 for transcriptions of the monuments of members of the Cressener family buried in the church. Photographs of Fig. 3, Monuments Nos 1, 9, 12 and 24 appear in Chapter 2 of the thesis.
45. ERO T/P 195/11, Holman (pp.62-5]; BL Add MS 5836, Cole, folios 22 recto, 25 recto – 26 recto. See MacKinnon (1994) 'According to the custom of the place I now live in', Appendix 2.1: Inscriptions on monuments in St. Andrew's church, Earls Colne, *c.* 1490-1750, no. 22.
46. Guildhall Library (hereafter GL), MS 9532/1, Diocese of London Vicar General's Book 1685-1704, folio 201 recto, 26 March 1702. GL MS 9657/4, 3.00439 and 3.00462, Visitation records application by the vicar and churchwardens for John Cressener to erect a family vault, Sa 18/10/1701 and Tu 16/12/1701 (Macfarlane 1980).
47. GL MS 9532/1, Diocese of London Vicar General's Book 1685-1704, folio 201 recto, 26 March 1702.
48. GL MS 9532/1, Diocese of London Vicar General's Book 1685-1704, folio 201 verso, 26 March 1702.
49. ERO T/P 195/11, Holman [p.64].
50. BL Add MS 5836, Cole, folio 22 recto.
51. BL Add MS 5836, Cole, folio 22 recto.
52. BL Add MS 5836, Cole, folio 22 recto.
53. ERO T/Z 151/6/C55, 'Monumental Inscriptions St Andrews Earls Colne', copied by members of the Essex Society for Family History 1977-8. Canon Basil F.R.Clarke in his manuscript notebooks now held at the Library of the Council for the Care of Churches, states that the monument was made by Christopher Horsnaile Senior (p.81). Clarke also mentions that a monument erected to the memory of John Wale (b.1700 – d.1761), a descendant of the Harlakendens and Eldreds, was made by the famous sculptor Louis Francois Roubiliac (1695-1762), who was especially well known for his monumental sculptures (Foster 1981, 221).
54. According to Phillip Buck, in 'Recollections of Earls Colne No. V: Sunday School and Church', *East Essex and Halstead Times* (hereafter *EE&HT*) 1903, 14 Feb., 8, after the addition of the south gallery in 1838, the Cressener monument was moved to the north wall of the nave near the gallery over the nave. The

monument is now on the west wall of the south aisle.

55. See MacKinnon (1994) 'According to the custom of the place I now live in', Appendix 2.1: Inscriptions on monuments in St. Andrew's church, Earls Colne *c.* 1490-1750.
56. BL Add MS 5836, Cole, folio 20 recto.
57. ERO D/P209/1/3, 83.02005, Burial Register for Earls Colne, Ann Eldred wife of John of Stanway, We 10/4/1678 and ERO D/P209/1/3, 84.00824, Burial Register for Earls Colne, John Eldred senior of Stanway, We 29/11/1682 (Macfarlane 1980).
58. See MacKinnon (1994) 'According to the custom of the place I now live in', Appendix 2.1: Inscriptions on monuments in St. Andrew's church, Earls Colne *c.* 1490-1750, for the transcription made by Cole in 1746 of the inscription of the Eldred monument of 1682. ERO T/Z 151/6, 'Monumental Inscriptions', c60.
59. ERO D/DPr 453, 18th-century description of monuments, and ERO T/Z 151/6, 'Monumental Inscriptions', c59.
60. BL Add MS 5836, Cole, folios 29 verso – 32 recto.
61. BL Add MS 5836, Cole, folios 29 verso – 32 recto.
62. BL Add MS 5836, Cole, folios 29 verso – 32 recto. Pevsner (1964, 164) states that the monuments were then transferred to Bures in Suffolk.
63. BL Add MS 5836, Cole, folio 27 recto.
64. ERO D/DSm P1, Israel Amyce's map of Earls Colne 1598.
65. The only reference to a monument in the churchyard was made by Cole who referred to John Eldred's (b.1705 – d.1738), which stands in the churchyard. See St. Andrew's churchyard *c.* 1598-1866, no.4 for Eldred monument.
66. ERO T/Z 151/6/1, 'Monumental Inscriptions', 222.
67. ERO T/Z 151/6/1, 'Monumental Inscriptions', 8.
68. BL Add MS 5836, Cole, folio 20 recto.
69. John Newton had erected a pew according to his right as occupant of a house at Claypit Green. See St. Andrew's church seating *c.* 1590-1835, no. 5.
70. The account of the pew built by Edward Elliston in 1636 gives no details of its location. ERO D/ACA 51, 20.01875, Archdeaconry of Colchester Act Book 51, 5 April 1636 (Macfarlane 1980).
71. London Record Office, DL/C/618, 21.00228, Consistory Court of London, 27 March 1605 (Macfarlane 1980).
72. ERO T/P 195/11, Holman [p.67].
73. BL Add MS 5836, Cole, folio 21 recto.
74. ERO D/DHt T73/41, 282.00005, [In Latin; transcription in English] Deed for Hay House Pew, 4 October 1687 (Macfarlane 1980).
75. ERO D/DHt T73/41, 282.00005, Deed for Hay House Pew, 4 October 1687 (Macfarlane 1980).
76. ERO D/DHt T73/41, 282.00005, Deed for Hay House Pew, 4 October 1687 (Macfarlane 1980).
77. ERO D/DHt T73/41, 282.00005, Deed for Hay House Pew, 4 October 1687 (Macfarlane 1980).
78. ERO D/P209, 4.00090, Earls Colne Parish Register, Miscellaneous, 1-31 December 1725 (Macfarlane 1980).
79. ERO D/P209, 4.00090, Earls Colne Parish Register, Miscellaneous, 1-31 December 1725 (Macfarlane 1980).
80. ERO D/P209, 4.00110, Earls Colne Parish Register, Miscellaneous, 25 September 1726 (Macfarlane 1980).
81. ERO D/P209, 4.00110, Earls Colne Parish Register, Miscellaneous, 25 September 1726 (Macfarlane 1980).
82. ERO D/P209, 4.00152, Earls Colne Parish Register, Miscellaneous 1579-1839, 13 November 1726, and ERO D/P209, 4.00185, Earls Colne Parish Register, Miscellaneous, 27 November 1726 (Macfarlane 1980).
83. ERO D/P209, 4.00152, Earls Colne Parish Register, Miscellaneous 1579-1839, 13 November 1726, and ERO D/P209, 4.00185, Earls Colne Parish Register, Miscellaneous, 27 November 1726 (Macfarlane 1980).
84. ERO D/P209, 4.00148, Earls Colne Parish Register, Miscellaneous, 10 April 1839 (Macfarlane 1980).
85. ERO D/P209, 4.00148, Earls Colne Parish Register, Miscellaneous, 10 April 1839 (Macfarlane 1980).
86. LPL, ICBS File No. 2335, Application of 1838.
87. LPL, ICBS File No. 1918, Application form 2 November 1835.
88. LPL, ICBS File No. 1918, Application form 2 November 1835.
89. LPL, ICBS File No. 1918, Application form 2 November 1835. Phillip Buck, *EE&HT* 1903, 8, 14 February, mentioned that the new gallery was used to seat the girls, while the boys sat in the old gallery.
90. *EE&HT* 1903, 8, 14 February.
91. LPL, ICBS File No. 1918, Application of 1835: No. 2335, Application of 1838: No. 6048, Application of *c.* 1861-4.
92. ERO D/AZ 7/1 Extracts from Parochial Visitations – Church Notes for Essex, by A.Clarke, February 1913, Vol. a, Churches in the Archdeaconry of Colchester (alphabetically) for the period [1858]1859-1901 Abberton to Hatfield Peverel. Two page numbers appear on this page: I quote both – p.73 and 146.

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Work of the Essex County Council Archaeology Section, 1996

Edited by Alison Bennett

This annual report enables the Section to publish notes on a number of watching briefs and chance finds made during the year. Summaries of larger excavations, evaluations and intensive watching briefs can be found elsewhere in this volume (p. 205-27).

Reports are arranged in chronological order or, in the case of multi-period sites, under the principal period represented. The Section is grateful to all who have undertaken work on its behalf, especially those museums and individuals who have allowed finds to be published here. The illustrations are by the following: Roger Massey-Ryan (Figs 1, 3, 6, 7, 8, 9 and 11), Nick Nethercoat (Figs 2, 4 and 10), Stewart MacNeil (Fig. 5), and Alison Bennett (Fig. 12).

Full details of all sites can be found in the County Sites and Monuments Record (SMR).

Prehistoric

Bradwell-on-Sea (PRN 13627 – 13788)
David Strachan

Throughout February 1996, storms and wave action scoured away large areas of sand and shingle from this inter-tidal area, revealing old land-surfaces and various areas of timber stakes. Roughly rectangular organic features measured between 2-5m long and 1-3m wide. A sample was identified by Peter Murphy as a detritus mud, formed from drifted debris from an estuarine reedswamp, which had eroded in a rectilinear pattern. Areas of Lower Peat were also visible.

Numerous areas of occasional timber posts included three V-shaped post-defined features. These are situated close to the sea-wall and are probably the remains of former wharves.

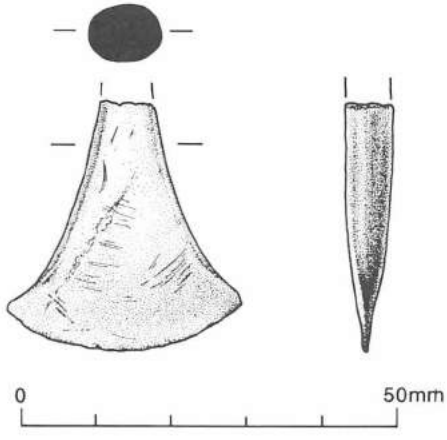


Fig. 1 Tanged chisel/leatherworking knife from Clavering

Clavering (PRN 17410)
Nigel Brown

A small copper-alloy blade of a tanged chisel or leatherworking knife (Fig. 1) recovered by metal detector was loaned to the Archaeology Section for recording. It weighs 15g, the surviving length is 33mm, and the tang is broken off. The faces slope smoothly to the widely expanded cutting edge, and the sides are concave and rounded in profile. The surfaces are covered with smooth green patina with some slight corrosion pitting. The faces have recent scratches, with some finer striations of ancient origin showing through the patina. There is some slight recent damage to the blade edge.

Such tools were traditionally described as chisels, but are now more generally regarded as leatherworking knives (Roth 1974). They commonly occur in Late Bronze Age contexts, but have a long ancestry in the earlier Bronze Age (O'Connor 1980, 175). The present example is broken below the stop, making classification difficult. The blade belongs in Burgess *et al.*'s (1972) form 3. The pattern of fine striations on the blade is similar to those on a tanged chisel/leatherworking knife from Sheering (Brown and Bartlett 1992) and it seems reasonable to suppose that they reflect the use of these objects.

Whilst metalwork does not commonly occur on Late Bronze Age settlement sites, small items are sometimes found, and tanged chisels/leatherworking knives are relatively frequent in such contexts (O'Connor 1980, 175). It is therefore uncertain whether the Clavering example derives from a settlement or a dispersed hoard. The findspot overlooking the valley of the upper reaches of the River Stort further augments the growing body of Late Bronze Age evidence from the Lea/Stort river system of west Essex (eg. Brown and Bartlett 1990, 1992). A linear distribution of metalwork finds along this river system was originally noted by Couchman (1980). Although set-

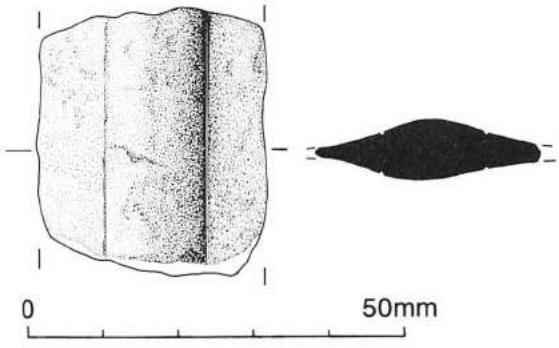


Fig. 2 Late Bronze Age sword fragment from Little Baddow.

tlement evidence is largely lacking, it appears likely that this river system was as densely occupied in the Late Bronze Age as the Thames and Chelmer/Blackwater are now known to be (Brown 1996).

Little Baddow, Retreat Farm (PRN 17411)
Nigel Brown

A fragment of Late Bronze Age sword (wt 30g) was recovered by metal detector and reported to Chelmsford Museum, who passed the object to the Archaeology Section for recording (Fig. 2). The edges of the blade are damaged, one side severely so, with a large part of the blade wing missing. Both faces are pitted with corrosion and smooth green patina only survives in patches. The degree of damage may indicate that the piece had been in the ploughsoil for some time. There is a prominent rounded midrib which curves down to the blade wings and is defined by grooves. This form is typical of Carps Tongue, class B, swords (Needham 1986). The surviving characteristics of the blade would be appropriate to Needham's (1986) variant 2.

The object is of some interest: over the past 15 years discoveries of metalwork in the Chelmer Valley/Blackwater estuary have largely bridged the apparent gaps in the distribution of particular metal types, mapped by O'Connor (1980) between concentrations along the Thames and in north-east Essex/south-east Suffolk. Carps Tongue swords have remained absent, and this has led to the recent suggestion that this may reflect a genuine gap in the distribution of these distinctive items (Brown 1996, 30). The recovery of a Carps Tongue sword fragment from Little Baddow seems to indicate that their absence hitherto was fortuitous.

Roman

Wakes Colne, Lane Farm (PRN 17412 –17414)
Owen Bedwin

Existence of a site was indicated by various metal finds, mostly recovered by a local detectorist. These finds were all bronze, including: 30 to 40 coins, of 1st- to 4th-century date; at least five bow brooches, in various stages of completeness; a plain finger ring; part of a finger ring with an oval (empty) bezel; part of a plain bracelet; some lengths of wire; and two small lion-headed terminals, c. 1cm across.

Pottery finds (identified by Scott Martin) included: central Gaulish samian; Spanish amphora fragments; a piece of mortarium rim; fine wares (one with barbotine decoration); and sandy grey wares. There was also a little tile, and a few sherds of medieval and post-medieval pottery (identified by Hilary Major and Helen Walker).

Walking over the site revealed that the finds all came from a flattish area at the edge of a steep drop to the west down to Pardon Brook. Although now well drained, the area of the brook was formerly very marshy with reed beds. No metal finds had been made from the valley bottom or on the slope.

Saxon

Arkesden and Little Walden
(PRNs 17415 – 17416)
Susan Tyler

Amongst a group of artefacts recovered by a metal detectorist, are three which belong to the period AD 800-1000 (Fig. 3). These are of particular interest as few finds of this date are known from the county. Nos 1 and 2 were found together raising the possibility that they derive from a Late Saxon settlement.

1. *Decorative mount* Copper-alloy mount, complete with four rivets (two at either end); one rivet has a circular piece of gilt copper alloy attached. Traces of silvering survive on the upper surface of the mount. The decoration is of intricate interlace, partly openwork, comprising an interlaced animal (or possibly two animals) or serpent-like appearance, its open jaws biting a section of its ribbon-like body. The upper surface is in rather poor condition rendering the exact interpretation of the design impossible. Length: 49mm. Max. width: 23mm. Max. thickness (at middle) 7mm. Length of rivets: 8mm (2.5mm projecting from undersurface).

2. *Rim sherd* Everted, from a fairly large vessel. Soft, friable fabric with abundant fossiliferous crushed shell which is similar to St. Neots-type wares. Surfaces orange-brown with a soapy feel. Core grey. The sherd has been stabbed from the outside and the perforations penetrate right through the pot wall. Wt.6g.

3. *Strap-end* Copper alloy. Terminal of simple oval

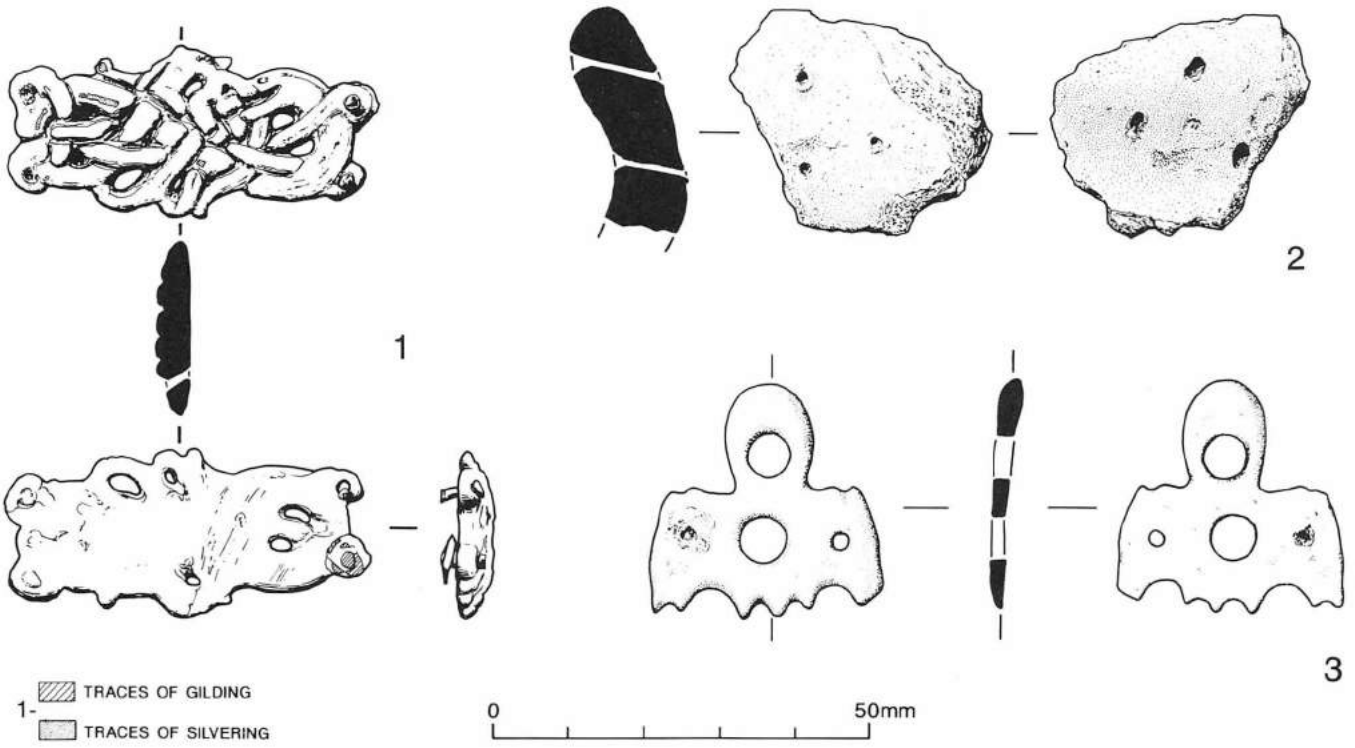


Fig. 3 Late Saxon objects from Arkesden and Little Walden.

design; other end serrated. Two rivet-holes present, traces of an iron rivet in one. Length: 31mm. Width: 30mm. Thickness: 3mm. In good condition.

Discussion

The impact of the Vikings in Essex has recently been discussed by Rippon (1996, 122-3) and he points out that the presence of exchangeable artefacts of Viking origin need not imply a Viking settlement. However, it is worth noting that in a county with few Viking artefacts, several come from the north-west, notably from Saffron Walden (Bassett 1982, 13) and Wicken Bonhunt (Musty *et al.* 1973, 289)

The Arkesden mount (Fig. 3, no. 1) is most probably of Viking manufacture. The sinuous interlace of the animal (?serpent) on the decorative mount from Arkesden is superficially reminiscent of the late ninth century Jellinge style; however, the various elements that typically characterise this style: a fold in the animal's upper lip, pigtails and spiral hipjoints are not obvious on the Arkesden mount; indeed the plain ribbon-like interlace terminating in a head with open jaws, biting its own body can be more accurately described as a derivative of Style III and thus date to a slightly earlier period: early to mid ninth century (Foote and Wilson 1970, 287). The mount was evidently attached to a prestigious object (as evidenced by the gilding on the copper alloy attached to one of the two remaining rivets), however its identity must remain conjectural; it may perhaps have been a decorative fitting on a casket or sword scabbard.

Found in close association with the mount is a small rim sherd (Fig. 3, no. 2) which may well be contemporary; its fabric is similar to St. Neots-type wares found on mid-to late Saxon settlement sites in the county such as that at Springfield Lyons (Walker 1987, 28-9). The stabbed perforations are an unusual feature of the sherd and suggest a specialised use; perhaps as a strainer.

The strap-end found in Little Walden (Fig. 3, no. 3) belongs to the same period as the other two objects and can be seen as further evidence of a major presence in the area at this time.

Maldon, Victoria Road (PRN 17417)

Hilary Major

A spindle whorl (Fig. 4) found in a front garden in Victoria Rd, Maldon, was kindly lent for study by the owner. It is plano-convex, and made from hard chalk, now with a pale brown patina, and has ancient damage to one side. The surfaces have crudely drawn incised decoration, comprising two irregular concentric lines on the base and an irregular concentric line on the top with subtended diagonal slashes. It weighs 26g, with an original weight of *c.* 30g. The weight is towards the upper limit for spindle whorls, and this was presumably used for spinning rather coarse thread. It's height is 17mm, and diameter is 39mm.

This object is certainly medieval (including Saxon

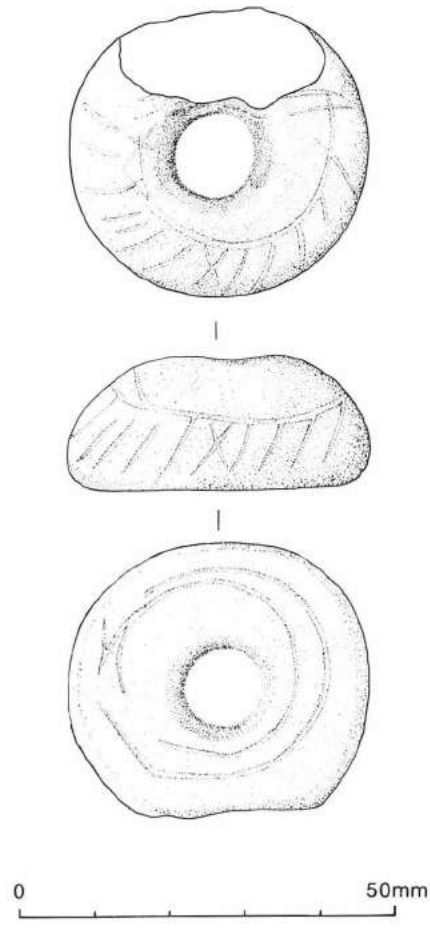


Fig. 4 Medieval spindle whorl from Maldon.

within this period), but is difficult to date more closely. Hard chalk or clunch was a favoured material for medieval spindle whorls, occurring in at least small quantities in most large assemblages of medieval whorls across the country (e.g. at Winchester (Woodland 1990), with 63 out of the 136 spindle whorls in 'hard chalk'). The form of medieval spindle whorls is very variable, and the shape or decoration alone would not confirm this example as medieval; however, the use of 'hard chalk' does seem to be almost exclusively medieval. The find spot is just outside the area of the medieval town, and it was presumably deposited as rubbish, probably after it was damaged.

Decoration of spindle whorls is not uncommon in the Middle Ages, but the motifs are variable, and of little use for dating purposes. Some motifs are commoner than others, generally the simpler ones following the shape of the whorl. Concentric circles on the base occur on a number of examples from Winchester (*op cit*, 221), although not as carelessly executed as on this example. A rounded biconical whorl in fine sandstone from Stansted (site DCS87, Major in prep) has a circumferential line with subtended lines each side; this latter whorl is probably 11th-12th century in date. There are a number of decorated hemispherical chalk whorls from Lincoln, which are broadly similar to the Maldon one (Mann 1982, fig. 22, nos. 192-195), dated to the 10th and 11th centuries, and also close in decorative scheme to the present example is a fired clay spindle whorl from Colchester, with incised lines made prior to firing (Crummy 1988, 31, no. 1925). The latter is from the topsoil, but was reportedly associated with 6th-7th century pottery. An early Saxon date for the Maldon whorl seems unlikely because of the use of chalk (baked clay seems to have been the predominant material in this area at that date), but it is possible that it is pre-Norman, and could be associated with the *burh*. However, a later date cannot be ruled out.

Medieval

Castle Hedingham, Trinity Cottage, Sheepcote Road (PRN 17211)
Richard Havis

A watching brief on a proposed extension to the rear of this property revealed that a steep bank had been lowered by *c.* 1.5m to form a level surface for the extension. Archaeological evidence consisted of one edge of a linear feature running parallel to the bank. This is interpreted as the ditch of the outer town defences. Two sherds of pottery were recovered, one being a rim sherd of an early to mid 13th-century cooking pot.

Pleshey, Hill House, Back Lane (PRN 16967)
Sarah Gibson

A watching brief was carried out during groundworks for extensions to this property. Excavation of the westernmost foundation trench revealed the remains of a flint rubble wall foundation, aligned north-south. The top of this foundation was 0.34m below ground level; the flints were of various sizes, and bonded with a sand and lime mortar. The remains measured 0.45m high, 1.10m wide, and 3.00m long (the length of the trench). The foundations of the existing house were partly founded on the flint wall foundation, and it is most likely that the remains extend further to the south and north of the excavated trench. The width of the wall and its location suggest that this was the eastern external wall of the church of St Mary's, thought to be largely located in the field adjacent to the property.

Another wall foundation was recorded in the main east-west trench for the extension. This was also flint bonded with mortar, but was 0.40m deep and 0.40m wide. It is possible that this is part of a churchyard structure; a small external chapel, or ossuary, perhaps.

During the course of the watching brief *c.* 6 *in situ* inhumations were discovered, in addition to a severely disturbed disarticulated human skeleton. This latter was located in overburden adjacent to the church wall foundation. It is probable that it was discovered during

construction of the original house during the 1950s and hastily reburied in a hole prior to a patio being laid. The owner has found a pewter chalice near to the location of this skeleton. This chalice was identified by a metallurgical society as probably being of medieval date, and supposedly a priest's chalice, possibly associated with a priest's burial.

St Mary's church had a relatively short life, being established in the 12th century and replaced by the church of Holy Trinity in the 1400s. The presence of burials 1.20m below ground, with no later intercutting graves, suggests that the churchyard, too, had limited use.

Post-medieval

Bocking, Bradford Street (PRN 17418)
Helen Walker

This complete post-medieval red earthenware vessel (Fig. 5) was found buried beneath the floor in a house in Bradford Street, Bocking, and was kindly lent by the owners for study. It was discovered during the relaying of the floor in a rear room, the existing oak floor having rotted due to being laid directly onto earth. The interior of the room was excavated to some depth to enable the new floor to be constructed, and the pot was found at a depth of *c.* 45cm, just inside the external door. The oak floor may have been original to the room, which was probably a 16th or early 17th-century extension to an earlier building.

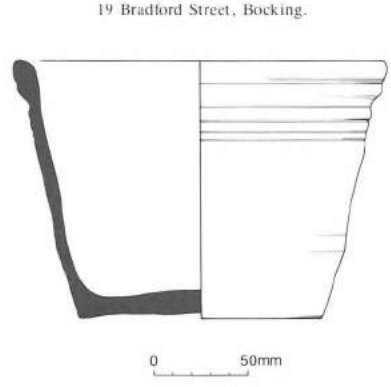


Fig. 5 Post-medieval earthenware vessel from Bocking.

It has an all-over apparent greeny-brown glaze, which shows occasional brown flecks perhaps due to iron impurities in the clay. The glaze has missed in some places especially just above the base on the external surface. Rather unusually, the underside of the base is also glazed, although this may be accidental. The vessel shows a grooved beaded rim accompanied by rilling and incised horizontal lines just below the rim. There are no signs of sooting deposits, fire-blackening or other traces of use on the vessel.

Most post-medieval red earthenware vessels are utilitarian, used for the storage, preparation and cooking of food, and for other household purposes. For this reason vessel forms tend to be long-lived and can be difficult to date. Vessels of similar size and shape to the Bradford Street example were part of the repertoire of the well-studied Surrey-Hampshire white ware industry and are classified as 'deep bowls type 3' (Pearce 1992, 113-4) datable to the 17th century, perhaps the mid to late-17th century. Again, examples in Surrey-Hampshire white ware never show signs of heating which would indicate this type of vessel was not for use on the hearth. The rilling beneath the rim on this type of vessel may have been to aid grip, although the user could have just as easily picked up the vessel by its base. The grooved bead may have also been functional, providing a convenient groove around which to tie a cloth lid, in the manner of modern-day steam puddings.

The Bradford Street vessel shows the typical red-orange Essex fabric and its origin is probably local. The grooved beaded rim is characteristic of vessels produced at the village of Stock to the south of Chelmsford (Cunningham 1985, fig.50.6) but similar wares were also made at Harlow (as both potteries were owned by the same family). It could also have been made at Gestingthorpe, in north Essex, the nearest production centre to Braintree.

The vessel is complete, but was found broken into several fragments. Some of the breaks are fresh, no doubt made during discovery, but others are old, weathered breaks showing the vessel was originally broken in antiquity. It may have been broken at or before deposition, or it may have been placed there whole and broken subsequently, which means it could be an example of a ritual deposit. This is where vessels were deliberately buried in, or under buildings, for luck or to collect evil spirits, a practice common in the Netherlands but rare in this country (Merrifield 1987, 199-221). However a possible example of a ritual deposit was found at nearby Rayne, where a complete 17th century-type costrel (a container for drink) was found buried upside-down, a common feature of ritual burials (Clarke and Walker 1986, 151).

Orsett, 25-31 High Road (PRN 17419 – 17420)
Rob Butler

A watching brief was undertaken during construction work for a four-bedroom detached dwelling and triple car garage immediately south-east of the Church Hall. The site generally contained a dark brown sandy loam garden soil, 250mm deep, with occasional ash and charcoal lenses. Large amounts of bone, glass, charcoal flecks and modern and late post-medieval brick, tile and clay pipe fragments were evident throughout the soil profile. The garden soil also contained common amounts of 19th-century pottery. This layer sealed a mid-dark brown sandy clay loam, 320mm-380mm deep, with occasional glass, bone, slag, charcoal flecks, iron nails, brick fragments and three sherds of 16th to

17th-century pottery. The layer gradually merged with a post-medieval U-shaped ditch, 1.20m wide, 600mm deep, comprising mid-dark grey brown sandy clay loam with frequent charcoal flecks, occasional brick fragments and two sherds of 15th to 16th-century pottery; the ditch butt-ended 1.0m east within the footprint of the building. This ditch cut, but was aligned parallel with an earlier mid-light brown sandy clay filled gully, 400mm wide, 220mm deep. The gully cut two quarry pits, approximately 1.10m-1.50m wide, 1.20m deep, which contained a light grey-brown sandy fill, occasional charcoal flecks and animal bone fragments.

The late post-medieval ditch and gully probably represent the rear boundary divisions of post-medieval, and possible medieval, tenements aligned on the frontage of High Road. Their alignment suggests that the land division immediately to the east of the site appears to have changed relatively little. Although the two quarry pits were devoid of dating evidence, it is likely that this activity can be attributed to the medieval period. The quarrying is likely to have taken place on the fringes of tenements, and in the backland areas of the post-medieval and medieval village. This activity appears to have been haphazard and small scale.

Rochford, Millview Meadows (PRN 17421)
Shane Gould

A watching brief in advance of housing development identified a former pathway on the north side of the former police station. It is 19.6m long and 3.0 – 4.1m wide, bounded by a stone wall in lime mortar to the south and east, and truncated to the north and west. Beyond the wall the ground drops vertically 1 – 2m. The path's surface comprises bricks, stone and cement, the former being laid in different bonds (mostly stretcher) with lime and cement mortars. The surface is uneven and in places there is evidence of considerable wear; in some instances there are two courses of brick surfacing but to the west stock bricks are laid directly on brown gritty soil with pebble inclusions.

Rochford, 35 South Street (PRN 17422)
Shane Gould

A number of predominantly Victorian objects were recovered during extensive internal works to this Grade II Listed 18th-century timber framed building. These included a leather shoe, an iron key, a wooden pin, two slate pencils, a wooden toy, and glass dated *c.* 1800.

Wickham Bishops, Timber Trestle Railway Viaduct (PRN 8457)
Shane Gould

A watching brief was maintained during repair works to record features of interest; particular attention was paid to the earth-fast timber piles, 'baltic' timber marks (marks carved onto the wood whilst still in the Baltic ports before export), and carpenters marks.

No known pieces of wood were removed from the bridge that had 'baltic' timber carvings, and only one piece of graffiti was observed on the railway sleepers: the word THE. It was assumed that the original sleepers had been replaced. Several 'baltic' timber marks were observed on the main structure of the north bridge and photographically recorded. Carpenters marks came in a variety of forms including Roman numerals and English letters; these were used to marry up the timbers and many have been re-covered. Surprisingly few carpenters marks were observed on the south bridge and no 'baltic' marks.

The main feature of interest was the way in which the wooden piles were driven into the ground. On north span, trestle one, the spiked piles were driven through a below-ground wooden sill beam, but in most instances they went directly into the ground with a wooden strengthening plank bolted on either side. Two different methods of construction could be seen on south span, the end of one pile was made into a spike and another having been spiked was clad with iron strips. Both piles were driven over 2.5m below the surface.

Modern

Southend-on-Sea, Thorpe Bay Junior and Infants School (PRN 16687)
Shane Gould

This is a superb example of a 1931 brick-built school with concrete fenestration. Two stock brick air raid shelters were added at the east and west during World War II. Both are single storey with flat roofs. A porch gives access to two rectangular rooms, the roof being supported on brick piers. There are adjustable cast iron ventilators on the north and south walls to provide fresh air. To the north of both shelters is a single-storey square muster station where the children would have gathered before proceeding to the shelters. A third shelter stands to the north-east and appears to have housed a vehicle, presumably a fire tender. Terraced housing fronts the school apart from an art-deco dwelling immediately opposite the front gates. This was probably erected for the school master. The west shelter is to be demolished and has been photographically recorded.

Projects

Aerial Survey 1996
David Strachan

Objectives

The objectives for the year were to continue reconnais-

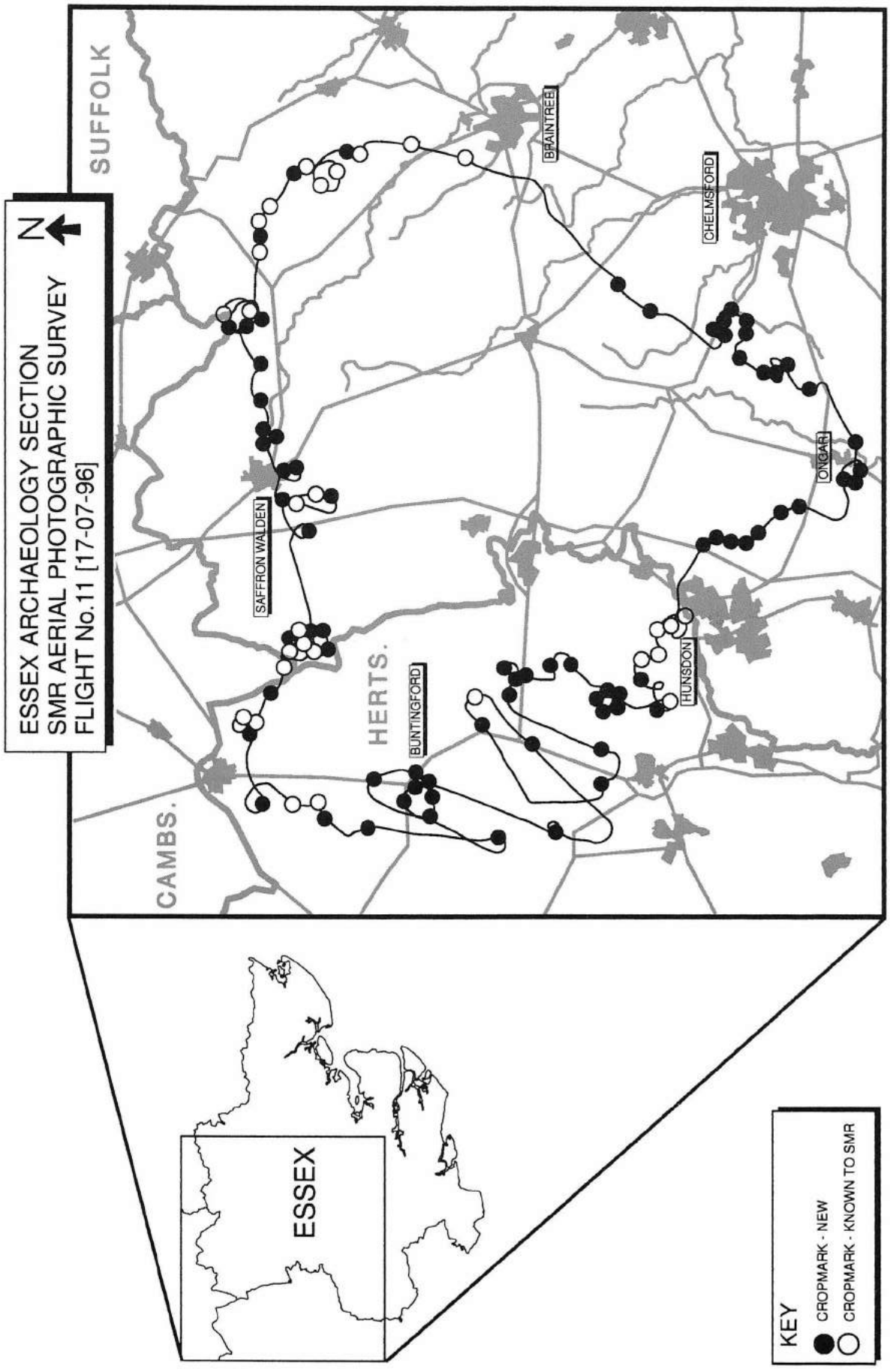


Fig. 6 GPS derived plot of flight 11. © Crown copyright 87584M.

sance with the primary aim of locating and recording new cropmark sites in the county, while developing reconnaissance in the coastal area, and the inter-tidal zone in particular. The RCHME also made additional funds available for reconnaissance in South Suffolk. The very dry winter and warm summer, as indicated by Soil Moisture Deficit (SMD) levels, resulted in good cropmark development from mid-June onwards. In addition, the assessment of the Global Positioning System (GPS) technology, as a navigation and recording tool, was also an objective.

GPS

Early in 1996, the Planning Department acquired a *Garmin 90* Global Positioning System for use during aerial reconnaissance. This is a satellite-based navigation system which can be used to record the path of a journey and individual positions *en route*. A composite map is produced after each flight showing both where cropmarks were recorded and where they were not recorded (Fig. 6). This digital positioning of sites photographed accelerates the post-reconnaissance process, allowing additional time to be spent on the initial study of the sites. Post-reconnaissance information (i.e. position, site status and form) can then be merged with the GPS plots in order to produce a composite plan of the entire year's survey. Patterns may be recognised which could affect the planning of flights in the next year. This has achieved more efficient use of the available funds and increased the results obtained from the survey. GPS derived plots can imported into CAD/CAM software for further analysis and interpretation and it is hoped that in the future that the plots will be imported straight onto the SMR in a Geographic Information System (GIS) environment. This would allow very rapid post-reconnaissance analysis and the storage of flight details as a layer of information which will be available for study as part of the SMR.

Inter-tidal zone and the coast

Plans were made for flights over various inter-tidal areas during the equinoctial spring tides in March, however, the weather (usually in the form of extreme overcast conditions) made photography unfeasible. As result, the only inter-tidal sites recorded were occasional wrecks, some of which were new to the SMR, fishtraps which were already known, and occasional other features. The coast, as far north as Orfordness, was flown to record terrestrial coastal sites (mainly Martello towers, although including some possible oyster pits and decoy ponds). A number of wreck sites were also located and recorded, indicating the need for a full inter-tidal aerial survey.

Cropmarks

The development of cropmarks was monitored throughout May and June, and although good cropmarks appeared on the gravels by early June, their appearance on the heavier soils did not occur until around mid-July. The Soil Moisture Deficit (SMD) data indicated that East Anglia had noticeably higher figures than the rest of England from June onwards. It is possible that this factor later resulted in such good cropmark definition in the area. Areas where particularly good results were observed were along the Stour River; the gravels to the north of the Blackwater estuary, the Chelmer Valley, and to the south and east of Ipswich. In addition, some areas of heavier soils, such as the dissected boulder clay plateau, produced good cropmark results. These were in the north-west of Essex, particularly around Saffron Walden; and around Ongar to the west of Chelmsford. Good cropmark formation was recorded in the river valleys of East Hertfordshire (between Braughing and Aston) and South Suffolk (notably to the south-west of Bury St. Edmunds).

Parchmarks

A high percentage of parchmarks, given the relative proportion of arable to pasture in the study area, were noticed over the summer. In many instances this was clearly the result of changing land-use, such as the removal of nurseries, the conversion of arable land to golf courses and other developments. For example, around Clacton-on-Sea, large prehistoric complexes were recorded on golf courses and playing fields. The most impressive parchmark recorded, however, was the Cistercian Abbey at Tilty (PRN 4699). Although the site was first recorded in 1949, and good parchmarks were recorded and studied in 1990 (Andrews and Gilman 1992), the outline recorded this summer was outstanding (Plate 1), and has revealed details of many new features and the possible outline of the previously unidentified guest house building. The site was excavated in 1901 and again in 1942, and comparison of the plans indicates that details of the building's structure, which were not recorded by the excavations, have appeared as parchmarks, notably the buttress features in the infirmary complex. The remaining upstanding sections of wall of this Scheduled monument were recorded in 1990 by the Archaeology Section, while a computer-rectified plot of the parchmarks recorded in that year was produced (Andrews and Gilman 1992). This year's photography has produced a more accurate plot, as the photographs were more vertical and low level, and also included the new features which appeared.

Soilmarks

A single flight targeted newly ploughed areas along the coast to locate redhills appearing as soil marks on areas of reclaimed marsh. The flight path was arranged to follow the known distribution pattern of redhills, which represents the prehistoric coastline. A total of 18 new

Plate 1 (opposite) Parchmarks at Tilty Abbey 1996. North is to the bottom (Photo D. Strachan)



redhills were recorded during this flight. Soilmarks of other site types are rare in Essex, and when they are recorded they often show little which can be readily identified.

Earthworks

As part of the continuing thematic survey, a flight recorded the historic Parks and Gardens listed in the *Register of Parks and Gardens of special historic interest in England*, produced by English Heritage (English Heritage 1995). The resulting records will be studied, and copies used in the field, by the newly established Essex Gardens Trust in their forthcoming survey of the sites.

Results

The distribution map that is compiled contains post-reconnaissance and GPS-derived data in order to assess the distribution of new and known sites recorded in the study area. The results clearly indicate areas where there is a high percentage of new sites recorded as cropmarks. In addition, the map also indicates areas which were not covered in 1996 and also areas which were covered and did not produce cropmarks. It is hoped that a composite picture, over a number of years, will emerge which, when studied, will give us a better understanding of the cropmark phenomena in the study area.

The success of the year's survey is indicated by the graphs in Figs 7 and 8, which show the relative proportions of sites recorded by form and site type over the year. Fig. 7 indicates that almost half of the cropmark sites recorded by the survey were not previously recorded on an SMR. In addition, it is also noticeable that a significant number of new sites of any form have also been recorded. These results clearly show that, in certain areas, a high percentage of cropmark sites which are recorded are new. It is therefore necessary to develop strategies which aim to continue reconnaissance in these areas.

Conclusions

It is evident that 1996 was a very good year for the formation of cropmarks, and funds have been channelled towards this area appropriately. In addition, the survey continues to discover and record non-cropmark sites throughout the survey area. There is a high potential, in certain areas, for the recording of cropmark sites which are new to the local SMRs. It is likely that these small pockets of land have received deficient aerial photographic study in the past. This may be due to their fringe position in the county, the fact that many occur on heavier soils which require very dry summers to produce differential crop growth, or because of aviation restrictions. In order to assess the validity of this data, however, it is crucial to resurvey these areas over a number of years. Another benefit of digitally recording flight paths and targets photographed via GPS, is that the information can be stored, in much the same format as the distribution map reproduced here, and eventually a composite picture showing the results of several years reconnaissance can be produced. This is important not only to record and study areas where cropmarks have shown, but also where they have not. When combined with the SMR in a GIS environment, this will allow a long term study and analysis of the phenomena cropmark formation in relation to geology, land-use, and meteorological variations over time and space within the study area.

Essex Mapping Project 1996

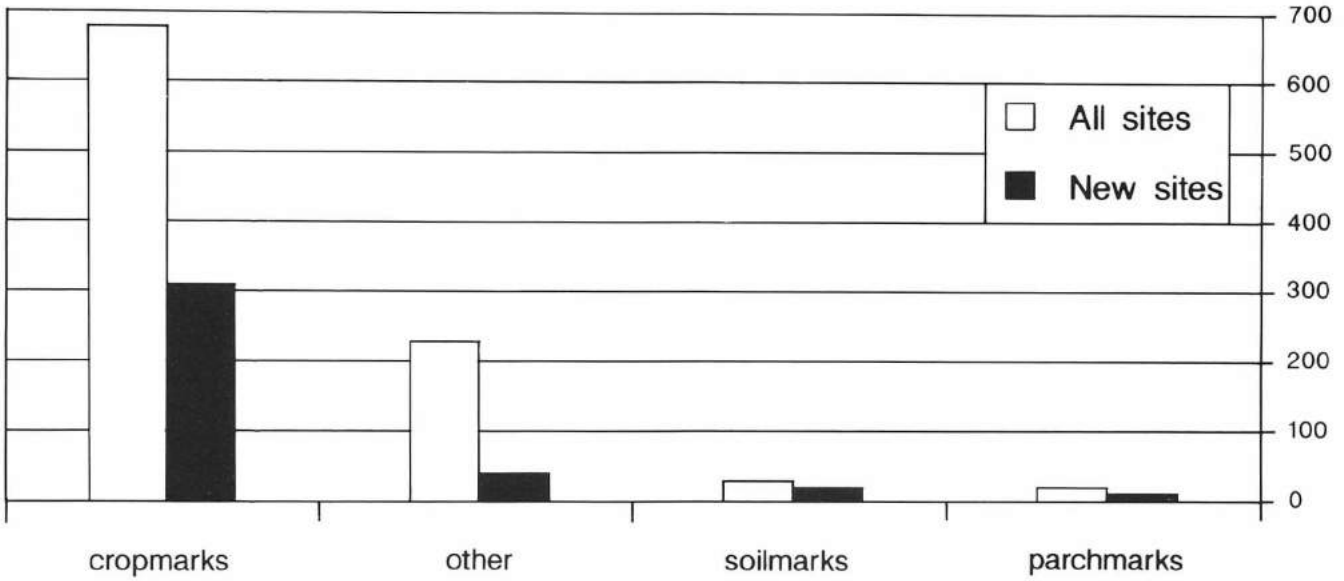
David Strachan and Caroline Ingle.

The Essex Mapping Project has continued work throughout 1996, as part of the RCHME's National Mapping Programme (NMP) (Ingle and Strachan 1994, 1995, and Strachan and Ingle 1996). The 20 sheets mapped in 1996 brings the total completed to 88 (Fig. 9). The number of records on the MORPH database now stands at 7275, with over 1500 individual records being added during the year. A total of 206 new sites have been added to the SMR over the year. Mapping of Blocks 8 and 9 (north of the Blackwater estuary) has been completed and progress is well under way on Block 10, which covers the central strip of Tendring to the south of the Stour estuary. The mapping of the Stour estuary in the first half of 1997 will complete NMP work along the coastal zone.

Geologically, much of this area is underlain by London Clay, Chalky Boulder Clay, sands, gravels, and brickearths. In addition, there are large areas of alluvium and coastal marshlands, which have been reclaimed since the medieval period for grazing marsh and cultivation, as well as inter-tidal saltmarsh and mudflats. As result of these diverse environments, a variety of different site types, appearing in different environments, and on different sources of photography, have been recorded.

Along the coast a variety of remains relating to the relatively recent exploitation of that environment have been plotted. This includes oyster cultivation which has for centuries been an important industry in the county, as indicated by Colchester's rights over the Colne, which may be traced back to the 11th century. By the end of the 19th century, the industry had seriously declined from its height of production in the mid-19th century, and it is from this period which most of the remains probably originate (Benham 1993). Traces survive in the form of the shallow pits, cut into the saltmarsh, in which oyster spat were grown. The distribution and concentration of these features, along with packing sheds and wrecks of working vessels provide evidence for the scale of exploitation in earlier centuries. Prior to the commencement of the Mapping Project, the pits and associated features had not been systematically recorded onto the SMR. During 1996, extensive evidence of the industry was noted, including large expanses of oyster pits at West Mersea and Brightlingsea Creek. The pits, which are usually rec-

tangular and between 5 and 15 metres in length, show both regular and haphazard arrangements along stretches of saltings and reflect operations by both individuals and commercial companies, such as the Colne Fishery Company. Some are recorded on contemporary maps (notably the OS 1st Edition 6-inch sheets), but many are not, and the industry is thus being shown to be more extensive than once thought. Many of these sites are plotted from the RAF photography of the 1940s and 1950s and have subsequently been lost through erosion of the salt marsh. A number of wrecks of working vessels were also noted for addition to the SMR; it is likely that many of these are also related to the oyster industry.



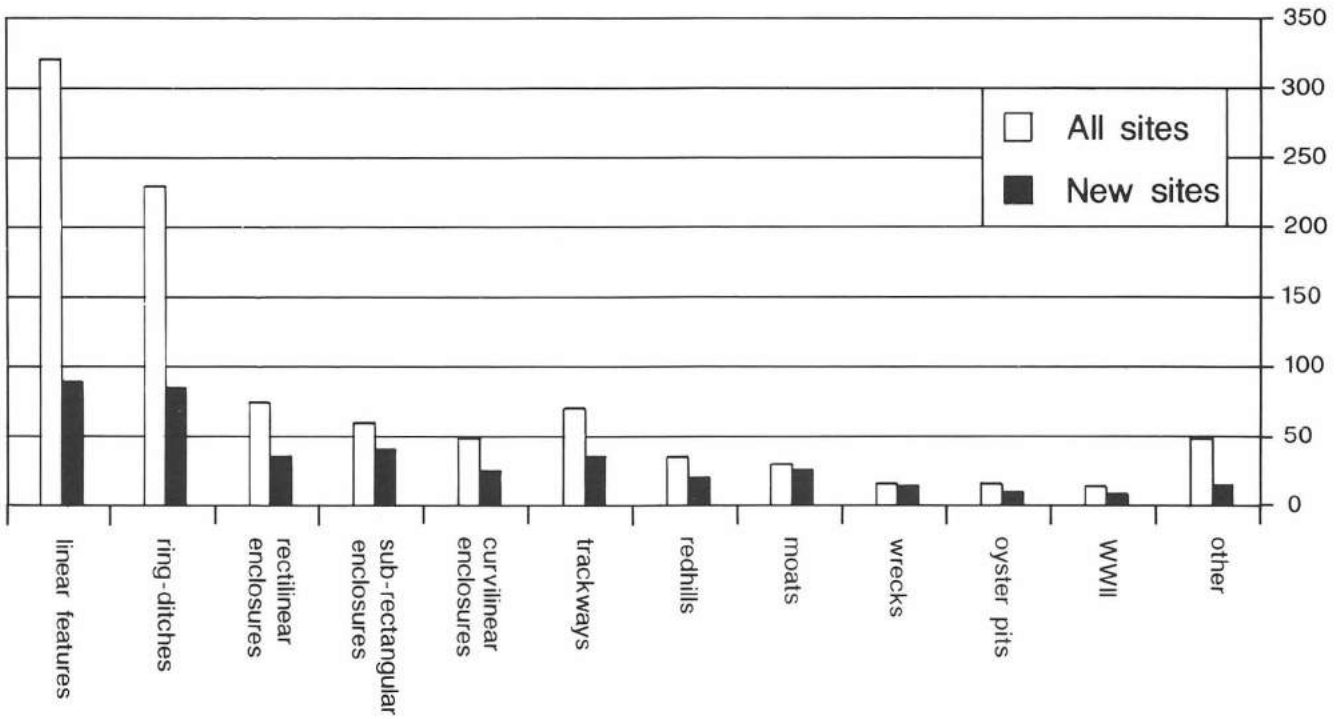


Fig. 7 (above) 1996 aerial photograph by form.
Fig. 8 (below) 1996 aerial photograph by type.

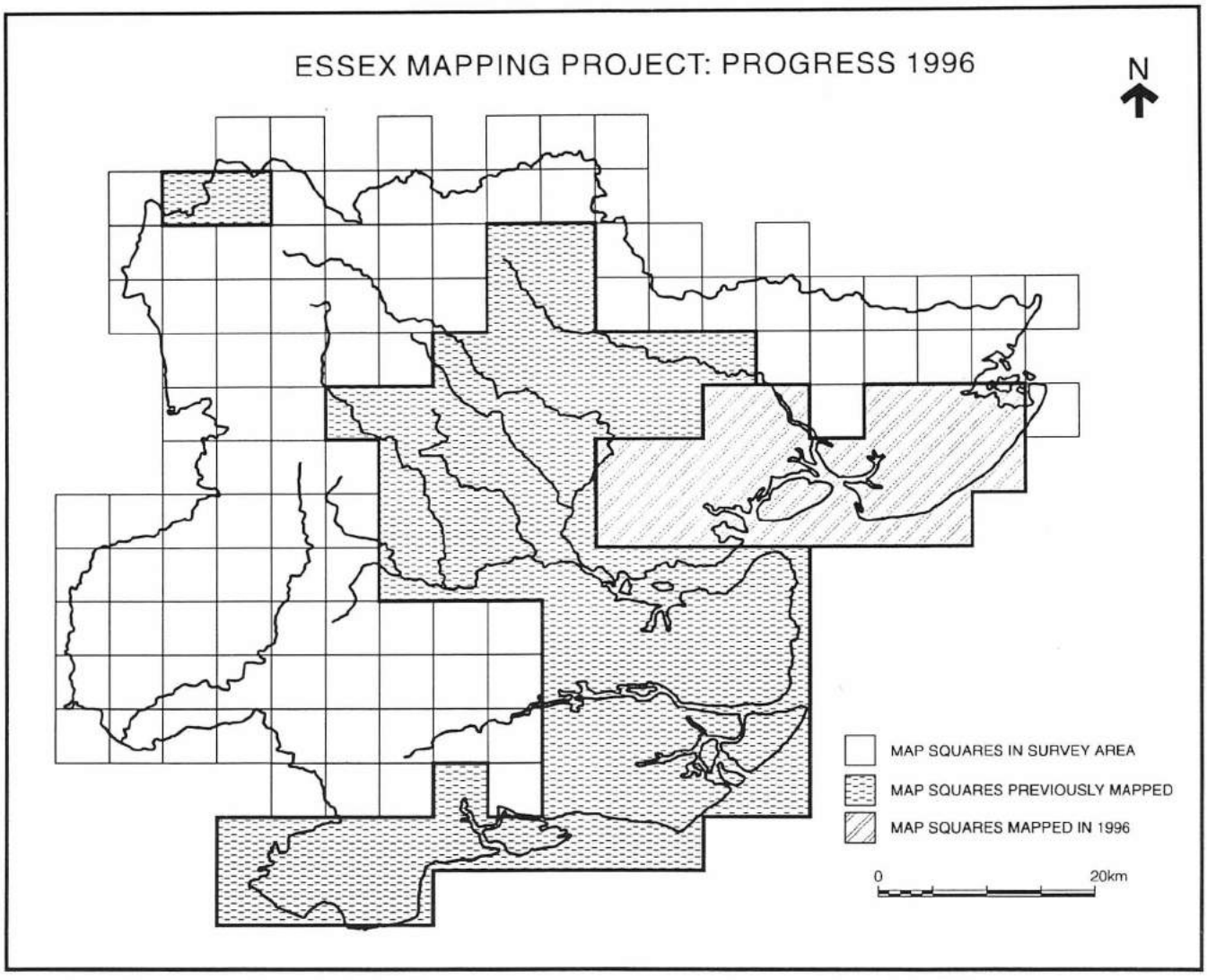


Fig. 9 Essex Mapping Project progress to date. © Crown copyright 87584M.

The majority of the Essex coast is now enclosed by sea-walls, but as with oyster pits, while some former stretches of wall are depicted cartographically, many do not appear on early maps. The early RAF photography is the most readily accessible form of evidence in many instances, as now disused sea walls still appear as earthworks or as soil marks. Whilst some of these are still extant as cropmarks on later photographs, many are now invisible from the air. The NMP offers a good opportunity to record these features quickly and at an appropriate scale to provide an overview of the sea defences, especially if combined with further cartographic research.

Decoy ponds have continued to be recorded along the coastal zone, with notable examples, including one new site, on Old Hall Marshes, Tollesbury. Further examples have been mapped along the Clacton coast and around Hamford Water. While most of these sites have been destroyed or infilled and converted to arable fields, they can be recorded from RAF photography from the 1940s and 1950s, when most survived as earthworks allowing additional detail to be noted. With most of the coastal zone now having been recorded by NMP, the morphological information for decoy ponds in the county, which may contain some insight into original date, is now available for further research (Fig. 10).

A number of red hill, or salt-production sites, have been recorded as soilmarks around the Peldon and Mersea areas (Strachan and Ingle 1996, fig. 2). The 1996 aerial survey programme continued to record new red hills for addition to the SMR, the use of colour photography in both 1995 and 1996 complementing the existing predominately black and white aerial photography. The addition of red hill sites to the known distribution continues to enhance our understanding of past salt-production in the county, adding concentrations to the distribution published at the start of the decade (Fawn *et al.* 1990).

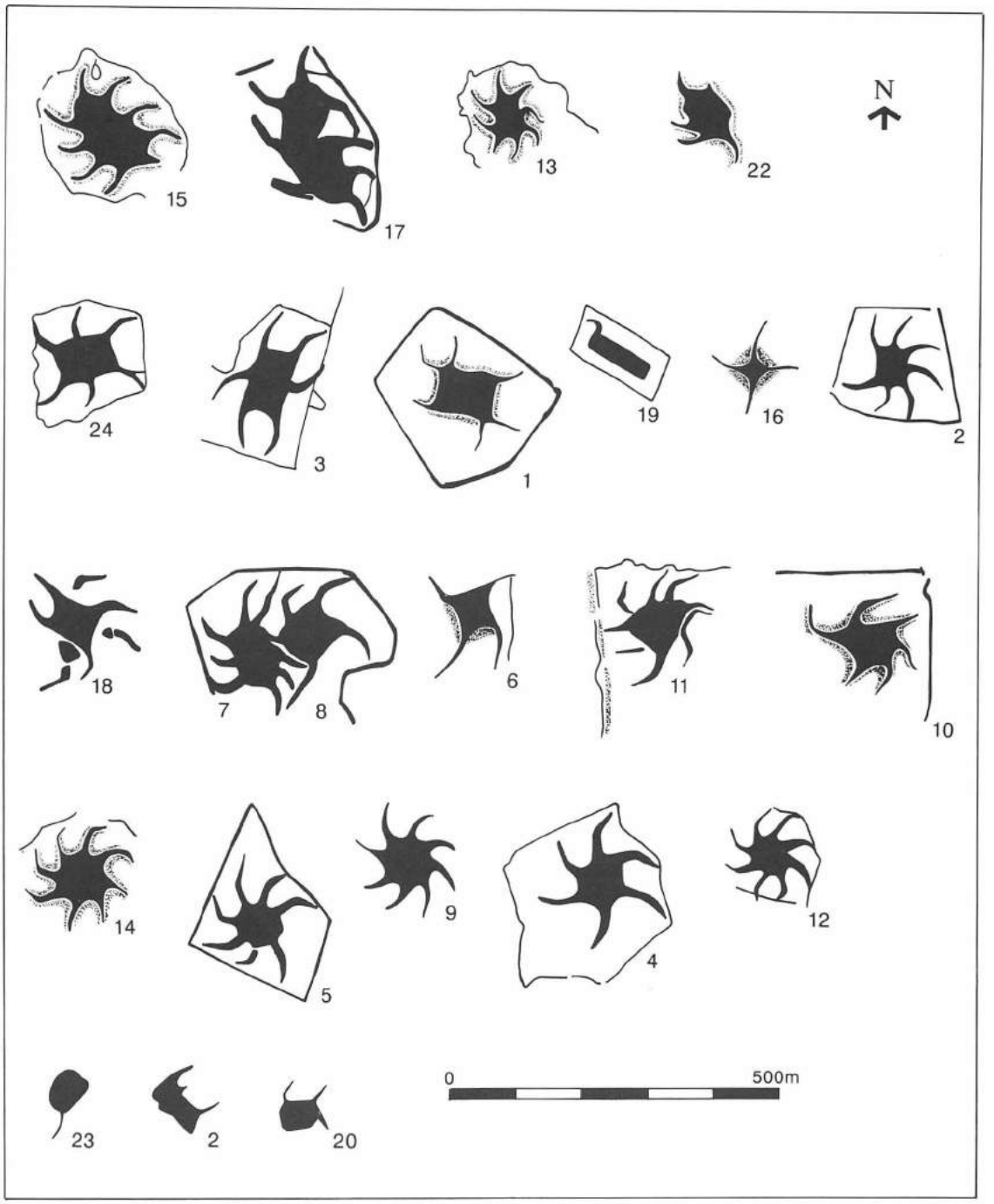
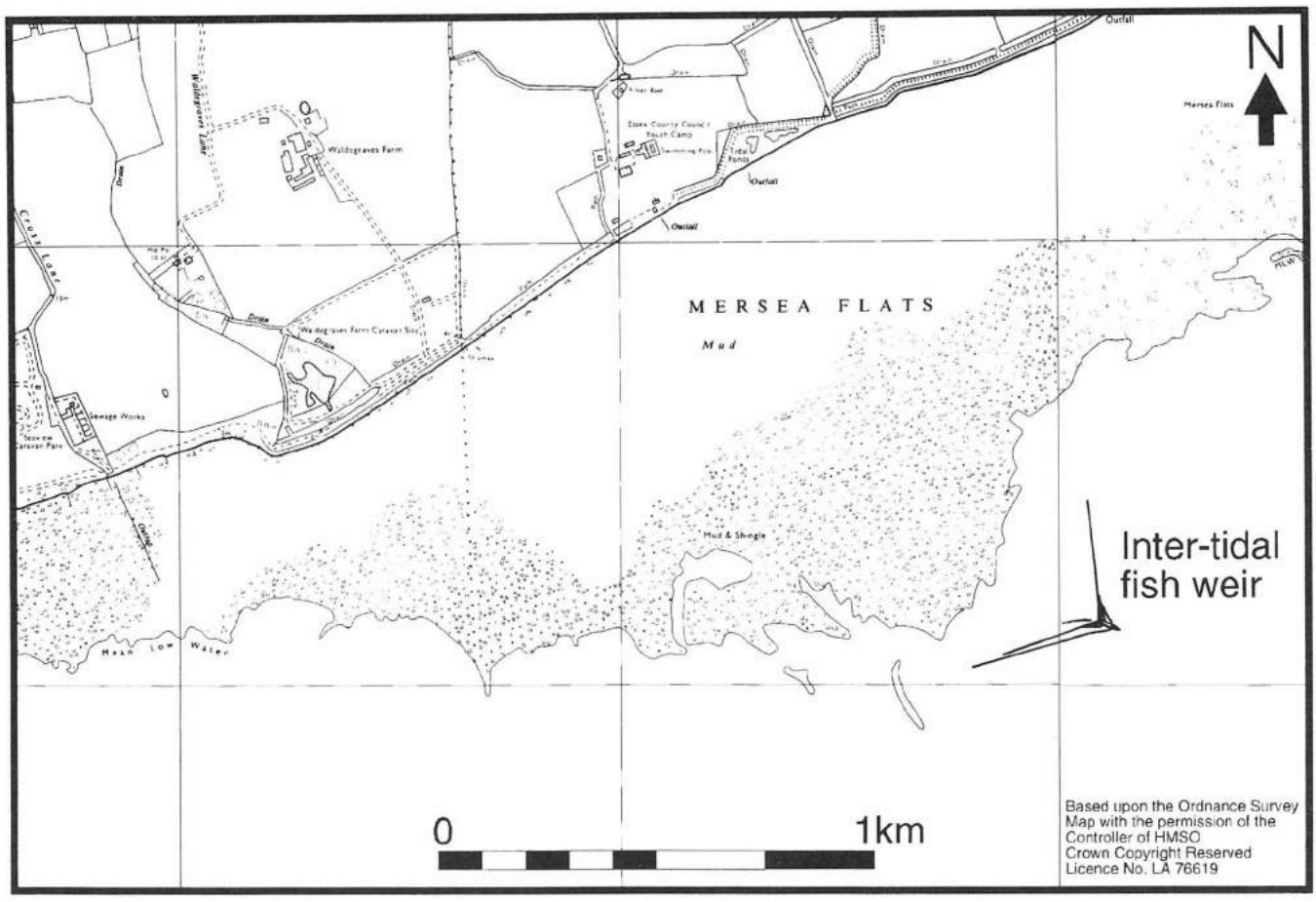


Fig. 10 Duck decoy ponds recorded to date in Essex (numbered geographically beginning with sites in the south of the county): 1. Paglesham; 2 and 3. Round Barn, Tillingham; 4. Marshhouse, Tillingham; 5. Bradwell Brook, Bradwell-on-Sea; 6. St. Lawrence Bay, Bradwell-on-Sea; 7 and 8. Gardiner's Farm, Goldhanger; 9. Goldhanger; 10. Joyce's Farm, Tolleshunt Major; 11. Lauriston Farm, Tolleshunt D'Arcy; 12. Wycke Farm, Tolleshunt D'Arcy; 13. Rolls Farm, Tollesbury; 14. Thistly Road, Tollesbury; 15. Left Decoy Pond, Tollesbury; 16 and 17. Old Hall Marshes, Tollesbury; 18. Waldegraves Farm, West Mersea; 19. Jaywick, Clacton-on-Sea; 20. Peter's Point, Thorpe-Le-Soken; 21. New Decoy Pond, Thorpe-Le-Soken; 22. The Dardanelles, Beaumont-Cum-Moze; 23. Bramble Island, Beaumont-Cum-Moze; 24. Great Oakley Dock, Great Oakley.

The project has continued to map, in most cases with the greatest accuracy yet achieved, the inter-tidal fish weirs which exist on the mudflats of the Blackwater and Colne estuaries (Strachan 1995b). While most of these sites have been discovered by the Essex Aerial Survey over the last few years, only now has systematic research of a variety of aerial photographic sources allowed accuracy to be achieved. Vertical aerial photographic sources, when taken during a low enough tide to reveal features, are used in order to position, as accurately as possible the main outline of the features. Low-level oblique sources are then used in order to add the detail of smaller features. The fish weirs at Sales Point, Bradwell-on-Sea (PRN 2055), and that on



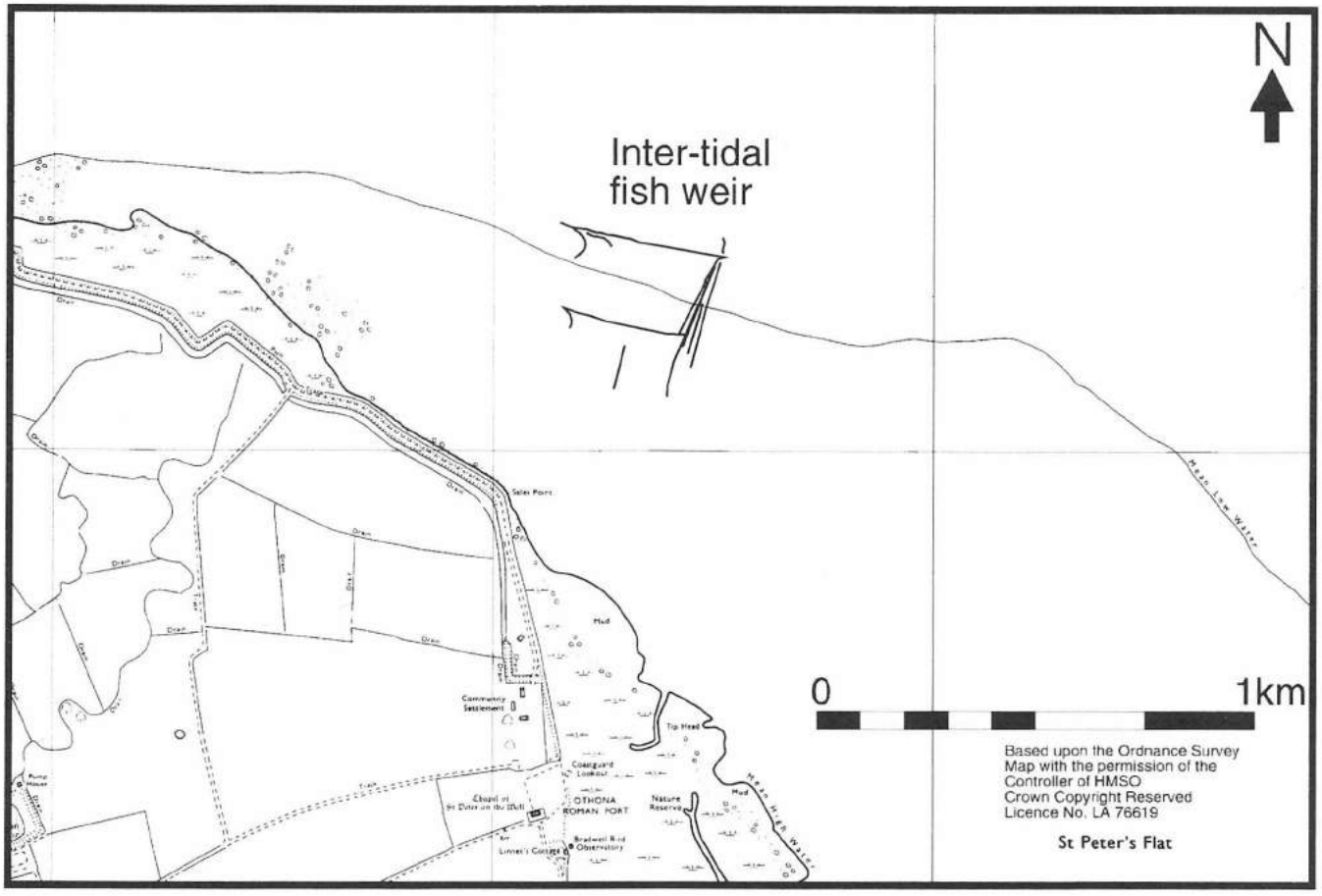


Fig. 11 Tidal fish weirs at Mersea Flats, East Mersea (top) and Sales Point, Bradwell-on-Sea (bottom).
© Crown copyright 87584M.

Mersea Flats, East Mersea (PRN 9970), illustrate two designs of inter-tidal weir (Fig. 11). Both sites are currently undated, although samples for radiocarbon dating have been taken for the Sales Point site as part of the Blackwater Estuary Management Plan study (Strachan *this volume*, on opposite page).

Mapping continues to complement the World War II Defences Survey in plotting a range of defence features outside the remit of that survey, thus helping to expand the picture of the county's defence during the war. The use of large numbers of RAF photographs dating from 1945-7 (and more rarely from 1944 and 1942) enables the recording of sites that were dismantled or destroyed shortly after the war, with little remaining trace on the ground. This is particularly the case with a series of anti-aircraft batteries, known as Diver sites, established along the coast near the end of the war to counter attacks by V1 rockets. Although readily recognised on photographs from the mid 1940s, comprising 4 or 8 gun emplacements with associated tracks and hut complexes; these seem to have been constructed with minimal ground disturbance and once the above ground features were removed, little trace remained visible from the air by the early 1950s. It is beyond the scope of the project to record these in detail, but gun emplacement earthworks are plotted and the full extent of the site recorded for the SMR.

The project has also recorded areas of anti-glider ditches, in particular along the Colne estuary on the Brightlingsea marshes, and to a lesser extent between Clacton and Jaywick. Around Colchester, small areas of anti-glider ditches constructed across flat open land to deter enemy aircraft landing, or possibly as training exercises, have been mapped. One of these was suggested to be planned Roman field layouts (Crummy 1979, 81), though when sectioned, finds were limited to fragments of Roman tile (PRN 11950), so dating evidence was inconclusive. The 1940s photographs, however, make their identity as anti-glider ditches unmistakable. During WWII, Colchester assumed great tactical importance, barring the way of an invasion force landing on the peninsula between Harwich and Brightlingsea. The River Colne served as a formidable anti-tank obstacle and the town was surrounded by a defensive perimeter strengthened by pillboxes and buildings that had been hurriedly adapted (Kent 1988, 65). Part of this perimeter comprised an anti-tank ditch (PRN 16485) with associated pillboxes, the former plotted as part of the project.

The areas underlain by gravels show particularly dense concentrations of features visible as cropmarks, in particular along the north side of the Blackwater estuary, to the south of Colchester (Gosbecks) and east of Colchester in the vicinity of Great Bentley and Bradfield. Some of these have been excavated over the past 15 years in advance of gravel extraction, including a Bronze Age enclosure at Lofts Farm (Brown 1988, PRN 7879-7902), multi-period settlement and field systems at Slough House Farm (7905) and Chigborough Farm (Wallis and Waughman forthcoming, PRN 7864-9, 7916-9). Again, the analysis of early photography enabled the plotting of features which had been destroyed by mineral extraction prior to the 1970s without an opportunity for archaeological investigation, leading to a more comprehensive view of the cropmark record in the area. Re-mapping has also continued to produce new evidence from the existing photographic resource, such as a small barrow cemetery (PRN 16444), comprising two ring ditches, a square barrow and one sub-square barrow, at Kelvedon Lodge, north of Braxted Park. As part of a large crop mark complex (PRN 3063) at Sturrick Farm, Great Bentley, a large, wide ditched penannular enclosure, *c.* 30m in diameter, which has been long thought to possibly be a hengiform monument, has been re-mapped. The site was field walked and partly excavated as part of the Essex Cropmarks Enclosure Project and was shown to be a probable medieval post-mill (Brown and Foreman, below, p.00). This revelation indicates the importance of the MORPH database and shows how eventual morphological analysis should reassess our understanding of the cropmark record. Indeed, a site new to the SMR and only *c.* 3km away at Little Bentley (PRN 17326) has been mapped for the first time and has been shown to be of similar size and shape. This site also has a south-east facing entrance and similar position, around 300m from a north-south flowing brook. This site may also have been considered a possible hengiform site, but must now be reconsidered in the light of the excavations at Great Bentley. It is also worthy of note that although the Little Bentley site has only been recently added to the SMR, the site was photographed, and therefore discovered, in June 1976. This indicates one of the primary benefits of NMP in that the systematic consultation of the existing aerial photographic record is necessary to achieve a consistent updating of information from sources which have otherwise not been accessed to the SMR.

The Blackwater Estuary Management Plan Archaeological Programme

David Strachan

Work has continued on research into various aspects of the archaeology of the Blackwater Estuary as part of the implementation stage of the Blackwater Estuary Management Plan (Maldon District Council 1996). The programme, which is being jointly funded by the RCHME, Essex County Council and Maldon District Council, comprises several small projects aimed at assessing the nature and condition of the archaeology of the estuary and commenting on questions of recording strategies and site management in the inter-tidal zone (Strachan 1996). The inter-tidal archaeology of the estuary varies considerably in nature and includes a range of prehistoric sites; Late Iron Age and Roman coastal salt-production sites; large timber fish weirs;

the remains of post-medieval oyster cultivation; and shipwreck sites.

The project aims to revisit the prehistoric sites identified by the Hullbridge Survey (Wilkinson and Murphy 1995 and forthcoming) and attempt to assess the extent of any erosion which has taken place in the past ten years.

An assessment of documentary sources, which lists the various documentary and cartographic sources for the history of the area, has been completed and copies archived within the SMR and the National Monuments Record (Gale 1996).

Seven inter-tidal fish traps, mostly identified by aerial photography (Strachan 1995b), exist in the study area. Indeed, almost all surviving examples currently known in the county are in the Blackwater estuary, the single exception being the Holbrook Bay fish-trap, in the Stour estuary. Four timber samples from the Sales Point fish weir (PRN 2055), Bradwell-on-Sea, have been taken for C14 dating.

Wrecks of working vessels and sailing craft are abundant on the Essex coast (Finch 1976) and these traditional craft are rapidly eroding away unrecorded. While many of these sites have been recently added to the SMR by the Essex Mapping Project and the Aerial Survey, the project aims to assess future recording strategies for this site type.

Despite weather conditions having resulted in numerous aborted visits to sites at low tide, and the various logistical problems associated with inter-tidal survey, progress will continue in 1997.

Cropmark Enclosures Project

Nigel Brown and Stuart Foreman

The project is designed to examine a group of circular cropmark enclosures in north Essex which have commonly been interpreted as hengiform monuments (Buckley and Priddy 1987; Harding and Lee 1987). Four sites have been chosen for investigation: Belchamp St. Paul, Little Bentley, Great Bentley, and Rivenhall. The aim of the project is to date the cropmarks and investigate something of their immediate environs. Fieldwork has comprised fieldwalking and trial trenching of the hengiform sites and associated ring-ditches. Fieldwalking has taken place on all four sites and trial trenching at Great Bentley and Rivenhall.

The hengiform cropmark at Great Bentley produced 12th/13th-century ceramics and appears to be a medieval windmill. As such it is comparable to the recently excavated site at Boreham (Clarke, this volume, p.000). A smaller ring-ditch to the south produced Beaker and possible Urn sherds and was confirmed as a ploughed-out barrow.

At Rivenhall a hengiform monument close to a previously investigated long mortuary enclosure (Buckley *et al.* 1988) produced plentiful burnt flint and some struck flint indicating a possible Neolithic/Bronze Age date. Thermoluminescent dating of some burnt flint may clarify this. Sampling of a small stream valley adjacent to the hengiform enclosure revealed a deep environmental sequence, which will provide data regarding the local environment from the early post-glacial period. This small valley would have been a much more prominent feature when the Neolithic and Bronze Age monuments were built. Deverel-Rimbury ceramics recovered from the area of a smaller ring-ditch again identified that this was a ploughed out barrow.

Trial trenching at Belchamp St. Paul and Little Bentley should take place in 1997.

Archive: E.C.C., to go to C.M.

Historic Towns Survey

Maria Medlycott

The Essex Historic Towns Survey is an extensive urban survey of 32 historic towns in Essex (Fig. 12), the notable exception being Colchester which will have its own more intensive survey. This project, funded by English Heritage, forms part of a nationwide reassessment of the management of the urban archaeological resource. The project is being carried out by Essex County Council's Planning Department and is intended to be completed by the end of 1997. It takes as its basis a survey carried out by the County Council in the early 1980s, and published as *Historic Towns in Essex* (Eddy and Petchey 1983).

The survey is examining Roman, Saxon, medieval and post-medieval towns. It uses a number of sources, including the Essex Sites and Monuments Record (SMR), the List of Buildings of Architectural and Historical Interest, records held by the County Planning Department's Historic Buildings Section, and various cartographic and documentary records (following an assessment of such records by Dr Chris Thornton of the Victoria County History, Essex). The preparation of this report has involved the addition of information to the SMR database and the digitising of spatial data onto a Geographic Information System (GIS).

The primary intention of the survey is to devise a management plan for the archaeology of the historic towns within the local government planning process. The recommendations of the 1980 survey were adopted as Supplementary Planning Guidance by the County and District Councils, and something similar is envisaged for the current survey.

To date the survey is making good progress. The collation and organisation of the raw data (archaeological, architectural, cartographic and documentary) has been completed, as has the up-dating of the SMR. The survey of the towns industrial heritage is underway. The computerised database of the Listed Buildings for the towns has also been completed (with the exception of Maldon District, which is still with the DoE). The GIS is up and running, and much of the raw data has



Fig. 12 Historic towns in Essex.

been input and is being used in the analysis and assessment of the individual town's development. The writing of the assessment reports for each of the Historic Towns has begun.

Industrial Archaeology Survey

Shane Gould

Considerable progress has been made with the industrial archaeology survey during 1996. The methodology was outlined in (Gould 1995) and an internal procedural document has now been issued.

I Thematic Surveys These aim to assess all the surviving monuments of any given type and once complete the priorities of each site type can be established. Rates of attrition, recording levels and schemes of adaptive reuse are critically reviewed; where appropriate additional buildings are recommended for statutory protection and in some instances, structures may be selected for possible de-listing. Surveys have been completed for the following:

A. Military Airfields in Essex during World War Two

Essex was strategically placed to play a major role in air warfare and bombing campaigns during the Second World War. Many civil sites were requisitioned and with the arrival of the Americans in 1942 a massive construction programme began. Several sites are remarkably well preserved retaining runways, aircraft dispersal's, control towers and hangers.

Boreham Airfield, Chelmsford (PRNs 8943, 16498-16507) An intensive survey of Boreham Airfield was completed in 1996 in advance of gravel extraction. The airfield was constructed by the American Army in 1943; three runways were laid out in a triangle shape, around which were 50 aircraft 'loop' type hard standings. On the northern side stood the main technical site comprising stores, offices and workshops, but these have mostly been demolished. In front of the main complex set within the perimeter track, the control tower (Plate 2) was built with associated floodlight trailer shed and night flying equipment store; of these only the control tower still stands. In common with other wartime bomber airfields Boreham was equipped

with two T2 aircraft hangers, one on the north side within the main technical site which no longer stands, and one at the south-west corner which is still in use. The main entrance track to the airfield was protected by a guard house, crossing over the Drakes Lane public highway the track continues north to the Administrative Site which because of its importance was set back from the airfield. This contained a bomb site store, station offices, a crew briefing room and the operations block; only the latter now survives.

The control tower at Boreham is of the standard type design 'Watch Office of all Commands', built to Air Ministry Works Department Drawing No's 12779/41 and 15371/41.

B. Boundary Markers

These are an important aspect of the Essex countryside depicting parish and civil boundaries, estate boundaries and trade boundaries. 121 sites were eventually identified and of these only 37 retain their marker; they include cast iron or wooden posts, stones and pollarded trees. Some of the markers carry inscriptions, engravings or other markings declaring their purpose (Plate 3). A copy of the final report together with our statutory recommendations has been sent to English Heritage.

C. Surveys are also underway for an additional 24 malthouses, World War One airfields, model farms designed by Fredric Chancellor and the monuments of the public water supply industry.

II Detailed site surveys These are instigated when sites or structures become threatened by future development. A large number of industrial and modern buildings were surveyed in 1996, and these are likely to increase in coming years.

A. Waltham Abbey Royal Gunpowder Factory, South Site The Waltham Abbey complex comprises three separate sites beside the River Lea; North Site (PRN 3437), the Lower Island Works (PRN 15129) and South Site (PRN 15096). An intensive survey of North Site by the Royal Commission on the Historical Monuments of England (RCHME 1993) in association with English Heritage culminated in the scheduling of a large part of the site and the listing of 21 buildings. In October 1996 the Heritage Lottery Fund



Plate 2 Control Tower, Boreham Airfield. The first-floor left hand window has been replaced and the balcony is now supported by steel girders (Photo S. Thorpe).



Plate 3 The Crow Stone, Leigh on Sea. Erected by the Port of London Authority in 1836 to mark the jurisdiction of the City of London. This stone replaced an earlier example which now stands in the grounds of Prittlewell Museum (Photo S. Gould)

announced a grant of £6.5 million which will enable the refurbishment of North Site as an interpretation centre, exploring the site's technological, social and economic history.

The South Site was fully recorded in advance of a proposed development in 1996. The works contains *c.* 650 buildings and structures which were used for the manufacture of nitro-glycerine, cordite, RDX and missile propellants. Several buildings retain internal features of interest including cordite presses (Plate 4), safety lights, sprinkler systems and shoe boxes where workers would change their foot wear before entering 'danger areas'.

B. Saltcote Maltings, Heybridge (PRN 15052) This impressive multi-storey brick-built structure (Plate 5) was identified as being of particular importance during the thematic survey of Essex maltings (Gould 1996). Erected between 1897 and 1903 the process flow can be deduced from the surviving remains; barley was delivered and the finished malt dispatched from the right hand side of the building. The kiln to the left, which is later, may have been used to dry the barley before steeping; it was then laid on the growing floors and finally placed in the kilns to the right. A full record was made of the building prior to its conversion into flats.

C. *Rochford Hospital, Rochford* (PRN 15012) This spectacular building was designed by F. W. Smith and has strong affinities with the International Modern Movement style (Plate 6). Such a level of architectural treatment is unusual in hospital buildings of this date and reflects both the importance and civic pride that Southend-on-Sea Corporation attached to this particular enterprise. Although never fully completed, Rochford Hospital was very much a model complex built along modern lines with on-site nurses accommodation, modern services and large areas of glazing. The design was undertaken against the background of changes in public health provision that would eventually culminate in the creation of the National Health Service in 1948.

D. The following surveys were also completed in 1996
The Kursaal, Southend on Sea (ESMR No. 15115)
Little Coggeshall Brewery, Coggeshall (ESMR No. 15095)
West Thurrock Power Station (ESMR No. 15092)
Tilbury A Power Station (ESMR No. 15093)
Takeley Railway Station (ESMR No. 16790)
Longbarns, Epping Forest (ESMR No. 4413)

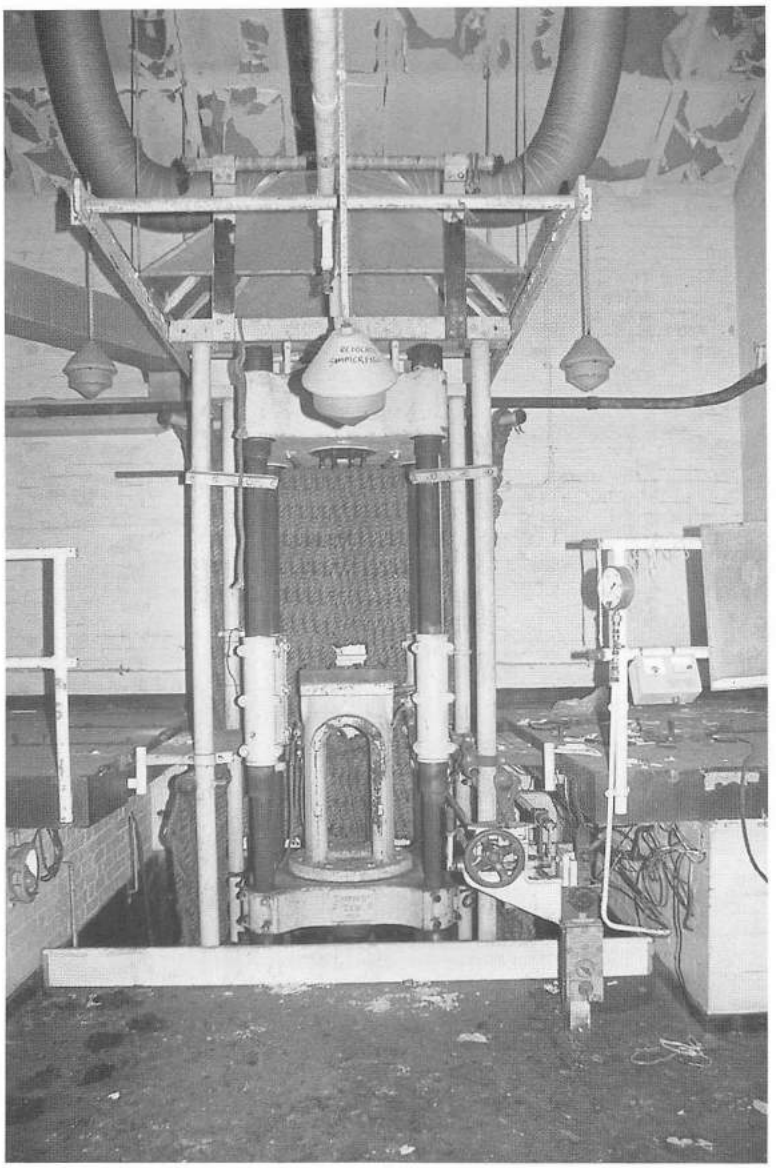


Plate 4 Waltham Abbey South Site. Building P178 retains a 1939 Tangye Cordite Press; the apparatus is surrounded by a cordage blast curtain which would contain any accidental explosion and note the safety lights in the roof (Photo E.C.C. F.A.G.)

Beaumont Quay (ESMR No. 9121)
Southend on Sea Sewage Treatment Works (ESMR No. 15133)
'The Elms', School Lane, Mistley (ESMR No. 15130)

World War II Defences Survey

Fred Nash

During 1996 the survey of the county's World War Two defence sites has concentrated on the coastal 'outer crust' – the pillboxes, gun sites, beach defences and anti-tank obstacles that constituted Essex's first line of defence in 1940.

In the early part of the year the stretch of River Blackwater coastline from Bradwell to Maldon was surveyed. Around Bradwell, all of the original sea wall pillboxes have survived, twelve in total, although a number have been almost buried by the enlargement of the sea wall over the years (Plate 7).

During the summer months, the surveying and documenting of the wartime defences of Harwich was undertaken. To the west of the town, protecting it from an attack on its rear, the Stanier Line crossed the peninsula from Dovercourt Bay to Parkeston. Over 800 concrete blocks formed an almost continuous chain punctuated by pillboxes facing inland. An anti-tank ditch paralleled the blocks and 75 mm guns from America added their weight from concrete emplacements. Around 100 of the blocks still survive together with some of the pillboxes. Around the town itself a number of wartime fortifications remain including a

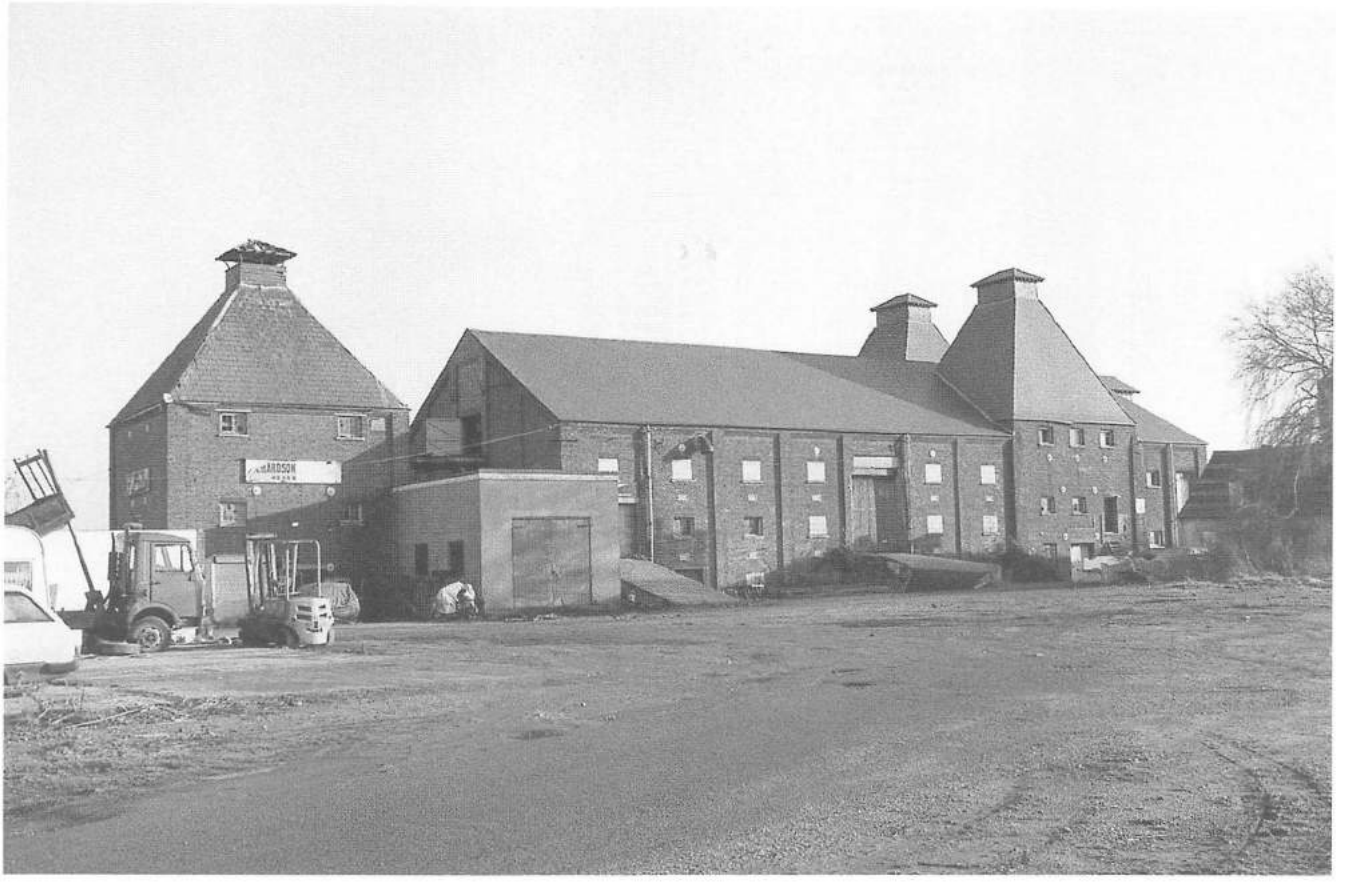


Plate 5 Saltcote Maltings, Heybridge (Photo S. Gould).

quick-firing 12-pounder casemate overlooking the harbour from Angel Gate. Originally, there were two of these emplacements with night-time coastal searchlights and a pillbox. One of the searchlight bunkers still survives close by the casemate (Plate 8). In all, 57 defence sites were recorded in the Harwich survey.

The survey moved back to Maldon in the autumn and continued along the north bank of the River Blackwater. Osea Island - interesting for its World War One motor torpedo boat base of which the dry dock and other features still survive – Tollesbury, Langenhoe, Brightlingsea, Point Clear, Lee-over-Sands, St. Osyth and Jaywick have been surveyed and documented during the latter months. To the west of St. Osyth at Lee-over-Sands, a "curtain" of over 160 anti-tank blocks together with supporting pillboxes bridged the gap from the saltings on the west side of the beach to those on the east side. Many of these blocks still remain in an unbroken line although some have now been covered by sand. The St. Osyth/Jaywick area was seen to be particularly vulnerable. Over a distance of three miles as many as 20 pillboxes were constructed and in the sea a barrier of steel scaffolding was erected by teams of men working between the tides.

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Plate 6 Rochford Hospital. Rochford, showing the main entrance with the boiler house to the rear (Photo E.C.C. F.A.G.)

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Plate 7 The landward end of a double-ended sea wall pillbox at Bradwell (Photo F. Nash)

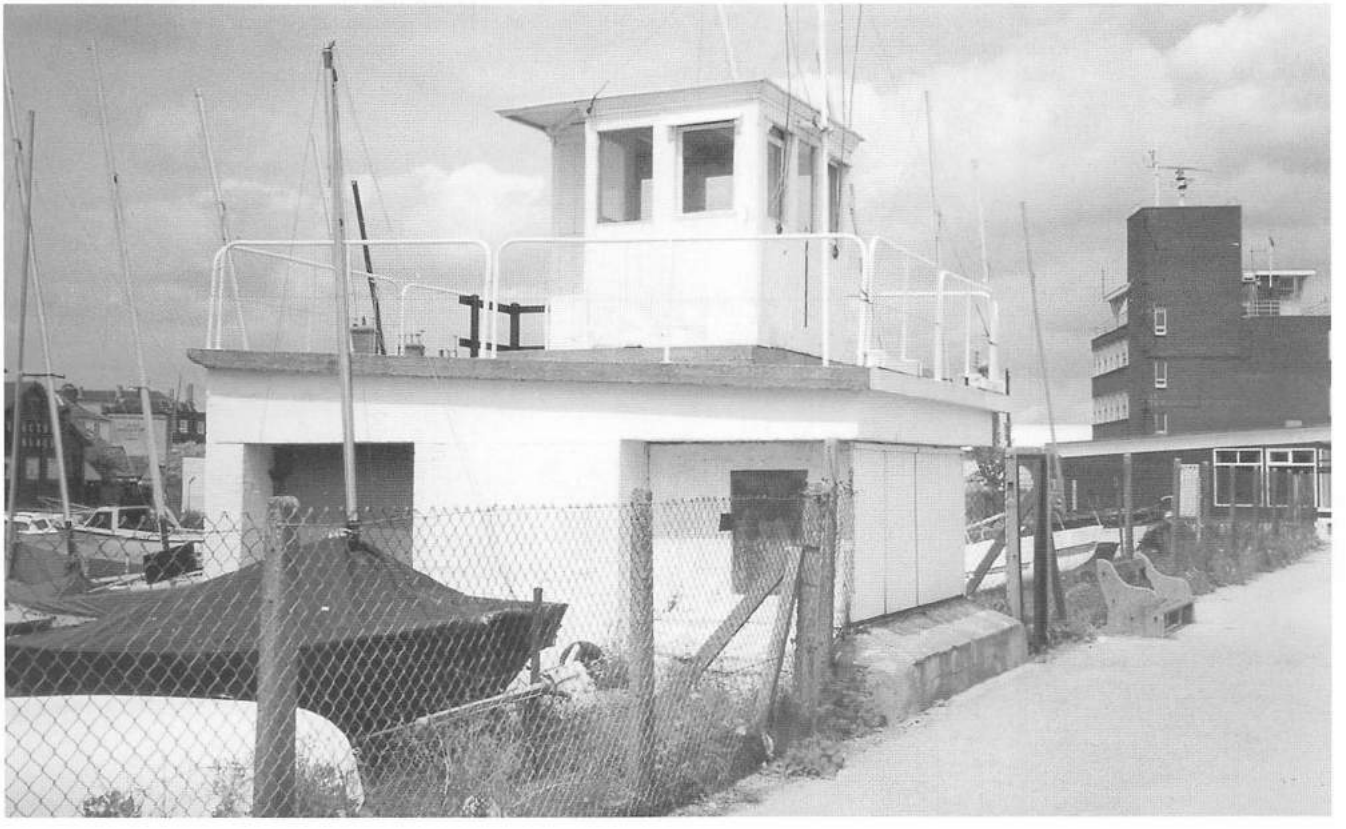


Plate 8 A coastal searchlight emplacement at Angel Gate, Harwich (Photo F. Nash)

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Essex Archaeology and History **28** (1997), 205-227

Archaeology in Essex 1996

Edited by Alison Bennett

This annual report, prepared at the request of the Advisory Committee for Archaeology in Essex, comprises summaries of archaeological fieldwork carried out during the year. The longevity of many projects often results in a lengthy post-excavation and publication process. The publication of these summaries therefore provides a useful guide to current archaeological research, and the opportunity to take an overview of significant advances. This year 92 projects were reported to the County Archaeological Section (Fig. 1).

Sites are listed by category of work and alphabetically by parish; the directors of excavations, organisations involved and information regarding the location of finds and places of final report are listed, where known. Projects continuing from previous years are indicated by reference to previous summaries in the relevant 'Archaeology in Essex 19–' (N.B. prior to 1992 this report was entitled 'Excavations in Essex 19–'.

Contributors are once more warmly thanked for providing information. The illustrations are by: Alison Bennett (Fig. 1), Barry Crouch (Fig. 2) and R.C.H.M.E. (Fig. 3).

The original summaries, and any associated limited circulation reports, have been added to the County Sites and Monuments Record held by the Archaeology Section at Essex County Council, Planning Department, County Hall, Chelmsford CM1 1LF. For details of sites in the London Boroughs, contact the Newham Museum Service, Archaeology and Local History Section, 31 Stock Street, Plaistow, Stratford, London E13 0BX.

Progress in Essex Archaeology 1996

Introduction

The number of summaries this year is the greatest yet, with a total of 92 (Fig. 1). The previous highest was 78 in 1994, whilst there were only 49 in 1995. This increase primarily reflects the resumption of development activity within the county, including both large and small scale developments (42 evaluations this year, 20 evaluations in 1995). Excavations total 20, compared with 12 in 1995.

It is also noticeable and encouraging that local societies and individual amateur archaeologists are now finding a role within and alongside the contractual archaeology environment, with involvement in one evaluation (28), excavation, watching briefs and various types of survey. In all, local societies have been involved in or initiated ten, and individuals six, of the projects reported.

Given the large quantity of summaries, only the most significant are mentioned in the following period paragraphs.

Prehistoric

Further examination of the Pleistocene deposits discovered last year at Aveley has revealed very important faunal remains, including three species new to the previously discovered faunal assemblage here (43). Environmental evidence also came from Springfield (35). Mesolithic finds are scarce, though a concentration of Late Mesolithic/early Neolithic flints may indicate a site at Rainham (29). There is a scatter of late Neolithic/Early Bronze Age finds. Bronze Age ring ditches and an enclosure were identified at Brightlingsea (5) and settlement features of the late Bronze Age Plain Ware phase were excavated at Upminster (62). Brightlingsea (5) also revealed Iron Age features, whilst Late Iron Age/early Roman features relating to the settlement at Kelvedon were excavated.

Roman

Roman sites were well to the fore, with the most interesting discovery from Stanway (61), where further excavation of the Roman burial enclosures revealed many finds, including a gaming board with the pieces still in position. This single find captured the imagination of the local and national press. A notable discovery from Colchester (11) was part of a black and white geometrically patterned mosaic floor with a red border. Also from Colchester were finds of cremations and inhumations, just to the north of Gosbecks (49), and exploratory trenches and geophysical survey to recover an accurate plan of the Gosbecks temple and portico (60, 92).

Away from Colchester, evidence of Roman occu-

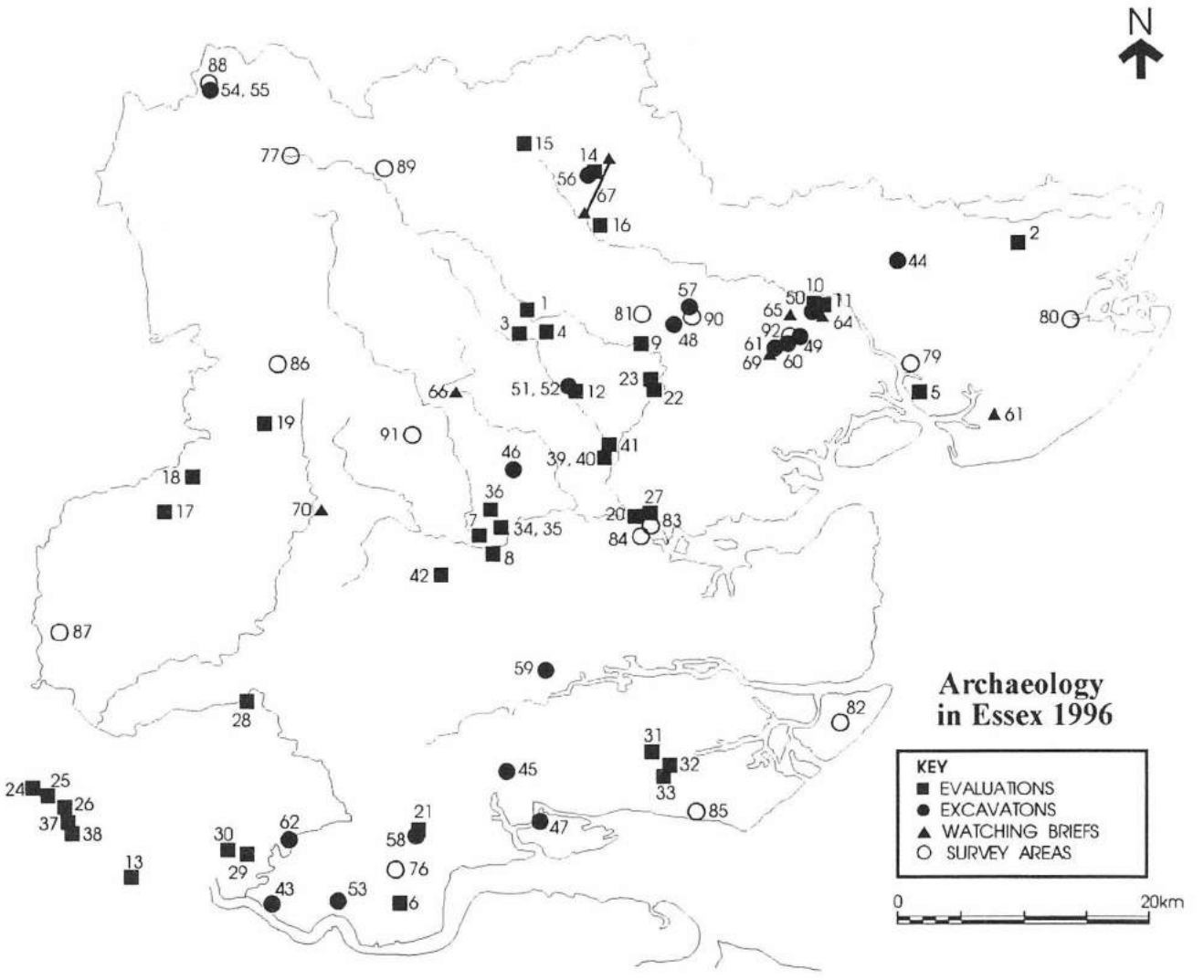


Fig. 1 Location of archaeological projects in Essex 1996.

pation came from an area which later became marsh as sea levels rose at East Ham (13), and building material was found at Witham (39).

Saxon

Two sites produced Saxon features: Chadwell St. Mary (6) and Witham (39). Otherwise there was just the occasional pottery find from several sites.

Medieval

Excavation at Horndon-on-the-Hill (21, 58) revealed property boundaries and building phases from the 12th century onwards, with no trace of earlier settlement. A variety of rural sites were investigated: finds of large quantities of Mill Green ware indicated the presence of a nearby pottery kiln at Noak Hill (28); a probable post-mill and associated buildings were excavated at Boreham Airfield (46); the chapel was re-excavated at the Cressing Temple summer school (51); the moat and associated fishponds were surveyed at Tiptofts manor, Wimbish (77); and geophysical survey revealed the plan of the original medieval church at Pleshey (91).

Post-medieval

An evaluation at Moulsham Hall, Chelmsford (8) revealed remains from the Tudor phase of the Hall. An interesting result came from an excavation at Houchins Farm, Witham (48) where it was revealed that the moat was probably dug in the late 18th/early 19th centuries. The programme of building recording has continued, including the trading quay at Beaumont-cum-Moze (80), surveyed by the R.C.H.M.E.'s Cambridge Office; the recording of a small family run brewery at Coggeshall (81); and the

architecturally interesting Victorian/art-deco Kursaal in Southend (85), which was, unusually, recorded by the developers themselves.

Evaluations

1. Bocking, Former Bradford Street Garage site (TL 762 242)

H. Brooks, H.B.A.S.

Four trenches were excavated: one on the road frontage and one to the rear of the garage site showed deep modern truncation, together with contamination by petrol and oil seepage, with no surviving archaeological deposits.

A trench across the north end of the site revealed several features. A large pit produced a flint core and several flakes. A Roman ditch may have formed the west ditch of the suspected Chelmsford to Long Melford Roman road. There was no surviving road surface, though the natural subsoil revealed in the trench was good quality gravel which may have been a source of construction material. The presence of a live water main prevented an extension of the trench to search for the east ditch of the road. A medieval ditch was cut close to the line of the Roman ditch, presumably representing a rear property boundary to a medieval frontage plot. There were also several post-medieval pits and cuts.

A trench in the southern part of the site revealed only clean natural subsoil, with no trace of the road.

Archive: H.B.A.S., to go to Bt.M.

2. Bradfield, Land south of Bradfield Church (TM 1445 3007)

M. Germany, E.C.C. (F.A.G.)

An archaeological evaluation by trial trenching has suggested that a small plot of cultivated land to the immediate south of the medieval church of St. Lawrence has not been intensively occupied in the distant or recent past. No datable archaeological features were discovered and only three small sherds of abraded pottery (2 Roman, 1 medieval) were found during the investigation.

3. Braintree, College Road (TL 7528 2301)

N.J. Lavender, E.C.C. (F.A.G.)

An evaluation by trenching was carried out in advance of a proposed housing development. Two residual worked flints were found, but there were no features of this period. A number of Roman pits and ditches were recorded on various alignments; one of the pits may have been a well. One feature may be structural, suggesting a building parallel to Rayne Road. South of this lay an expanse of gravel, with a drainage gully on its north side. A pit and two further ditches were of post-medieval date, one of them very modern. A single, unstratified medieval sherd was also recovered.

Archive: E.C.C., to go to Bt.M.

4. Braintree, Great Bradford County Primary School (TL7676 2386)

M. Germany, E.C.C. (F.A.G.)

Four undatable postholes, one undatable stakehole, and several areas of modern disturbance were uncovered during an archaeological evaluation by trial trenching in the south-east corner of Great Bradfords County Infant and Junior School. Two small abraded sherds of Roman pottery and a few fragments of Roman tile were also discovered in modern contexts.

Archive: E.C.C., to go to Bt.M.

5. Brightlingsea, Moverons Farm (TM 075 182C)

C.P. Clarke, E.C.C. (F.A.G.)

Application for extension of an existing gravel pit into part of a cropmark complex within two fields covering a 13ha area overlooking the Colne estuary from the north was received by E.C.C. in 1995. This area was subjected to evaluation by means of aerial photography, geophysics and targeted trenching. Results indicate some activity during the Mesolithic to Saxon periods. Two ring ditches in the southern field are thought likely to be of Early Bronze Age date. An enclosure in the northern field is dated to the Middle or Late Bronze Age, and is thought likely to post-date the Middle Bronze Age cemetery to its southwest. Occasional features of probable Late Bronze Age and Middle Iron Age date are present in the southern part of the southern field. The same area has an apparently unenclosed Late Iron Age settlement, onto which an elaborate enclosure system was superimposed at the beginning of the Roman period. Some evidence for late Roman activity in this area is also present. A small assemblage of abraded early Saxon pottery recovered from the southern field is thought likely to represent casual loss in the vicinity of a settlement site.

Archive: C.M.

Final Report: Essex Archaeol. Hist.

6. Chadwell St. Mary, County Primary School, River View (TQ 6450 7854)

C.P. Clarke and N.J. Lavender, E.C.C. (F.A.G.)

An evaluation and limited excavation were carried out in advance of an extension to a school building. Three small pits and a sunken-floored building were recorded. Very small quantities of pottery were recovered

from the site, but a spindle whorl and half of a fired clay loomweight (American doughnut shaped) came from the bottom fill of the sunken-floored building. Also from the building came evidence of early Saxon cereal cultivation (oats, barley and rye), and ericaceous charcoal indicating a heathland environment. There was also a 3rd to 4th-century coin and small quantities of Roman pot and tile residual in the Saxon features.

Archive: T.M.

7. Chelmsford, 2-6 Parkway (TL 7081 0645)
B. Langton, Cw.A.T.
Field evaluation on behalf of Friends Provident Ltd revealed up to 1.20m of stratified archaeological deposits considered to be fills of the defensive ditches (northern sector) of the Roman town, the projected line of which pass across the east side of the site. Due to soil contamination only limited examination of these deposits could be undertaken; it was consequently impossible to confirm absolutely the line of the putative ditch.

Archive: Cw.A.T., to go to Ch.E.M.

8. Chelmsford, Land off Princes Road (TL 7100 0555)
R. Clarke, E.C.C. (F.A.G.)
Evaluation by trenching in advance of a proposed housing development identified the following archaeological evidence.
Medieval
Several ditches, including a field boundary, and a possible pit were found in Area A1, which contained 10th – 14th-century pottery and which probably date from the pre-Reformation, monastic period of the site.
Tudor
Features associated with the Tudor (16th-century) phase of Moulsham Hall were concentrated in Area B, in the western half of the evaluation area. These comprise the fairly well-preserved remains of at least two walls and a layer of Tudor bricks which is either demolition debris or the base of a building platform. The walls were probably part of the extensive Tudor gardens. A ditch and a possible pit containing Tudor finds were also recorded in Area A1.
Georgian
The robbed-out foundations of a rectangular building dating from the Georgian (18th-century) phase of Moulsham Hall were located on the area of the 'raised platform' in Area A1. This building would probably have been positioned to the north of the main entrance into the Georgian manor. Layers relating to phases of demolition and construction were also identified which are likely to date from the period of re-building in 1728-1743. A large ditch running parallel to an earlier medieval field boundary ditch was investigated to the south of the building which was probably a road-side ditch for the entrance into the estate. Several other boundary or drainage ditches and gullies of varying proportions and orientations were located in all three areas, including a large field boundary ditch in Area A2.

Most of the parchmarks plotted from the aerial photograph were identified as being the remains of buildings, walls, ditches and field boundaries which relate to the medieval, Tudor and Georgian phases of Moulsham Hall.

Archive: Ch.E.M.

9. Coggeshall, Abbey Farm (TL 8510 2210)
A. Wade, E.C.C. (F.A.G.)
Despite the proximity of the evaluation area to the medieval abbey at Coggeshall, little evidence of archaeological activity was detected by the fieldwalking survey. A single sherd of medieval pottery and a piece of tile were the only finds recovered which were contemporary with the ecclesiastic life of the abbey. These finds are likely to be the result of manure spreading on the field.

Three minor concentrations of struck and burnt flint at TL 8508 2216, TL 8512 2212 and TL8510 2198 may indicate the existence of prehistoric deposits in the vicinity. A linear concentration of post-medieval material between TL 8514 2198 and TL 8514 2208 is likely to represent either the line of an earlier field boundary or (more recently) manure spreading.

Archive: Bt.M.

10. Colchester, Sheepen Road, Lexden (TL 9905 2550)
S. Benfield, C.A.T.
The archaeological evaluation comprised 14 machine excavated test pits on the Borough Council lorry and car parks, and Institute former tennis courts, together with four trenches on the Institute playing fields.

No significant archaeological finds came from the lorry and car parks; however a small amount of residual Roman tile and pottery was recovered from the tennis courts area, together with a section of undated structural timber.

The playing field trenches revealed significant amounts of Roman material in waterlogged contexts coming from over 1m below present ground levels. The finds consisted of pottery dating to the 1st - 3rd centuries, roofing tiles, mortar and oyster shell spreads, and a small amount of painted plaster. With this were large amounts of brushwood and some structural timber. A feature interpreted as a ditch was also encountered at this level.

Archive: C.A.T., to go to C.M.

11. Colchester, Mercury Theatre, Balkerne Passage (TL 9927 2513)

C. Crossan, C.A.T.

The Mercury Theatre stands immediately south-east of the Balkerne Gate with the grounds which overlie a large part of *insula* 25a of the Roman town. Nine trenches were machine-dug in advance of proposed extensions, exposing evidence of Roman buildings at each sampled location. A common characteristic of the uppermost archaeological levels was the almost universal presence of clay-rich deposits variously representing destruction debris and constructional make-up between different phases of building.

A notable discovery was part of a black and white geometrically patterned mosaic floor adjoined to the west by a 1.1m wide border of red tesserae. A trench located 4m to the east revealed a well preserved stretch of plain red tessellated floor which, for reasons of width and level, appears unlikely to belong to the same room as the mosaic.

Archive: C.A.T., to go to C.M.

12. Cressing, Cressing Temple (TL 7995 1857)

T. Robey, E.C.C.

Three evaluation trenches (CT 30) were excavated:

T1 (20m by 1m) located two ditches running north – south. One was possibly medieval, with post-medieval (probably 17th-century) infill. The other ditch ran along the boundary of the monument. This was probably post-medieval and was backfilled and replaced with a pipe in *c.*1973. Also encountered were a possible medieval gravel layer, and various minor post-medieval and modern features.

T2 (9.5m by 0.8m) was located further north of T1 and cut through the same post-medieval ditch, and sampled the prehistoric and Romano-British subsoil to it's east. A post-medieval brick culvert may have preceded the ditch as drainage, and a broadly contemporary post hole suggested a fence.

T3 (9m by 0.8m) again located the ditch and pipe, but also the area to the west of it. Several post holes and/or tree holes were revealed, the earliest of which were medieval

(Subsequent excavation of the area of CT 30 is summarised under the excavation section, project 52).

Previous summaries: Gilman (ed.) 1989, 61-2; 1990, 130-1; 1991, 153; 1992, 103; 1993, 204-5; 1994, 249; Brown and Flook 1990; Robey 1993a, 1993b; Gilman and Bennett 1995, 247-9; Bennett and Gilman 1996, 267-8.

Archive: Cressing Temple

13. East Ham, Milk Street, North Woolwich (TQ 4370 8005)

I. Hanson, N.M.S.

A stepped trench, 12m by 12m at the surface, was excavated to expose alluvial deposits down to natural gravel. Ground water was encountered at 5m which prevented gravel being exposed. Alluvial clay and peat layers were revealed.

At a depth of 0.3m to -0.10m O.D. two layers containing Roman material were revealed. The upper layer consisted of a deposit of light grey alluvial clay containing late fine 2nd-century AD ceramics including samian, and the articulated skeleton of an immature bovine. The lower layer consisted of an organic clayey silt containing 2nd-century AD pot, including samian and mortaria, brick, tile, burnt daub, bone, charcoal, wood, and three post holes.

The two layers seem to represent evidence of occupation in the general or immediate vicinity of the excavation, during a period when the marsh was drier due to low sea levels.

Archive: N.M.S.

14. Great Maplestead, St Giles' C. of E. Primary School (TL 8081 3471)

S. Godbold, E.C.C. (F.A.G.)

An evaluation carried out in advance of an extension to the existing school building recovered residual finds of early Saxon pottery dating to the 5th-7th centuries. Prehistoric activity was also suggested by the recovery of a small flint core of probable Neolithic/Bronze Age date. No archaeological features of this date were present, but several post-medieval metalled surfaces were recorded, the earliest of which contained brick fragments similar to the bricks used in the school building, and is therefore likely to be contemporary with the latter's construction in 1863. The absence of topsoil below this surface suggests that the area may have been reduced in level at the time of the construction of the school.

Archive: Bt.M.

15. Great Yeldham, land to the west of High Street (TL 7595 3815)

M. Holmes, N.A.

Archaeological evaluation, comprising six trenches, showed that there was no medieval street frontage along this part of the High Street. Two small pits, one containing two pieces of worked flint, were the only archaeological remains found.

Archive: N.A., to go to Bt.M.

16. Halstead, Co-op Yard, Rosemary Lane (TL 8115 3062)

R. Clarke, E.C.C. (F.A.G.)

The archaeological evaluation identified the founda-

tions of a brick-built structure situated to the west of the River Colne. The foundations are probably those of the cornmill shown on the 1876 OS map. A large brick-built circular feature, interpreted as a soakaway, was also identified in the north-west corner of the evaluation area. Almost two metres of post-medieval alluvial deposits and made-ground were revealed in all three trenches excavated.

Archive: Bt.M.

17. Harlow, Izzards Allotments (TL 4690 0950)
A. Garwood, E.C.C. (F.A.G.)
The archaeological evaluation identified archaeological remains spread over a large area, but no substantial concentrations.

Prehistoric activity comprised a small ditch that could not be closely dated and three possible prehistoric pits. The only Roman feature was a small pit truncated by a later pit and field boundary ditch. A small medieval field boundary ditch dating to the 13th-14th century was located at the northern end of the site, while the post-medieval features included two field boundaries and a clay extraction quarry pit. No evidence of post-medieval pottery kilns was uncovered.

Archive: H.M.

18. Harlow, Mill Lane, Churchgate Street (TL 4838 1151)
N.J. Lavender, E.C.C. (F.A.G.)
Six trial trenches were excavated. Extensive post-medieval and modern refuse disposal was identified, including two 19th-century pig burials. One ditch and one gully were undatable, but may be of medieval date. Finds recovered: modern pottery, modern metalwork, post-medieval and modern tile, Roman tile, animal bone.

Archive: H.M.

19. Hatfield Broad Oak, Buryfields, Cage End (TL 5458 1638)
H. Brooks, H.B.A.S.
Three out of the five evaluation trenches were found to be void, the site being very disturbed and the modern ground level being mainly below the Victorian ground level, probably as a result of landscaping and foundation work associated with the construction of the house which occupied this site. Two of the trenches (along the southern part of the frontage) revealed four periods of archaeological activity:

Period 1 represents 16th-century rubbish pit digging and Period 2 represents the laying of rough stone surfaces in the 16th to 18th centuries. These activities are undoubtedly associated with houses known to have stood, in 1624, hard against the west street frontage of Cage End. The remains relate to their backyards or gardens. Period 3 represents Victorian to mid-20th century activity, with a brick drain and numerous garden beds. Period 4 represents 20th-century house building and associated activity.

Archive: H.B.A.S., to go to S.W.M.

20. Heybridge, Northern Relief Road (TL 845 085)
N.J. Lavender, E.C.C. (F.A.G.)
Eight and a quarter hectares of the proposed route of the Heybridge Northern Relief Road were fieldwalked. Evidence of a recently backfilled quarry and extensive post-medieval manuring was identified. Small quantities of medieval pottery were recovered, but are unlikely to be significant. Prehistoric activity was indicated by flint (burnt and struck) in the area of a known cropmark complex, and a single sherd of prehistoric pottery was recovered from the eastern end of the survey area. Finds consisted of: pottery (prehistoric, medieval, post-medieval, modern), burnt flint, struck flint, tile and brick (post-medieval).

Archive: E.C.C.

21. Horndon-on-the-Hill, corner of High Road and Mill Lane (TQ 6697 8335)
S. Godbold, E.C.C. (F.A.G.)
An evaluation by trenching was carried out in advance of construction of a new village hall, in an area adjacent to the medieval market. The main aims were to determine the date and character of medieval activity in the market area, and whether there is any evidence of earlier settlement related to the known late Saxon mint and postulated *burh*.

Apart from a single pit and a few sherds of Saxon pottery residual in later features, there is no evidence which can be related to the late Saxon mint and *burh*, and the earliest large-scale activity occurred in the 12th-early 13th century. At the High Road frontage, the ground was levelled off at this date, and a sequence of ditches running east-west, back from the High Road frontage and parallel to Mill Lane, was recorded in all trenches. The earliest of these probably represents a roadside ditch alongside a forerunner of Mill Lane, but later ditches represent a boundary related to the laying out of building plots at the edge of the market area. Most features of this date were rubbish pits.

The latest in the sequence of boundary ditches had become filled by the end of the 13th century, although large quantities of domestic rubbish continued to be dumped in the top of the ditches in the mid 13th-14th centuries. By the 14th-15th centuries the ditch area had been levelled. The wall trenches and post-holes of the south side of a timber building extending back from the High Road were recorded to

the north of the ditch sequence. This building post-dates the infilling of the ditches and is broadly datable to the 13th-15th centuries. A hearth or oven cut the south wall of the building, and appears to be part of a later, less well defined structure.

In many areas the latest medieval stratigraphy was truncated by post-medieval building levels. An extensive clay levelling with brick footings relates to cottages with frontages on both High Road and Mill Lane. These were built in the 18th or 19th century, and were demolished earlier in this century.

The medieval levels, especially the 12th- to 13th-century ditch sequence and the dumping of rubbish in the ditch area in the 13th-14th centuries, produced large quantities of finds. The medieval pottery is the best group recovered from Horndon so far, while the large amounts of animal bone and marine shell from some levels provide evidence of medieval diet. The lava quernstones and metalworking slag suggest that milling of grain and smithying were taking place around the market area. Although wet ground conditions were encountered in some parts of site, the potential for survival of plant and other organic remains is limited.

(Subsequent work on the site is summarised under the excavation section, project no. 58).

Archive: T.M.

22. Kelvedon, Lawn House, Orchard Road (TL 8586 1847)

R. Clarke, E.C.C. (F.A.G.)

The archaeological evaluation identified a rectilinear ditch oriented northeast-southwest and containing mid 18th-century pottery. Two post-holes were also located to the west of the ditch. Datable evidence, in the form of two Roman pottery sherds, was retrieved from one of the post-holes. The sherds were small and therefore could be residual. However, no later pottery was present, and so a Roman date is feasible for this feature. Another sherd of Roman pottery and a single sherd of Saxon pottery (5th to 8th century) were also recovered from unstratified contexts, indicative of Roman and Saxon activity nearby. Finds include pottery, tile and small amounts of animal bone, oyster shell, clay pipe, glass, slag and iron nails.

Archive: Bt.M.

23. Kelvedon, Lawson Villas, High Street (TL 8630 1891)

S. Foreman, E.C.C. (F.A.G.)

Evaluation by trenching in advance of a proposed housing development to the rear of properties fronting onto Kelvedon High Street, located a number of Late Iron Age and early Roman features, in eight trenches. There was no evidence for early prehistoric occupation, but 2 sherds of possible Middle Bronze Age pottery were residual in later features.

Late Iron Age/early Roman features included a very large ditch (37) (*c.* 7m wide x <2m deep), which ran parallel to, and *c.* 70m to the south-east of the modern High Street, which may have been defensive in nature. It was aligned north-east to south-west and was located close to the predicted line of the late 2nd-century Roman town defences (Rodwell 1988). However, as it was apparently back-filled by the beginning of the Flavian period (AD 70), it is more likely to be associated with the Late Iron Age settlement at Kelvedon. A series of shallow, Late Iron Age and early Roman gullies were located to the south-east of the ditch, on a broadly north-south alignment, and there was some evidence for an embankment on the same side of ditch 37, though it need not be of Roman origin. There was little evidence for activity on the north-west side of the ditch, except for modern and post-medieval features. However, a single Late Iron Age pit (25) was identified in trench E. A second major boundary line, located exactly halfway between the High Street and ditch 37, on a parallel alignment, was marked by a Late Iron Age, V-profiled ditch (03) and an early Roman fence or palisade trench (57).

A total of 667 sherds (9029g) of Late Iron Age and early Roman pottery was recovered from 35 contexts (21 discrete features/segments). Late Iron Age and Roman small finds of interest included a copper-alloy ring, a sherd from a glass vessel and a glass bead, all from Late Iron Age/early Roman contexts. Some ironwork was recovered, but only the nails were identifiable. Bone preservation was extremely poor, with only a few unidentified fragments recovered. No Roman tile was found.

There was no evidence for medieval activity on the site, but four post-holes in trench D indicated the presence of a small 16th or 17th-century rectangular structure, close the rear boundary of the tenement occupying the junction of the High Street and St. Mary's Road.

Archive: Bt.M.

24. Leyton, 1-3 Sedgewick Road (TQ 3802 8674)

M. Beasley, N.M.S.

Evaluation revealed three features: two cut into the brickearth and of possibly prehistoric date, the other being a post-medieval pit cut into the overlying plough-soil.

Archive: N.M.S.

25. Leyton, Leyton Orient Football Club, Buckingham Road (TQ 3788 8640)

A. Telfer, N.M.S.

An archaeological evaluation took place on the site of the south stand, revealing deposits dating to the post-

medieval period. A horn-core lined drain and a possible field boundary were recorded, both of which appeared to be associated with field systems belonging to the Ruckholt Estate, a major estate in the area from the 13th to the 19th centuries. A number of post holes were also recorded, one of which contained fragments of daub. Although the dating for these is inconclusive, the stratigraphy from Trench 1, to the east of the site, suggests a phase of activity earlier than the horn-core drain, which dated to the 18th century.

Archive: N.M.S.

26. Leyton, South Acute Unit, Langthorne Hospital (TQ 3894 8598)

M.D. Turner, N.M.S.

Two trenches were excavated east and north of the existing Elderly Day Care Centre. These revealed three nearly square post holes of unknown date cutting the underlying natural deposits. One sherd of late Neolithic/Early Bronze Age pottery was recovered from a feature interpreted as being caused by a tree root and was clearly residual. Overlying these features was a layer of ploughsoil and a ditch of possible early 19th-century date. Statigraphically superimposed on this was evidence, in the form of brick foundations and service cuts, for an earlier phase of building on the site of what is now the hospital, dating from the 19th century. In the final phase (second half of the 20th century) are layers of demolition material (from these earlier hospital buildings) used to make-up the ground to take the existing tarmac surface, itself partly covered by grass and soil.

Archive: Vestry House Museum, Walthamstow

27. Maldon, Tenterfield Road (TL 8515 0869)

A. Garwood, E.C.C. (F.A.G.)

Evaluation trenching in advance of a housing development identified little archaeological evidence which could be firmly dated, but features of prehistoric, Roman and medieval date were recorded. An Early Iron Age enclosure or boundary ditch aligned east-west was identified in the north of the site, and a small pit of contemporary date in the west. Other features across the north of the site produced no dating evidence but may also be Early Iron Age in date. A possible Roman pit (dated by a single sherd of pottery) was also recorded.

Evidence of medieval features was very limited, consisting of a soil accumulation in the west and a pit in the north-west, both dated to the 12th-14th centuries. From the lack of medieval activity across the site it is clear that the Carmelite Friary recorded immediately to the west did not extend across the development area.

The main build-up of deposits occurred in the post-medieval period, from the 16th century onwards. This may have involved disturbance of the underlying stratigraphy.

Archive: C.M.

28. Noak Hill, Weald View, Paternoster Row (TQ 5340 9405)

N.M.S./R.H.F.A.G.

Initial resistivity survey by N.M.S. produced inconclusive results. This was followed by an exploratory trench 4m long by 0.7m wide excavated by R.H.F.A.G. to a depth of 1m. This revealed a small crescent of dark earth underlying two levels of disturbed clay. Enlarging the area of excavation exposed the same two levels of disturbed clay, the upper layer containing numerous peg tile fragments. The lower layer contained large numbers of pottery sherds with few tile inclusions. These overlaid a wider spread of soot-stained soil, a deposit of burnt clay and two dumps of broken pottery subsequently identified as Mill Green ware. In total, nearly 50kg of tile and over 3,000 sherds of Mill Green pottery were recovered. This large number of wasters, together with the burnt clay deposit and soot pollution could indicate the presence of a pottery kiln site nearby.

Archive: R.H.F.A.G.

29. Rainham, South Hall Farm (TQ 535 818)

S. Foreman, E.C.C. (F.A.G.)

An archaeological fieldwalking survey in advance of gravel extraction on land to the east of South Hall Farm, Rainham, identified three potential prehistoric sites, though the variable state of the ground at the time of walking apparently resulted in a significant collection bias in favour of the more heavily weathered fields.

Site 1 (TQ 5379 8185C) was particularly well-defined by a concentration of worked flints, including a number of tools and cores that suggest a later Mesolithic/Early Neolithic origin. There was a notable preponderance of bladelet cores in this group. The significance of this scatter is emphasised by the absence of burnt flint in significant quantities. Both of the other sites identified included strongly marked burnt flint concentrations, and the survey area as a whole produced an exceptionally large quantity of the material. As burnt flint scatters are most commonly associated with Bronze Age and early Iron Age activity, their absence from Site 1 is broadly consistent with a later Mesolithic/Early Neolithic date.

Site 2 (TQ 5348 8171C) also appears to be well-defined by a concentration of worked and burnt flint. The concentration of burnt flint is likely to be somewhat exaggerated by the exceptionally high visibility of all find-types in field 27. The few diagnostic pieces of worked flint from this area include both later

Mesolithic/early Neolithic and later Neolithic/early Bronze Age types, but side scrapers of Mesolithic type are the most common artefact in this group.

The suggested later Mesolithic/early Neolithic date for these sites is interesting, given the presence of a middle Neolithic ring-ditch *c.* 300m to the east, close to the eastern bank of the 'Common Sewer' (TQ 542 818). The location of these sites along the banks of the 'Common Sewer' suggests that the stream may have served as a focus for later Mesolithic and Neolithic activity.

The existence of ***Site 3*** (TQ 5362 8198C) is in some doubt, as it corresponds closely with a dense concentration of post-medieval and modern material. This suggests that the collection of two sherds of prehistoric pottery in close proximity may be the result of extremely good finds visibility in this field, and therefore not a reliable indicator of activity of that period. A considerable amount of burnt flint was recovered in the same area, though the same factors may have affected the recovery rate. The only diagnostic flint tool to be found in the vicinity of Site 3 was a borer of Bronze Age type.

Roman material was present, but it was widely scattered and occurred in statistically insignificant quantities. There was slightly more medieval pottery, with sherds being recovered from adjacent runs in one case. However, the wide date range and wide spatial distribution of the material suggests that it is more likely to reflect agricultural use of the fields over a long period of time, than settlement activity. Post-medieval pottery was scattered across the field, but formed no obvious concentrations. Modern material occurred in very large quantities, concentrated mainly across the north-eastern side of the site. Such material probably derives from recent rubbish tipping along the line of the A13(T).

Archive: N.M.S.

30. Rainham, Viking Way (TQ 5208 8232)

M. Beasley, N.M.S.

Four trenches were excavated initially to evaluate the depth of deposits. Two of these revealed brickearth, with finds of two sherds of Neolithic/Bronze Age pottery, two pieces of burnt flint, and a waste flake, all recovered from stratified deposits.

Two further trenches were then dug to investigate the brickearth, revealing one post-medieval feature and natural features.

Archive: N.M.S.

31. Rochford, Westbarrow Hall Farm (TQ 863 898)

H. Brooks, H.B.A.S.

Fieldwalking survey in advance of brickearth extraction revealed a very clear concentration of prehistoric and Romano-British finds in the north-east corner of the survey area. There is a 3-hectare spread of prehistoric pottery and burnt flints with several significant groupings, and a 2-hectare spread of Romano-British pottery lying slightly to the north. Prehistoric struck flints are thinly spread across the whole survey area, and burnt flints are found over the whole survey area at concentrations well above the county average. One Roman brick had a dog's footprint.

Post-medieval and modern pottery and tile showed classic manure-spread patterns. There were very few medieval finds.

Archive: H.B.A.S., to go to S.M.

32. Rochford, Southend Airport, adjacent to Warner's Bridge (TQ 875 889C)

S. Foreman, E.C.C. (F.A.G.)

Part of a small Late Bronze Age (LBA) ditch was uncovered during an archaeological evaluation by trial trenching in the south-east corner of Southend Airport. It ran in a south-east to north-west direction and contained sherds of LBA pottery, pieces of perforated clay slabs, and debris (burnt flint and charcoal) from a possible hearth. A second, but much larger, ditch was also discovered in the same location during a follow-up excavation three weeks later. This ditch also ran in a south-east to north-west direction and its north-east side was cut by the LBA ditch previously mentioned. It contained no datable finds, however, and its full form and size was not established due to poor surface definition.

Archive: S.M.

33. Southend-on-Sea, corner of Prince Avenue and Rochford Road (TQ 8692 8797C)

R. Wardill, E.C.C. (F.A.G.)

Geophysical survey revealed a number of buried features. Several linear anomalies aligned with Prince Avenue and may represent early field boundaries. Other linear and pit-like anomalies may also be of archaeological interest but this is uncertain.

34. Springfield, Chelmer Village East (TL 738 079C)

C.M. Hearne, W.A.

The evaluation involved the excavation of 27 machine trial trenches. Two areas of particular archaeological interest were revealed:

1. An area of later prehistoric activity (probably late Bronze Age/early Iron Age) on the low ground close to the River Chelmer. These deposits are fairly well preserved and appear to exist within a palaeosol preserved *within* the overall sequence of colluvium on

the site. They are sealed by colluvium containing Roman pottery.

2. An area of earlier Roman (later 1st/2nd centuries AD) on the high ground in an area containing cropmarks. These features appear to be fairly poorly preserved in an area where colluvium does not occur and where overburden is relatively thin.

The actual nature of the former activity in both these areas is difficult to interpret but the finds and features appear more indicative of settlement than agricultural remains.

Archive: W.A., to go to Ch.E.M.

35. Springfield, Chelmer Village East II (TL 737 075C)

N. Oakey, W.A.

The second stage of this evaluation involved the excavation of four further machine trial trenches. All the archaeological features observed were related to modern agricultural activity, but small quantities of artefacts were recovered. These comprised: a small concentration of late prehistoric (probably late Bronze Age) pottery and worked and burnt flint within alluvial deposits on low ground close to the River Chelmer; and four Romano-British sherds and two pieces of worked flint on higher ground to the north-west of the evaluation area. There was a great variability within the naturally laid deposits and it is likely that alluvial deposits were present. A possible palaeo-channel was also recognised.

Archive: W.A., to go to Ch.E.M.

36. Springfield, east of White Hart Lane (TL 7305 0940)

E. Guttman, H.A.T.

Fieldwalking recovered a light scatter of prehistoric flint implements (mostly retouched flakes) and waste flakes. The broad spread of the flint is suggestive of more than one phase of activity, and the knapping characteristics are reminiscent of both the Neolithic and Bronze Age periods. No pronounced concentrations are readily apparent. There were no finds contemporary with known local sites of the Roman, Saxon or medieval periods. The most common finds were post-medieval tile.

Archive: H.A.T.

37. West Ham, Salway Road Cinema site, Stratford (TQ 385 845)

I. Hanson, N.M.S.

Trenches were excavated down into the natural fluvial deposits of a gravel river terrace, which showed evidence of possible periglacial activity. Overlying the natural deposits was subsoil formed through agricultural activity, possibly ploughing. Cut into this were a possible post-medieval rubbish pit, and several modern features relating to the construction of tenements on the site. The demolition of these tenements had caused some truncation of sub-surface deposits across the site.

Archive: N.M.S.

38. West Ham, 128 West Ham Lane/Arthington Road, Stratford (TQ 3924 8382)

C. Jarrett, N.M.S.

The eastern area of the site revealed a medieval surface with associated pottery. Further medieval deposits were removed by 17th- to 19th-century domestic building and horticultural activity. The western area of the site had been subject to terracing, which had probably removed any earlier activity.

Archive: N.M.S.

39. Witham, Maltings Lane (TL 815 132C)

A. Wade, E.C.C. (F.A.G.)

Twenty-two trenches were distributed across four main areas (A-D) identified by the fieldwalking survey as potential archaeological sites. Additional trenches were positioned to sample cropmark features and an existing undated earthwork known as the Pondholton Farm Enclosure (identified by Rodwell 1993, ESMR 14047).

The evaluation found extensive archaeological deposits dating to the Roman and Saxon periods in areas B and C, including a possible well, ditches, gullies, post holes and rubbish pits. Roman building material was a common find in Saxon deposits but no large structural features were encountered. This suggests the possibility of a more substantial building, probably of 3rd- to 4th-century A.D. date somewhere in the vicinity. The Saxon features included two possible sunken-floored buildings and a single cremation with evidence of an associated cemetery, in area D, some 250m to the south-east.

Potential prehistoric remains, including a cremation and post holes, were found in area A. A trackway cropmark to the south of area B may have prehistoric origins though Roman material was recovered from the upper fills. An X-shaped cropmark to the west of area D produced poor quality prehistoric and Roman finds.

A ditch which may mark the western boundary of the Pondholton Enclosure was located. The boundary could not be closely dated but stratigraphically it was later than the Saxon deposits which it truncated. There is circumstantial evidence provided by another ditch on the same alignment that the boundary was backfilled sometime in the late post-medieval period.

Previous Summaries: Bennett and Gilman 1996, 266
Archive: Bt.M.

40. Witham, Wood End Farm, Maltings Lane (TL 814 134)

A. Garwood, E.C.C. (F.A.G.)

The fieldwalking survey at the Wood End Farm site produced very little evidence of substantial archaeological remains, although scatterings of burnt and worked flint were found toward the north-east and eastern side of site. Small concentrations of both burnt and worked flint were recovered from one area, and flint waste and two cores were found in the immediate area. The presence of this material may be indicative of prehistoric activity in this area, but this can only be tentatively suggested as the assemblage was insubstantial.

Very little Roman pottery and no Roman tile was recovered, despite close proximity to other Roman sites in the area. The concentrations of post-medieval brick, tile and pottery relate to waste disposal: either dumps of building material by the field edge which has subsequently been drawn into the field; or as domestic debris spread on the field during manuring.

Archive: Bt.M.

41. Witham, 143/147 Newland Street (TL 8193 1424)

A. Garwood, E.C.C. (F.A.G.)

The evaluation identified small concentrations of medieval and early post-medieval activity on the site. Later post-medieval and modern activity was also present. No evidence of a medieval street frontage was encountered during the evaluation but medieval rubbish pitting and small boundary ditches were identified. The presence of rubbish pits along the street frontage suggests that no building activity occurred during the medieval period.

Archive: Bt.M.

42. Writtle, the Walled Kitchen Garden, Hyland House (TL 6865 0380)

S. Godbold, E.C.C. (F.A.G.)

This evaluation was undertaken as an initial stage in a proposed scheme for restoring the gardens. The aim was to locate the Victorian greenhouses and other horticultural structures in the walled kitchen garden, and to establish their character and state of preservation.

The foundations of two large heated greenhouses, each *c.* 4m wide by 19m long, were located, built up against the south-east facing wall of the garden. The main evidence survived as a series of massive brick piers supporting the front of the buildings, with solid brick walls at either end. The greenhouses were built in the early 19th century, but the interiors were radically altered at the end of the 19th century. Further south within the garden the remains of four free-standing greenhouses were identified, and these were dated variously from the early 19th century to the early 20th century. On the north side of the garden wall the foundations of a range of buildings, including a boiler house, were uncovered.

Archive: Ch.E.M.

Excavations

43. A13 Road Improvement, Purfleet Road, Aveley (TQ 555 799)

S. Foreman, E.C.C. (F.A.G.)

The present work arises from an evaluation of deeply buried Pleistocene deposits forming part of the Mucking formation, carried out in 1995 by the Field Archaeology Group, in consultation with Dr. David Bridgland (Durham University, Department of Geography) (Bridgland 1996). These deposits are thought to be stratigraphically equivalent to deposits at Sandy Lane Quarry, 700m to the north, which have produced complete straight-tusked elephant and mammoth skeletons, and other large mammal remains, and to other Thames terrace sites that have produced important lower Palaeolithic artefact assemblages. No artefacts were found during the evaluation, but environmental samples taken from the Pleistocene deposits suggested that artefacts, fossils and other environmental evidence were likely to be discovered during construction of the road cutting.

This view was borne out during a watching brief on initial groundworks for the road cutting. Well-preserved fragments of animal bone were noted over an area *c.* 35m^2 in extent, in a silty clay deposit on the north edge of the road cutting, *c.* 2m below the present ground surface, mostly occurring between *c.* 6.8 and *c.* 8.3m O.D.

Small-scale excavation was carried out in November 1996, concurrent with a continuing watching brief on the road cutting. At the time of writing, the finds are still being processed, but the presence of at least three species new to the published Aveley faunal assemblage can be confirmed (Lion, Giant Deer and Roe Deer). Other species found that have previously been recorded from Aveley include Elephant, Horse, Bison and Beaver. The distribution of the finds suggests that they occur in a layer c. 1.5m thick, over a wide area, the full extent of which is unknown. The recovery of additional species will hopefully help resolve the arguments which have surrounded the chronostratigraphic interpretation of the lower Thames terraces, and help define a recently recognised and still controversial Ipswichian interglacial (Bridgland 1994, Gibbard 1994).

The excavation was conducted in close consultation with several leading specialists in British Quaternary studies from the Natural History Museum, Durham University and Coventry University. It is hoped that a permanent section through the deposits will be established, to allow specialists to view the site at periodic intervals. English Nature is currently considering replacing the problematic SSSI at Sandy Lane Quarry, where access for specialists is currently impossible, with a new site on the A13 road cutting. It is hoped that further excavation work will take place early in 1997, prior to commencement of large scale earthmoving operations.

Previous Summaries: Gilman (ed.) 1993, 197; Gilman and Bennett (eds.) 1995, 240; Bennett and Gilman (eds) 1996, 262-3
Finds: Natural History Museum
Final report: Quat. Res. Ass.

44. Ardleigh, Elm Park (TM 055 286)
H. Brooks, H.B.A.S.
Excavation followed a watching brief on the stripping of a new access road, revealing multi-period remains. The remains were principally as follows: a late Beaker burial, consisting of a single unaccompanied pot in a rectangular pit; a series of Late Iron Age and early Roman field boundary ditches, in an apparent rectilinear form; finds of Late Iron Age/early Roman pottery, coming from the north end of the access road suggesting a possible centre of occupation near the house; a scattering of post holes; a single post hole containing a sherd of Saxon pottery; and various post-medieval features associated with the present house and garden.

A watching brief on the construction of a new wing to the house produced no ancient finds or features.

Archive: H.B.A.S., to go to C.M.

45. Basildon, St. Michael's Church, Pitsea (TQ 738 878)
R.H.F.A.G.
An investigation was undertaken to determine the possibility of this prominent, Thames estuary, hill-top site having served as a multi-period settlement site or religious centre. Three trial trenches yielded little to confirm its occupation before early modern times. Two late 4th-century Roman pottery sherds were recovered, and twelve sherds of Saxo-Norman pottery. This may suggest the presence of a Saxo-Norman church, especially as there are documentary references to a Pitsea manor, a parish and a church in the second half of the 12th century. Medieval evidence is sparse, with only finds of a small piece of 13th/14th-century floor-tile, seven 12th/15th-century pottery sherds, three pieces of 14th-century or earlier glass, and a burial which may be medieval as it lay beneath a 16th-century wall.

The church tower has been dated to the 16th century, and there are other pointers to the wholesale rebuilding of the church at this time. The church was again almost entirely rebuilt by the Victorians leaving only the tower untouched. Nearly all the archaeological evidence relates to this rebuild and was highly destructive of earlier deposits.

Although the church prospered for a while, it was eventually abandoned in 1983, and it is now cut off from the community it once served by the A13. It has been reduced to a ruin and only the tower apparently will be preserved. The churchyard was also surveyed, with well over 300 grave stones located, and the majority identified, so that there is a complete plan of the church and graveyard.

Archive: R.H.F.A.G.

46. Boreham, Airfield (TL 7447 1210)
R. Clarke, E.C.C. (F.A.G.)
The excavation investigated the remains of: a probable post-mill of late 12th- or early 13th-century date, with a crude base construction, comprising a central large pit (5m diameter and 1m depth) surrounded by a ring-ditch and possible bank or mound (18m total diameter); and two associated buildings, one a possible granary to the immediate south-east of the windmill and the other a large (14m x 7.4m) rectangular building with a central internal partition and several possible extensions to the north-east of the windmill and granary, possibly representing a domestic residence with attached barns or storage rooms. These are set within a large enclosure, probably a moat. This moat or enclosure ditch was 5m wide and *c.* 2m deep, enclosing a projected area of *c.* 100m^2. The ditches close to the windmill and granary produced the greatest quantity of artefacts, especially pottery, daub and animal bone, probably relating to the disuse of the site. Other finds include lava quern, shell, antler, iron and copper objects.

Previous Summaries: Bennett and Gilman 1996, 263
Archive: Ch.E.M.

47. Castle Point, Pantile Farm, Canvey Island (TQ 7652 8466)
R.H.F.A.G.
A full landscape survey of Canvey Island was initiated in early 1995, with an extensive fieldwalking programme in parallel with documentary study. As a result it was decided to carry out a limited excavation at the site of an abandoned homestead, Pantile Farm, in order to test the theory that the farm might have been built on a red hill promontory. No evidence for this was found. However the visible foundations of the farmhouse and outbuildings were surveyed, and three exploratory trenches were dug to locate suggested ear-

lier buildings to the north. No structures were found, but further documentary study has indicated an alternative site which will be investigated in 1997.

Archive: R.H.F.A.G.

48. Coggeshall, Houchins Farm (TL 871 235)
S. Chapman, for C.A.G.
See Shorter Notes, p. 292-3.

49. Colchester, Barbour Gardens and Tumulus Way, Gosbecks (TL 969 229)
C. Crossan, C.A.T.
The site lies opposite the northern boundary of the Gosbecks Archaeological Park. Excavations in advance of residential development revealed a group of nine late 1st- to 2nd-century A.D. inurned cremation burials. These were set approximately 70m apart from a 4m square enclosure containing a single centrally placed cremation accompanied by three vessels. The cremation group was subsequently cut by a substantial field ditch, to the north-east of which lay seven coffined inhumation burials dating to at least the 3rd century A.D.

Previous Summaries: Brooks, Benfield and Garrod 1995, 261-264
Archive: C.A.T., to go to C.M.

50. Colchester, Beverley Road, Lexden (TL 9800 2485)
J. Fawn, C.A.G./C.A.T.
The site of the tombstone of Longinus, discovered in 1928, was investigated in advance of residential development. The find spot is now occupied by a deep modern pit, presumably the result of the removal of the tombstone and/or excavation for the cremated remains. A scatter of stone chipping in the vicinity includes many of the missing carved fragments from the tombstone, including the cavalry officer's face and the fingers from the sphinx. The contexts of these pieces cast doubt on the commonly-held view that the tombstone was defaced and knocked down during the Boudican revolt in AD 60/61. A probable roadside ditch and part of the southern track of the supposed three-track road were also found.

Archive: C.M.

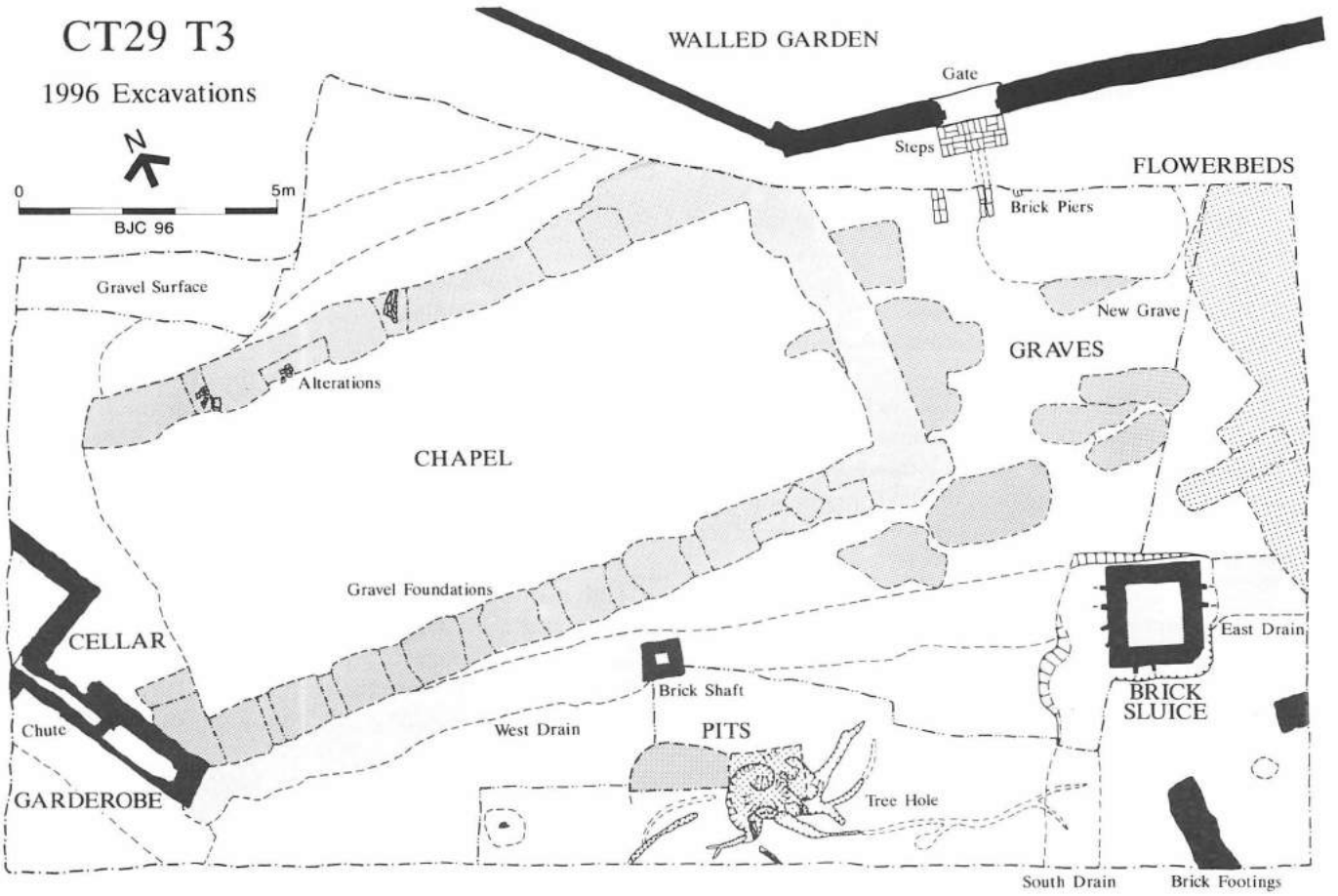


Fig. 2 Cressing Temple: 1996 excavations.

51. Cressing, Cressing Temple (TL 799 187)
T. Robey, E.C.C.
This year the efforts of the archaeology team at Cressing Temple have been divided between the preparation of the archive for donation to Braintree Museum and several educational events. Of the educational projects by far the largest has been the annual Field School, which involved a medium- sized area excavation. The excavation (CT 29; Fig. 2) centred on a re-excavation of the medieval chapel, the subject of an earlier investigation in 1980 by the Brain Valley Archaeology Society. Unfortunately, that work left certain questions unanswered while related evidence from our more recent work, for example in the walled garden, needs to be incorporated before the results can be published. This part of the monument has been heavily landscaped, reducing the surface around the chapel by as much as 0.5m and removing all traces of the walls and floors of the building. A number of graves cut by the foundation of the chapel are all that remain to show that this structure was preceded by an earlier building. This was probably constructed of timber incorporating an apse at the east end.

The trench also opened up new areas around the chapel, in one of which was found a brick structure that has helped to explain a complex network of drains and sewers dating to the time of Elizabeth I. The subterranean brick structure had been built around a timber mechanism, this being recognised from an impression of the grain of the original wood which was visible in the calcification around it. Four brick culverts radiated out from the structure, which was clearly a sluice to control the flow of water through the system. One of these runs past the Chapel, through a second structure thought to be a garderobe pit, then into a deep, vaulted culvert that ran under the house. By opening a gate, a flood of water could be sent along the selected culvert to flush out the garderobe pit and the drain. Surface water was carried into the main sewers by a network of smaller drains just below ground level to augment the flow through the system.

Other excavation projects have included the Visitor Centre development (see below), some test pits to investigate the subsoil near the Barley Barn where the plinth is subsiding, and a watching brief on the construction work of the Visitor Centre and arranging for the routing of services to avoid known or suspected archaeology.

Previous summaries: Gilman (ed.) 1989, 61-2; 1990, 130-1; 1991, 153; 1992, 103; 1993, 204-5; 1994, 249; Brown and Flook 1990; Robey 1993a, 1993b; Gilman and Bennett (eds) 1995, 247-9; Bennett and Gilman (eds) 1996, 267-8
Archive: Cressing Temple, to go to Bt.M.

52. Cressing, Cressing Temple Visitors Centre (TL 799 187)
A. Garwood, E.C.C. (F.A.G.)
Excavation at site CT 30 revealed the brick footings of a previously unknown post-medieval building and contemporary brick culvert (see also evaluation project no. 12). To the north of this a timber slot and row of post-holes appear to indicate the presence of another building. Stratigraphic and pottery dating evidence suggest a medieval date for this structure. Two parallel ditches aligned north-east to south-west across the area may be evidence of either a field system or trackway dating to the medieval period. Post-medieval post-holes representing changes in boundaries of the site were also present.

Previous summaries: Gilman (ed.) 1989, 61-2; 1990, 130-1; 1991, 153; 1992, 103; 1993, 204-5; 1994, 249; Brown and Flook 1990; Robey 1993a, 1993b; Gilman and Bennett (eds) 1995, 247-9; Bennett and Gilman (eds) 1996, 267-8
Archive: Cressing Temple, to go to Bt.M.

53. Grays, Stifford County Primary School, Parker Road (TQ 6055 7870)
D. Boden, E.C.C. (F.A.G.)
An excavation was carried out following a previous trenching evaluation in 1995 which had suggested the presence of medieval activity on site.

A group of large shallow pits for quarrying the natural clay were recorded in the north-west of the site, but contained very little dating evidence. Small amounts of worked flint, prehistoric pottery, including sherds dated to the Late Bronze/Early Iron Age, and Roman pottery were recovered from the pits. A series of shallow north-south striations which had been interpreted as ploughmarks in the evaluation on detailed examination were periglacial features.

Part of a medieval field system was recorded, consisting of a major north-south boundary ditch. A group of smaller east-west ditches to the west of this boundary formed a trackway and series of enclosures. The base of a small lime kiln overlay one of the east-west ditches, and waste material from the use of the kiln was deposited within the major north-south ditch after it had only partially silted. The major boundary must have remained in use after the ditches of the enclosures to its west had become disused. The lime kiln contained pottery dated to the 11th-12th centuries, with its disuse probably occurring towards the end of the 12th century. Part of a fence line dated to the 12th century, and a medieval pit were also recorded. Overall, the evidence suggests a predominantly rural site, with activity intruding into the west in the 11th-12th century, but with the main settlement focus outside the site area.

No later medieval features were present and the site presumably remained farmland. All features were sealed by a homogenous soil up to 0.5m thick, formed as a result of landscaping in conjunction with the construction of Belmont Castle in the 18th century, and the cultivation of allotments in the 20th century.

Previous Summaries: Bennett and Gilman (eds) 1996, 264
Archive: T.M.

54. Great Chesterford, Chesterford Hall, Church Street (TL 505 426)

T.E. Miller, G.C.A.G.

Four trial trenches were excavated to try and locate foundations of a wall surrounding the church, noted by A.E. Collins in 1978 in two locations beside the river and under the churchyard wall alongside Church Street, but not precisely located. The trenches were dug at right angles to the river close to the approximate locations reported by Collins. Although a few fragments of Romano-British pot were found in all four trenches none provided firm evidence of a robbed-out wall foundation. Trench 2 contained a gully backfilled with late medieval roof and floor tiles, some post-medieval decorated floor tiles, and a large quantity of loose mortar.

A separate dissociated excavation close to the south wall of the churchyard exposed either the end of a gully or a rubbish pit. It contained Romano-British artefacts including a 1st-century Vespasian bronze coin, part of a samian mortarium bowl and other items ranging from the 2nd to 4th century, similar to those found in gullies and pits within the churchyard during the 1986 excavation.

Archive: G.C.A.G., to go to S.W.M.

55. Great Chesterford, Vintners site, Newmarket Road (TL 5031 4271)

A.J. Wade, E.C.C. (F.A.G.)

An excavation was carried out in advance of an office development on the southern periphery of the Late Roman walled town. It occupies an area within the suggested boundaries of the towns western (Roman) and southern (Late Iron Age, Roman and Early Saxon) cemeteries.

Previous archaeological work in the immediate vicinity of the site (by G.C.A.G.) recovered a quantity of Mesolithic worked flint from a possible working floor. Later work (also by G.C.A.G.) recorded what was interpreted as a Roman road with side ditches running through the area. The location and detailed recording of this feature was one of the aims of this excavation.

The excavation area was essentially L-shaped with the foot of the letter extending towards the southern bank of the River Cam or Granta and the back running parallel to it. Two extensions were also stripped of topsoil to the west and north of the main area. Additionally five trenches (identified by letters A to E) were dug by machine in order to clarify problematical areas of stratigraphy.

The middle of the main area had been completely eviscerated by two 19th-century flint quarries to a depth of 1.1-1.3m. To the north and south of the western quarry dense areas of archaeological deposits had survived. To the south of the quarry these included ditches, gullies, pits and a short length of mortared wall foundation of Roman date. The northern trench extension was also densely packed with archaeological deposits, including an oval or sub-rectangular area of large stones (perhaps cobbles) and associated linear features. These features were recorded *in situ* as this area was surplus to the eventual planning consent. An abundance of surface finds from this area provided a provisional date of Late Roman (3th-4th centuries) for these deposits.

The north-eastern part of the excavation area running down to the river bank was covered by a thick layer of re-deposited subsoil, perhaps associated with river flooding. Trenches D and E were dug through this layer and revealed underlying archaeological features sealed beneath. Trench D contained a sequence of ragged stony layers and poorly defined cuts. Pottery of Late Iron Age date (1st century A.D.) was recovered from this area. A substantial pit was investigated in Trench E of possible Late Roman date of 3th-4th century A.D. A variety of material was recovered from this feature including pottery, animal bone, oyster shell and tile fragments. A large post-medieval disturbance and the presence of a substantial sewer pipe (live) had destroyed part of the eastern side of this area. The depth of the trenches and the proximity of the river ensured that for most of the time the northern ends of the trenches were flooded.

A single sherd of Saxon pottery of 5th-6th century A.D. was recovered from a post-hole located towards the south of the site.

In addition to the two large 19th-century flint quarries mentioned previously, a variety of other late post-medieval features were found, mostly towards the south of the excavation area. Many of these contained substantial quantities of residual Roman and Late Iron Age pottery which has made the identification and dating of these features difficult.

The Roman road previously identified by the G.C.A.G. was not found although three of their small test pits were located. It was clear that all three test pits cut the upper layers of one of the 19th-century quarries. The layers within the quarry were complex and contained quantities of residual Roman pottery. It is probable that these factors combined with the small size of the test pits resulted in misinterpretation of these fills.

One last feature was found to be of interest, a Second World War spigot mortar emplacement situated in the northern trench extension. It is believed to have originally been one of a group of three which flanked the river crossing.

Archive: E.C.C., to go to S.W.M.

56. Great Maplestead, land between Limewood and Rafters, Church Street (TL 8080 3463)
H. Brooks, H.B.A.S.
Excavation trenches covered the footprint of the proposed house. These were found to partly coincide with previous excavation trenches of 1974-75. Work therefore concentrated on untouched areas in the driveway trench. A large medieval ditch was found, 3.2m wide and 0.7m deep, some 5m from the road frontage. This ditch was recut later in the medieval period. Other features included: a large and shallow cut, possibly a quarry; and several post holes or small pits. During the post-medieval period the site appears to have been under cultivation. Finds included small groups of medieval pottery and bone.

Archive: H.B.A.S., to go to Bt.M.

57. Great Tey, Teybrook and Warren's Farms (TL 8887 2516)
A.J. Fawn, C.A.G.
Two sections were dug across the projected line of a Roman road running from the A120 northwards towards Great Tey, at the point where the cropmarks disappear. It would appear that evidence for the road has been removed by a later feature, possibly representing a fish pond or mill pond, associated with the Roman River. A ditch visible on aerial photographs was also cut by the trench. The only associated pottery fragment found so far is thought to be pre-Roman.

Archive: C.A.G., to go to C.M.

58. Horndon-on-the-Hill, Village Hall (TQ 6699 8335)
D. Boden, E.C.C. (F.A.G.)
An excavation was carried out in advance of construction of a new village hall, after a trenching evaluation in March 1996 (see 21, above) had identified medieval stratigraphy surviving adjacent to the medieval market area. The excavation investigated a wider area around the two main evaluation trenches in the centre and east of the site, and covered the entire footprint of the new building. Because of constraints on time and funding, a policy of sample excavation was adopted, with a bias towards recording the better preserved sequences at the street frontages, and linking the sequences recorded in the evaluation trenches. As a result the excavation was extended right up to the High Road frontage in the east and the Mill Lane frontage in the south.

No evidence was found of an earlier Saxon settlement or the postulated late Saxon *burh*, the earliest activity occurring in the 12th century. The sequence of ditches along the Mill Road frontage along the south of the site can be dated to the 12th to mid 14th centuries, with the sequence of recuts pushing the frontage southwards, although the late medieval frontage line still lay a little to the north of the modern frontage. A further sequence of ditches recorded in the north-west of site are dated to the 13th century, and crossed the site on a north-east to south-west alignment. If these represent plot boundaries, the layout at the rear of the plots must have been quite irregular.

At the High Road frontage along the east side of the site, at least four building phases were recorded, dating from the early 13th to 16th centuries. The initial phases consisted of post-hole structures. A late medieval building, dated to the 15th to 16th centuries, is defined by beam slots. The latest in the sequence, dated to the 16th century, was constructed on very large posts, and appears to be open-fronted with the gravels of the market area extending across the frontage line. In the later medieval period the Mill Road frontage ditches were levelled over with dirty gravel, and the frontage was marked by a fence line. The area immediately behind the buildings was investigated in detail during the evaluation, when a complex of intercutting pits was recorded, dating from the 12th centuries onwards. The excavation recorded further pits in backland areas, but also further post-hole structures.

Overall, the excavation has enabled the topography of the site, and the sequences at the two major frontages to be understood, but more detailed understanding of building plans and plot layout must await full post-excavation analysis.

Archive: T.M.

59. Rettendon, Hall Farm (TQ 772 965)
M. de Bootman
Excavation continued through 1996 and two features previously excavated in 1967 were re-investigated. It was discovered that Kiln 1 had been totally destroyed by the 1967 excavation, only leaving its construction pit for re-examination. Pits identified to the west of the previously excavated kilns were found to be one large pit which had been cut by modern drainage gullies. This could be a stoke-hole which adjoins an unexcavated kiln-like feature to the west.

Previous Summaries: Bennett and Gilman (eds) 1996,
Archive: Ch.E.M.
Final Report: J. Roman Pottery Stud. or Essex Archaeol. Hist.

60. Stanway, Gosbecks Archaeological Park (TL 9675 2250)
P. Crummy, C.A.T.
An east-west trench was dug across the Romano-Celtic temple to complement the north-south one dug in 1995, and more work was done on the section through an adjacent part of the temple ditch. In addition, two trenches were dug diagonally across the north-east and

south-east corners of the portico, and sections were cut through most of the foundations thus exposed. Most of the foundations proved to have been robbed out and there were no surviving floor levels in the portico. The aim of the work is to recover accurate ground plans of the temple and portico to establish how well it might be possible to reconstruct the buildings.

Archive: C.M.

61. Stanway, Stanway Hall Farm (TL 9560 2250)
P. Crummy, C.A.T.
Excavations continued with the investigation of Enclosure 5 and some limited work on Enclosure 2. The middle of Enclosure 5 proved to be occupied by a smaller version of the so-called 'sub-enclosure' in Enclosure 4. Remains of a substantial wooden mortuary chamber lay just to the south of it, finds from which were even more broken up and more scarce than in the chambers in the other enclosures. There were at least three secondary burials inside the enclosure. The grave goods in all three had been buried intact. One burial included five or six brooches and a small glass jar. Another included a gaming board with the pieces in position, a small set of surgical instruments, a copper-alloy strainer bowl, a pottery dinner service, a Spanish amphora, a flagon, and a samian bowl. Both burials date from the AD 50s. Investigation of Enclosure 2 was mainly directed towards its ditch where two currency bars were found.

Previous Summaries: Priddy (ed.) 1988, 270; Gilman (ed.) 1989, 168; 1990, 135; 1991, 159; 1992, 108; 1993, 205-207; Crummy 1992, 1-5.
Archive: C.M.
Final Report: to be decided.

62. Upminster, Hunts Hill Farm (TQ 566 831)
P. Greenwood, N.M.S.
After what was thought to be the final year's work on the site, it was found that a small area of the quarry, *c.* 65m by 35m, had been omitted in 1995. This area was stripped of topsoil and cleaned, and then subject of a limited examination.

Extensive prehistoric evidence was found with a major element belonging to the late Bronze Age Plain Ware phase. Features included one, possibly two, double-post-ring round-houses, several pits, and post-hole alignments. One pit contained the largest assemblage of pottery of this period from one context found in the area, with 14 or more identifiable vessels with large diagnostic sherds. There is a sub-rectangular enclosure with sides measuring *c.* 16m which appears to be the same date. Six or more circular, penannular or interrupted gullies with diameters in the 3 – 4m range seem to be prehistoric, probably also late Bronze Age. These enigmatic features are to be investigated.

There is much evidence of 2nd- to 3rd-century Roman activity in the form of field-ditches, post-fast structures, and pottery, indicating that this part of the site is near the main focus of settlement.

Apart from a post-medieval ditch and a few Saxon and early medieval sherds, there is little evidence for later activity. Limited work on the archaeology is to be carried out in early 1997.

Previous Summaries: Gilman (ed.) 1991, 159; 1992, 108; 1993, 207; 1994, 252; Gilman and Bennett (eds) 1995, 251-2; Bennett and Gilman (eds) 1996, 269-70; Greenwood 1986; 1992.
Archive: N.M.S. or suitable repository
Final report: N.M.S. monograph.

Watching briefs

63. Barling Magna, Barling Marsh Phase 2, Area B (TQ 939 903)
M. Ingram, E.C.C. (F.A.G.)
A watching brief was undertaken during topsoil stripping as part of an ongoing programme of work. No archaeological features were present and the only visible ground disturbance consisted of recent field drains. The survey area was not reclaimed from the sea until the 18th century, and it is possible that archaeological features, undisturbed by ploughing and topsoil stripping, remain buried by alluvial deposits.

Archive: S.M.

64. Colchester, 79 Maldon Road (TL 9892 2461)
C. Crossan, C.A.T.
A near complete 2nd-century two-handled lidded pot containing cremated bone was recovered by contractors engaged in underpinning the front of a bungalow. Although site conditions restricted close trench inspection, the find spot appeared to lie close to natural sand, beneath a total of 1.5m of post-Roman accumulation and modern make-up.

Archive: C.A.T., to go to C.M.

65. Colchester, former Brights P.H., Straight Road, Lexden (TL 9645 2486)
S. Benfield, C.A.T.
The west edge of the Lexden Triple Dyke central ditch was observed in footings for new houses over a length of 40m and *c.* 1m below the present ground level. Contractors removal of a deeper modern disturbance showed the ditch to be in excess of 0.7m deep. The alignment of the ditch appears to be at a slight angle in relation to Straight Road.

66. Great Leighs, Leez Priory Farm (TL 7008 1845)
H. Brooks, H.B.A.S.
A watching brief was maintained on the conversion of the west barn, and associated works. Removal of the concrete floor inside the barn revealed the abraded bases of a few brick walls, and a patch of flint cobbling floor. These may represent animal stall dividers and flooring. Outside the barn, a pipe run penetrating the wall west of the barn showed that it had been recently rebuilt on a concrete footing. Elsewhere the ground was much disturbed, and other pie runs showed modern deposits lying directly on natural clay. Of greatest interest was a disturbed section of a post-medieval brick culvert. The site is crossed by several of these culverts, which are presumably contemporary with the building of the mansion in the late 16th century.

Archive: Ch.E.M.

67. Great Maplestead, water pipeline (TL 803 331 - TL 813 366)
A. Garwood, E.C.C. (F.A.G.)
No conclusive evidence of medieval or earlier activity was encountered during the monitoring of the groundworks associated with the renewal of a water pipeline at Great Maplestead. Of the areas monitored Area 1 uncovered no activity of archaeological interest. Trench A in Area 2 identified a hollow way which was interpreted as an earlier indeterminate phase of Church Street. Area 3 identified seven features including four ditches. All of the features produced no diagnostic dating material but cartographic evidence indicates that the four ditches certainly predate 1777.

Archive: Bt.M.

68. St. Osyth, Cemetery extension, Clay Lane (TM 128 165)
H. Brooks, H.B.A.S.
A watching brief was maintained during topsoil stripping to observe a cropmark feature (a double ditched trackway) which should have crossed the site. There was no trace of this and only one archaeological feature was observed: a 2.5m long cut along the east edge of the east trench. This probably represents the western edge of a roadside ditch, which had naturally silted up during the last couple of centuries. Finds consisted of a few scraps of tile, presumably post-medieval.

Archive: H.B.A.S., to go to C.M.

69. Stanway, Colchester Zoo (TL 9485 2185)
S. Benfield, C.A.T.
A watching brief following topsoil stripping for new animal enclosures west of Colchester Zoo produced a small assemblage of early Neolithic flint and a very small quantity of Roman material. No features were encountered.

The early Neolithic flints occurred over the whole of the two hectare site, but were concentrated towards the southern end above the slope to the Roman River, where gravel subsoil gives way to sand. The assemblage consists of 36 worked flints comprised of one blade core; five flake cores/core fragments; four blades; and flakes, two with evidence of blade removal. The Roman finds consisted of one fragment of tile, two of brick, and a piece of lava quernstone.

Archive: C.A.T., to go to C.M.

70. Willingale, Shallow Bridge, Birds Green Lane (TL 590 090)
D. Gadd
A watching brief revealed three post holes 10m from the edge of the River Roding. Two of the post holes contained burnt stone inclusions, and the third contained six sherds of Late Bronze Age pottery.

Archive: D. Gadd

Survey

71. Aerial Survey
D. Strachan E.C.C. (A.A.G.)
See this volume, pp. 186-95

72. Blackwater Estuary Management Plan Archaeological Programme
D. Strachan, E.C.C. (A.A.G.)
See this volume, pp. 195-6

73. Cropmark Enclosures Project
N. Brown and S. Foreman, E.C.C.
See this volume, p. 196

74. Historic Towns Survey
M. Medlycott, E.C.C. (A.A.G.)
See this volume, pp. 196-7

75. Industrial Archaeology Survey
S. Gould, E.C.C. (A.A.G.)
See this volume, pp. 197-200

76. Orsett, Causewayed Enclosure (TQ 653 806)
A. Oswald, R.C.H.M.E.

A detailed aerial photographic transcription at 1:1250 scale of the unexcavated part of the enclosure has been carried out as part of the R.C.H.M.E. project to record industry and enclosure in the Neolithic. The transcription has produced an accurate plot of the causewayed enclosure and the overlying later prehistoric remains in its vicinity.

Archive: R.C.H.M.E.

77. Wimbish, Tiptofts Manor, Sewards End (TL 569 374)

M. Brown, R.C.H.M.E.

An earthwork survey was carried out at the request of English Heritage. The medieval landscape at Tiptofts centres around the moat surrounding the Manor House. Several ponds, five of which still contain water, are preserved in the pasture fields surrounding the moat, and a brick dovecote also survives nearby; the remains of an 18th/19th-century farm lie to the north. Other features present in the landscape include a possible pillow mound, the remains of field boundaries, some prominent ditches, as well as some less easily categorised earthworks.

The surviving remains and the documentary evidence reveal that this was a manor of moderate size and status throughout its history. The moat is probably contemporary with the earliest phase of the present manor house. This is itself poorly dated, but in broad terms, a construction date between the late-12th and mid-14th century would be likely.

The moat, enclosing 0.16ha, is typical of Essex examples. It has undergone minor alterations over time but is essentially in its original form. Garden compartments and other buildings are known to have existed in the 18th century from documentary evidence, and it is likely that the farm replaced an earlier one, perhaps on the same site.

The fishponds (eight in total, though in 1746 there were eleven) are located mostly along the edges of the fields surrounding the moat. Most are rectangular and located in pairs. This elaborate system of fishponds represents a considerable investment in construction and upkeep, and may hint a greater degree of prosperity and status than is otherwise evident from the surviving field and documentary evidence.

Previous Summaries: Bennett and Gilman (eds) 1996, 270

Archive: R.C.H.M.E.

78. World War II Defences Survey

See this volume, pp. 200-1

Building Survey

79. Alresford, Alresford Church (TM 0648 2065)

A. Garwood, E.C.C. (F.A.G.)

A photogrammetric survey was undertaken of the remains of a ruined church to the south of Alresford. The analysis of the fabric combined with the information gathered from the survey identified four different periods of major alteration and extension. The only surviving remnants of the original church, thought to date from the 12th century, were parts of the west end and northern nave wall. A subsequent extension of the church eastward, predating the 14th-century rebuild, can be observed in the fabric of the north wall. Enlargement of the nave and chancel occurred in the 14th century with the insertion of the windows along the nave, chancel and both east and west ends. The 19th century saw the addition of the south aisle, the vestry and the porch.

Archive: C.M.

80. Beaumont-cum-Moze, Beaumont Quay (TM 190 240)

P. Pattison, R.C.H.M.E.

Following a request from E.C.C., a survey and photographic recording was carried out on this 19th-century coastal trading quay. Research indicates that Beaumont Quay operated a local agricultural, coal, lime and timber trade from around 1832 until *c.* 1925. For much of this time the quay was operated by a tenant of the Guys Hospital estate, based on Beaumont Hall, using sailing barges on an artificial navigation, Beaumont Cut.

An overall survey was carried out at 1:1000 scale (Fig. 3), supported by plans and sections of two surviving buildings, a storehouse and lime kiln, at 1:100 scale. Comprehensive photographic recording of the site included record of a spritsail barge, the "Rose" (of Maldon), which is hulked near the remains of the stone and timber quay.

Archive: R.C.H.M.E.

81. Coggeshall, Gardner's Brewery, Bridge Street (TL 8499 2243)

H. Cooper-Reade, E.C.C. (F.A.G.)

Gardner's brewery is situated behind the former Portobello Inn and is separated from Bridge House by a small courtyard. The earliest reference to ownership of the site by the Gardners is on the 1827 Tithe Map, and a Gardner is first mentioned as brewer and maltster in the 1839 Directory. The brewery finally closed in 1943, after being in disuse for several years.

The brewery complex comprises a two and three-storey part brick-built and timber-framed brewhouse, a range of workshops/stores, and two stable units. The brewhouse and principal storage rooms for the dry

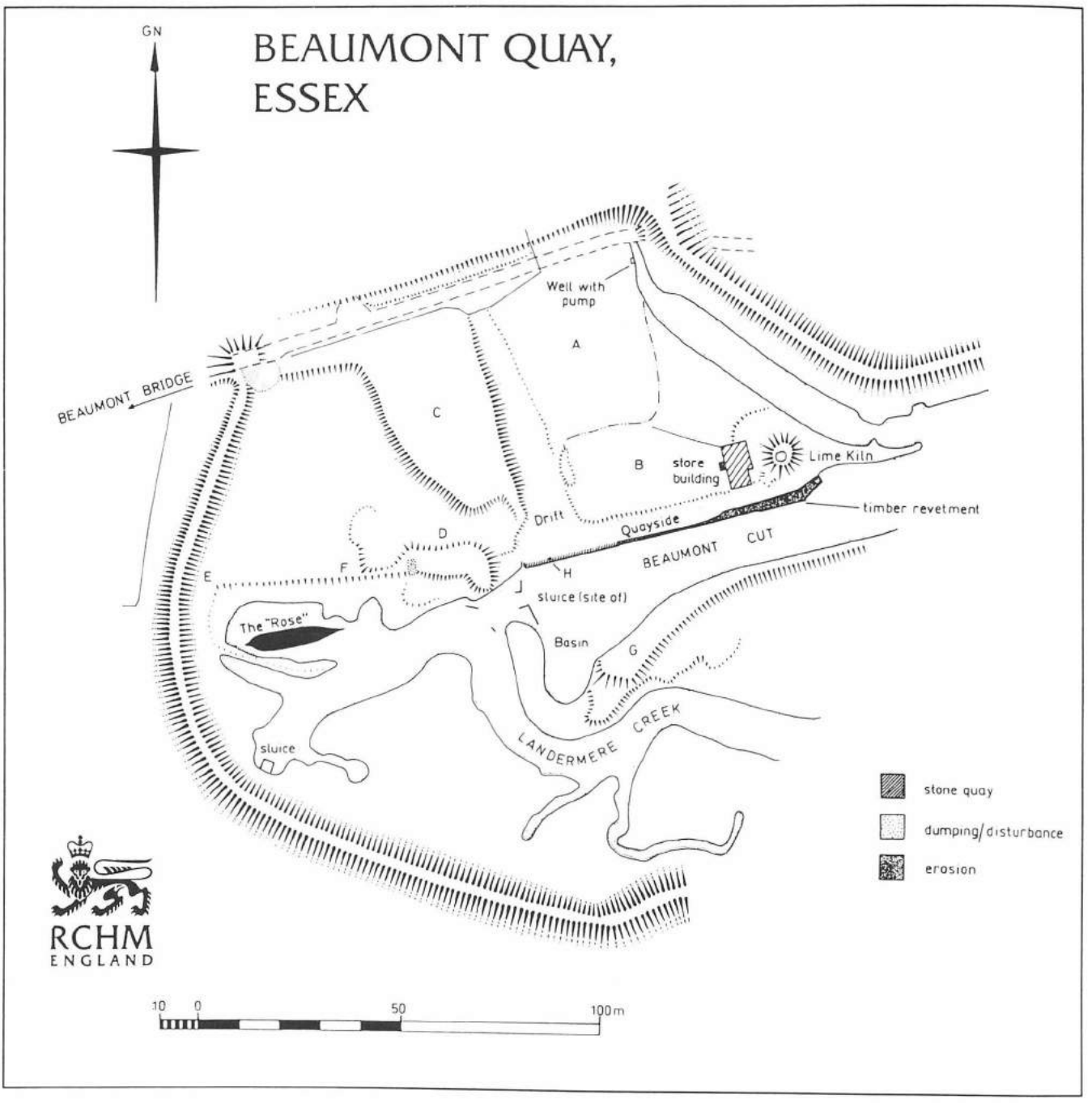


Fig. 3 Beaumont Quay, RCHME plan surveyed at 1:1000 scale, © RCHME Crown Copyright.

ingredients form the main range of buildings fronting the courtyard. Access to the rear of the brewery complex is via a covered walkway and yard area, above which there is a first-floor storage area, now converted to a workshop. "No 2 Wine Cellar" and another room, probably connected with storage of the finished product (or office and sales) form the eastern edge of the covered walkway and yard area. The brewhouse contains a complete brewing pan, a slate water tank in the roof, a Yorkshire Slate Square, several grist barrows and other objects connected with the brewing process. The whole area is surrounded by a network of pipes which controlled the flow of liquids around the building. The position of three circular tun casks can be identified at first floor level, and the footprint of the possible mash tun can be seen adjacent to the brewing pan. Other original features include the door and window fittings and some of the signing denoting room functions. Several timber outbuildings and a stable block are located to the rear of the brewery.

The brewery is a rare surviving example of a small family-run brewery. The technological fittings, door signings and original objects offer a rare chance to fully record the brewing process and relate each room to its original function. The Yorkshire Squares, used in the fermentation process, are rare survivals of the 19th-century brewing industry and no other examples are known in East Anglia. A small wheeled slate tank adjacent to the larger ones is probably unique.

The site was fully planned and photographed, but full internal survey was not carried out due to the presence of asbestos. Further recording will take place if planning permission is granted for conversion.

Archive: E.C.C.

82. Foulness, Priestwood, Eastwick and Tree Farms (TQ 999 923, TR 018 922, TR 026 932)
R. Crump, F.C.A.S.
During 1996 three granaries were surveyed at the above farms. All three are constructed of deal and each has a slate roof. The Priestwood granary has weatherboard cladding, whereas those at Eastwick and Tree Farms are clad in corrugated iron. Originally these two would also have been weatherboarded. Internally, the granaries at Priestwood and Eastwick still have the grooves and original boards used to segregate the crops. The average size of the three granaries externally is 24ft long, 14ft wide, and 13ft high, each standing on a series of staddle stones. The building type is compatible with the late 18th/early 19th century.

It is probable that Foulness would have supplied an increased demand for cereals during the Napoleonic Wars. Most of the farms on Foulness would have erected granaries at this time and they would have continued in use up to the 1960s and the onset of mechanised farming. Many have now been demolished, and the granaries at Priestwood and Eastwick are in a state of dilapidation. The granary at Tree Farm has been much altered internally, but is still in use as a farm storage building.

Archive: F.C.A.S.

83. Heybridge, St Andrew's Church (TL 855 081)
M. Earnshaw, M.A.G.
The graveyard survey of churches in Maldon District has continued with the parish church of Heybridge. The position and type of marker, and the inscription has been recorded for each of the 115 graves.

Archive: M.A.G. and Thomas Plume Library, Maldon

84. Maldon, cellar survey (TL 850 070C)
A. Cox, M.A.G.
Up to 75 cellar sites have been identified, of which 44 have been surveyed in detail. This consists of a photographic record, details of construction, size, period, building type, and any other relevant information.

Archive: M.A.G.

85. Southend-on-Sea, The Kursaal, Eastern Esplanade (TQ 891 851)
R.A. Peck, The Rowallan Group
Recording involved the foyer, tower and dome, offices, bars, various ante-rooms, and areas which have been partially demolished. The Kursaal has had a complexity of usage through its life and this is reflected in many alterations to the structure. The main structure consists of a steel framework and brick skin with bathstone patterns introduced into the design. This has not changed since the building opened in 1901. Internally, the most significant area is the foyer with art-deco columns and decorative fibrous plasterwork (Plate 1). The centre of the foyer is dominated by a stained glass dome roof which is housed in the tower. Externally, the style is predominately Victorian, crossing to art-deco internally, and the building possesses an aura of dominance and fun in tune with its purpose.

86. Takeley, Railway Station (TL 562 210)
H. Cooper-Reade, E.C.C. (F.A.G.)
See Shorter Notes, p. 00-00.

87. Waltham Abbey, Nitro-glycerine Washing House, South Site, Quinton Hill (TQ 383 996)
S. Foreman, E.C.C. (F.A.G.)
A recording brief, carried out on the Washing House of the Waltham Abbey Royal Gunpowder Works South Site nitro-glycerine factory, included a survey of the building in plan and section, and detailed photographic and video coverage.

The Quinton Hill plant was built in 1891, copying the design of the Nobel plant at Ardeer, near Cologne. It formed part of the first government cordite factory in the country. As the only building surviving substantially intact from the early factory, the Washing House is a historic building of national importance. It is exceptionally well-preserved, retaining many fixtures and fittings from the turn of the century, though most of the extensive lead fittings have been stripped out. The present structure was built in 1894, after a disastrous explosion in May of that year destroyed the original Washing House.

The Washing House consists of a free-standing, circular, timber building, surrounded by an earthwork traverse, revetted on the inside by a brick wall. The traverse is pierced by a brick-vaulted entrance tunnel and three smaller conduit tunnels. The two tunnels to the north carried nitro-glycerine from the two nitrating houses along lead-lined gutters. A section of the wooden shelf on which the gutter was carried survives in the

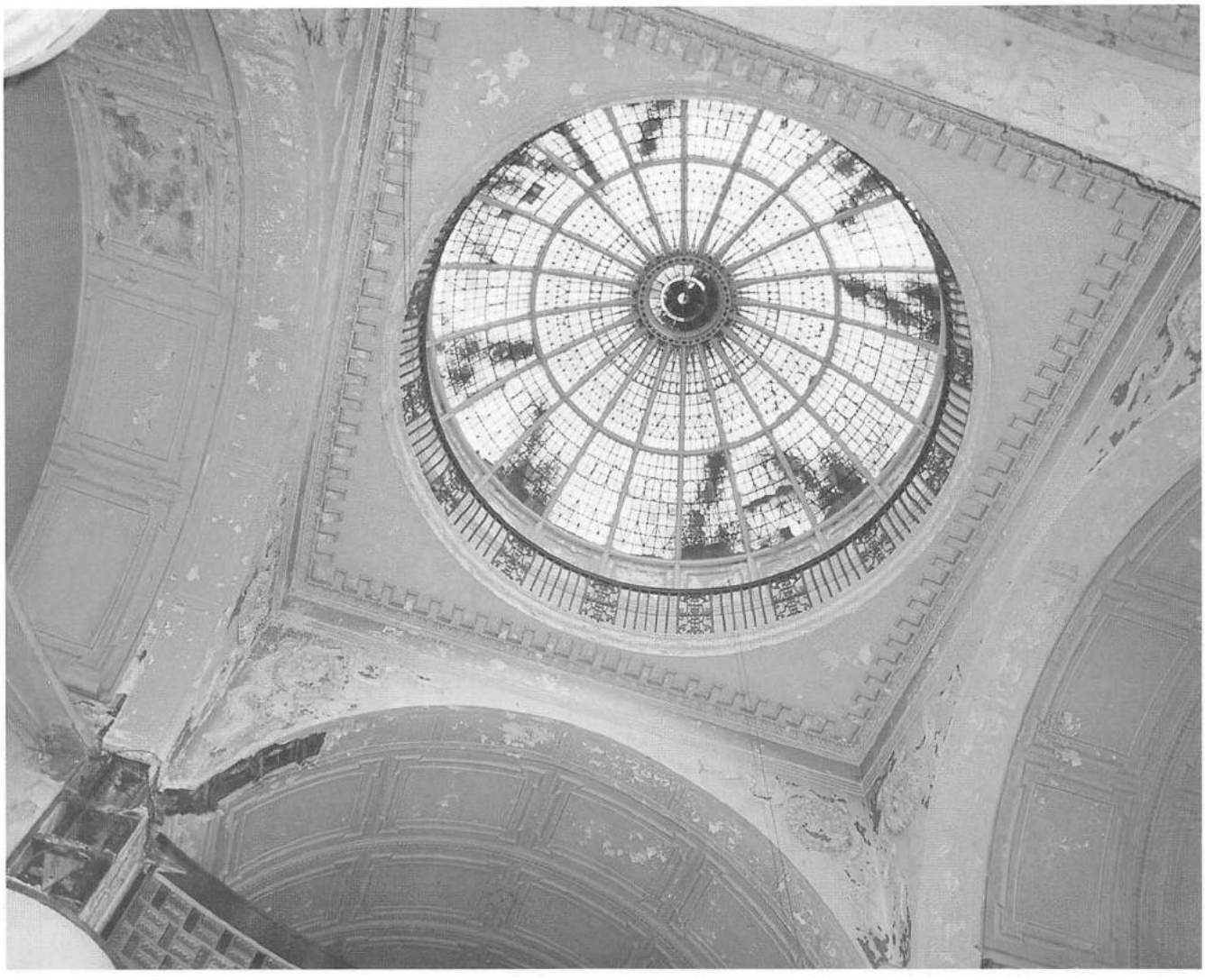


Plate 1 Glass dome and detail of plastering, the Kursaal, Southend.

north-west conduit tunnel. Both washing tanks have survived inside the Washing House, though neither is *in situ*, and their lead lining has been removed. Immediately to the south of the Washing House is a circular, brick-lined pit, which is the foundations of the Junction House, built after the 1894 explosion.

Previous Summaries: Bennett (ed.) 1996,
Archive: E.F.D.M.

Geophysical Survey

88. Great Chesterford, Roman fort and town (TL 5025 4305C)
R. Wardill, E.C.C. (F.A.G.)
Investigation at the centre of the Roman settlement identified substantial archaeological remains indicative of fort and later town development. They consisted of road, possible spread of building materials indicating structures, pits, and a large circular feature possibly of prehistoric origin. The survey was unable to confirm the location of defences associated with the southern perimeter of the fort. This would be expected if the ditches of the short-lived fort were backfilled prior to the expansion of the Roman town.

Archive: E.C.C.

89. Great Sampford, Free Roberts Farm (TL 638 363)
P.J. Cott
A resistivity survey was carried out of a field which has previously produced large quantities of mainly Roman finds through fieldwalking and metal detecting. The survey results showed no obvious building foundations, but possibly a long line representing a scatter of brick and tile.

90. Great Tey, Warrens Farm (TL 8894 2434)

P.J. Cott, for C.A.G.

Both resistivity and magnetometry were used in order to try and locate a Roman villa which had been excavated in the 1950s and 1960s. The resistivity survey, made on a very dry soil just after harvest, showed only ridge and furrow patterns. The magnetometry survey was more promising, showing a number of ditches, some parallel to each other. No conclusive evidence of the presence of a building was found.

Archive: C.A.G.

91. Pleshey, Hill House, Back Lane (TL 664 146)

P.J. Cott

Resistivity survey revealed the plan of the original medieval church, showing as a rectangular building on an east-west alignment. The building stops short at the edge of the survey area and may continue further to the east. The lines showing are probably masonry foundations which have not been completely robbed in antiquity. The building dimensions are *c.* 18m east-west and 15m north-south. There appear to be two aisles, the northern being 3m wide, the southern 4m wide. There is the suggestion of possible buttresses at the west end and in the south-east corner.

92. Stanway, Gosbecks Archaeological Park (TL 968 228)

P.J. Cott, for C.A.T.

Magnetometer survey was carried out of the area inside the great ditch of the Romano-British temple, to complement previous resistivity survey. All the known features of the temple were recorded, including the double portico, the *cella* and the great ditch. It was shown the great ditch is not a square, and neither is the double portico, and the great ditch does not sit centrally within the portico foundations.

Abbreviations

Bt.M.	Braintree Museum
Ch.E.M.	Chelmsford and Essex Museum
C.A.G.	Colchester Archaeological Group
C.A.T.	Colchester Archaeological Trust
C.M.	Colchester Museum (formerly Colchester and Essex Museum)
Cw.A.T.	Cotswold Archaeological Trust
E.C.C. (A.A.G.)	Essex County Council (Archaeological Advisory Group)
E.C.C. (F.A.G.)	Essex County Council (Field Archaeology Group)
E.F.D.M.	Epping Forest District Museum
F.C.A.S.	Foulness Conservation and Archaeological Society
G.C.A.G.	Great Chesterford Archaeology Group
H.A.T.	Hertfordshire Archaeological Trust
H.B.A.S.	Howard Brooks Archaeological Services
H.M.	Harlow Museum
M.A.G.	Maldon Archaeological Group
N.A.	Northamptonshire Archaeology
N.M.S.	Newham Museum Service (formerly Passmore Edwards Museum)
R.C.H.M.E.	Royal Commission on the Historical Monuments of England
R.H.F.A.G.	Rochford Hundred Field Archaeology Group
S.M.	Southend Museum
S.W.M.	Saffron Walden Museum
T.M.	Thurrock Museum
W.A	Wessex Archaeology

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Historic buildings, notes and surveys 1996

D.D. Andrews (ed.)

Introduction

The following reports include surveys done by the staff of the Essex County Council Historic Buildings and Design Section in the course of development control work on listed buildings in the county, as well as recording carried out by members of the Essex Historic Buildings Group and the Essex Architectural Research Society.

A new computerised database of the Department of National Heritage lists of buildings of special architectural or historic interest prepared by the County Council enables us to have a fuller picture of the historic buildings of Essex. Only the basic features of individual buildings have been entered, notably type, building materials and date, but this does make it possible for the first time to produce quantitative assessments of structures of different types and period. This will be invaluable both for research and for ensuring that conservation work is accurately targeted.

A flavour of the potential of this new resource can be seen from the following numbers of listed domestic buildings that exist for the period 1200-1700:

13th century	23
14th century	156
15th century	552
16th century	1648
17th century	2250

These figures should only be regarded as indicative. Those for the 13th and 14th centuries are certainly underestimates, as the report on Turners at Belchamp St. Paul below demonstrates. However, they are certainly suggestive when put into the context of concepts such as the Great Rebuilding.

New tree-ring dates have been obtained for Great Codham Hall, Wethersfield, Hungry Hall and New House Farm (or Cresleys) in Cressing, the Monks' Barn, Netteswellbury, and the Lordship Barn, Writtle. Details of these will be found below and in the article on the Cressing buildings in this volume. The two very different barns are revealed as contemporary, whilst Turners, a small aisled hall with archaic framing of a type that would normally be attributed to the 13th century, has been dated to 1328 and can only be a decade or two earlier than Great Codham Hall, a magnificent jettied cross-wing with a crown-post roof.

Belchamp St. Paul, Turners. An early 14th-century aisled hall with archaic framing

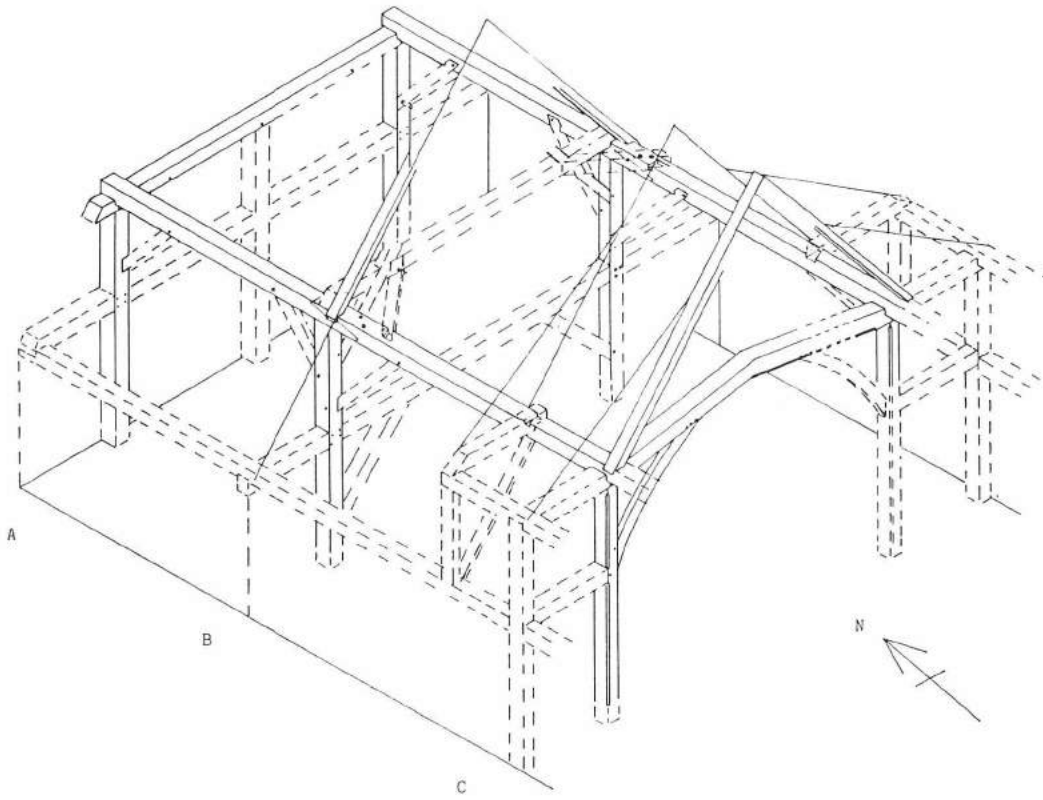
J. Walker, B. Watkin, D. D. Andrews and I. Tyers

'Turners' is the name given to what was an unexceptional looking brick double-fronted cottage with an outshot at the back which stands parallel to Church Street, the north-south road which links the various hamlets into which the parish of Belchamp St. Paul has fragmented (TL 799 431). On the 1840 Tithe Map, it is identified as a cottage and garden located at the edge of Turners Field (ERO D/CT 25). According to the list description, the cottage is 18th century or earlier. In 1996, restoration (and enlargement through the addition of a wing on its south end) revealed clear signs in the form of notched-lap joints and splayed scarf joints that the brick-clad timber frame is of considerable antiquity. It has been shown to date from 1328.

The building began life as an aisled hall with on both sides a hall window rising above the aisles on either side of the central truss (Fig. 1). The aisle fronting the road has been totally removed, and the house reduced to two bays, the original north end and one bay of the hall. Only a very few timbers can be identified as *in situ* components of the original build: four, maybe six, arcade posts, the arcade plates, one, possibly two tie-beams, and perhaps part of a partition wall. As so little survives, the interpretation of the building has provoked much debate and there remain questions to which there are no clear answers.

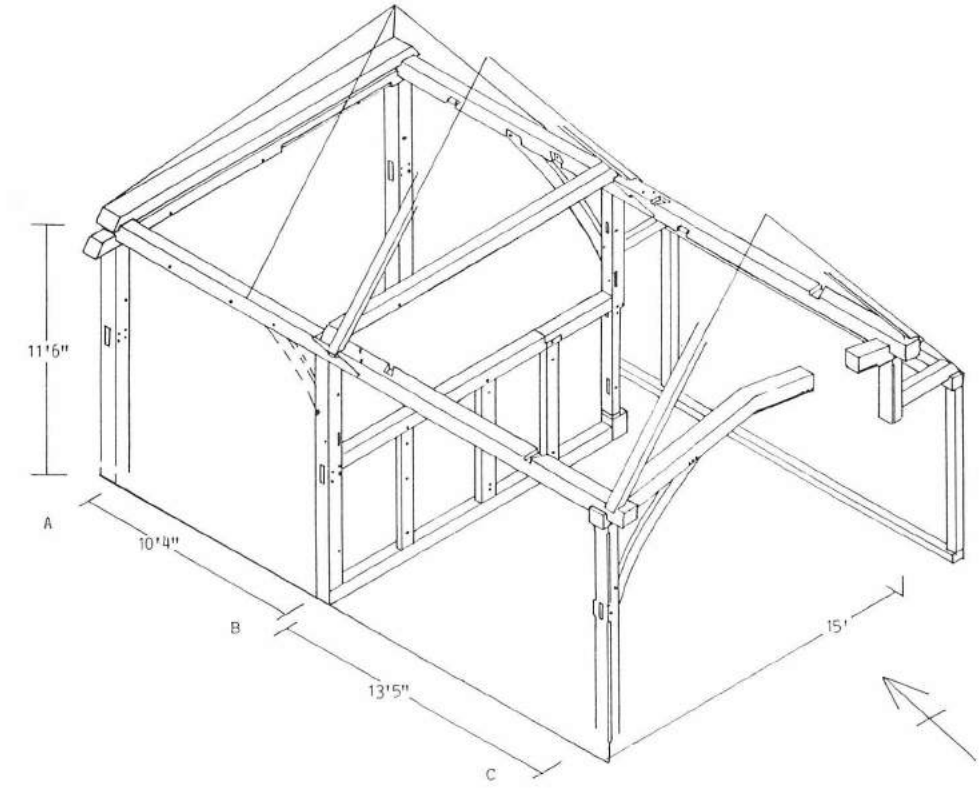
The timbers are 160-200mm, typically 180mm, square. They came from trees that were not straight, and the twist on them as they grew is a conspicuous feature of the grain. Those in the area of the hall are smoke-blackened. None of the timbers are today in excess of 12 feet (3.6m) in length.

The arcade plates are joined with stop-splayed scarfs with under-squinted butts, a transverse key and two face pegs (Fig. 2). Empty housings for unrefined notched-lap joints in the arcade plates indicate the existence of short straight braces between the plates and the posts. In the middle partition, these braces were tenoned into the arcade posts. However, at the north end of the building a large peg instead of a mortice suggests the braces were face-pegged to the posts. In the reconstruction drawing (Fig. 1), it is assumed that these braces were straight, the more common form in early buildings, but sometimes straight and curved



RECONSTRUCTION OF AISLED HALL

Broken lines indicate missing timbers. North bay probably floored unless tie-beam in truss A is remains of the wall-plate of a crosswing



MAIN TIMBERS SURVIVING FROM AISLED HALL

East aisle is later rebuild of original wider aisle. Later inserted floors not shown

TURNER'S, Church Street, Belchamp St Pauls, Essex - Map ref TL 431799

Fig. 1 Belchamp St Paul, Turners. Isometric drawings to show the surviving elements of the timber frame with a reconstruction of the 14th-century aisled hall. (J. Walker)

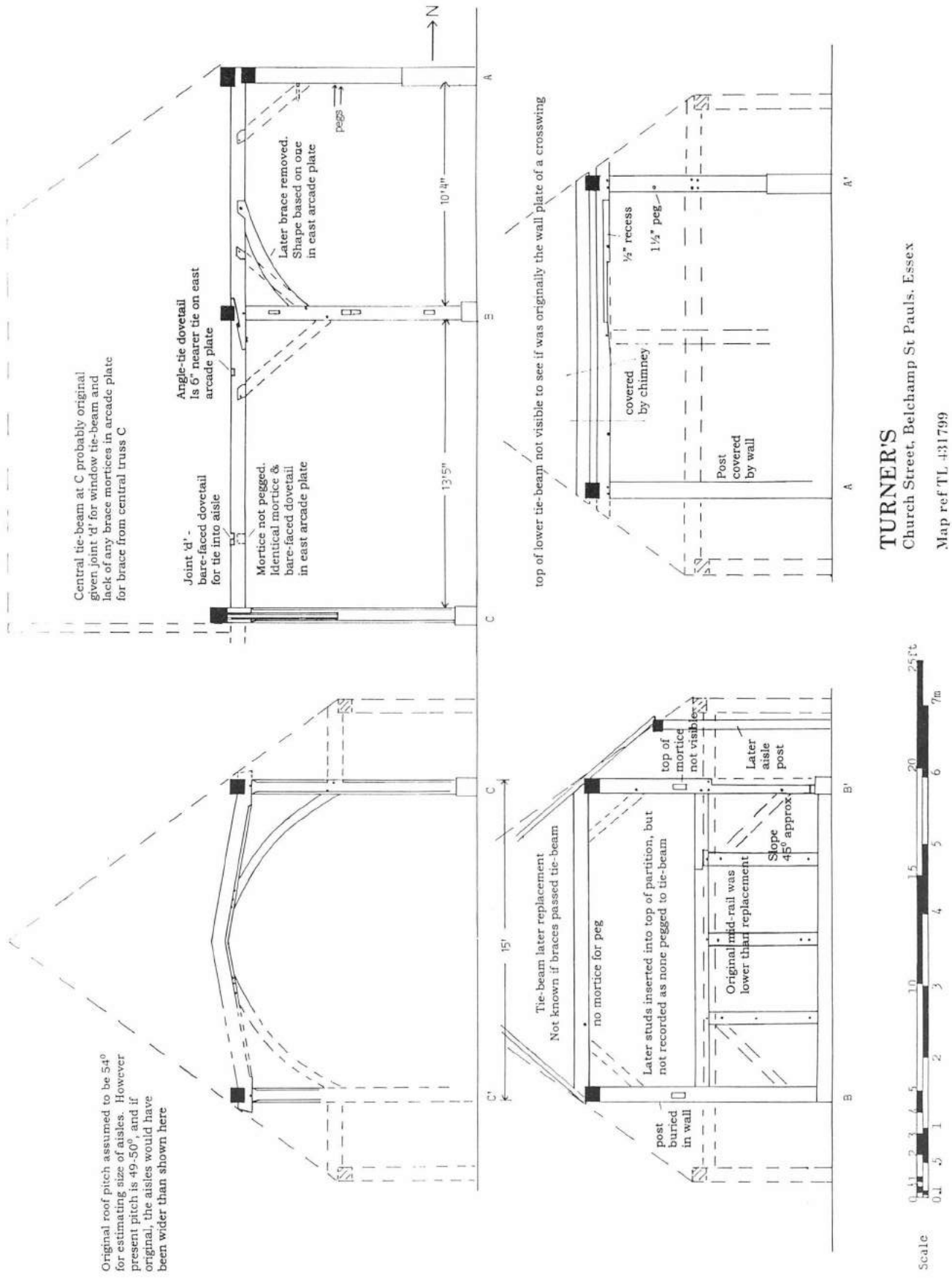


Fig. 2 Belchamp St Paul, Turners. Details of the timber frame. (J. Walker)

braces are combined. For example, Bouchers Hall, an early aisled hall in Tollesbury, has straight braces to its crown post but curved ones rising from the posts to the arcade plates.

In the south bay, barefaced lap-dovetails on the tops of the arcade plates were for dragon ties between them and the middle tie-beam. In Essex, these ties tend to be used only in the open hall. The absence of any housing on the middle tie-beam beam to receive these dragon ties, plus the lack of mortices for the braces from the arcade posts, suggest it is a replacement. This tie-beam, like its predecessor, is also unlike the others in that it rests on the arcade plates (normal assembly) rather than running beneath them (reversed assembly).

The north end tie-beam has another above it trapping the arcade plates. The appearance of this upper beam is unlike the original timbers, and this too is probably a replacement. The southern tie-beam in the hall has a very pronounced camber and arched braces beneath it. It is in reversed assembly and has no braces rising from it to the arcade plate. The beam and the posts have chamfered corners with plain run-out stops. Pegs in the sides of the posts indicate the level of the aisle ties, about 6 feet (1.8m) above existing ground level. Assuming a roof pitch of about 54°, the aisles were quite narrow, about 3 feet 6 inches (1.06m).

Opposite each other in the southern bay, about 3 feet (0.9m) north of the cambered tie-beam, there are dovetail joints on the top of the arcade plates, with mortices (unpegged) beneath them. The dovetails were for outward-running timbers, presumably the top plates of oriel windows. Windows in this position would explain why there were no braces from the arcade posts to the plates. These oriels may have contributed to the rotation which has occurred in the arcade plates, as no doubt also did the reversed assembly.

The mid rail of the partition between the two bays has been raised in height and an edge-halved scarf at its east end indicates that most of it has been replaced. The studs are from curvaceous trees and seem therefore to belong to the original construction, though they may be reused in their present position. They are widely spaced at intervals of 3 feet (1.5m). Dowel holes occurring at the same level probably served for the attachment of a bench. A mortice for a brace exists at the bottom of the east post: this may have risen to the rail or conceivably as high as the tie-beam. There is no evidence of any framing above the rail.

The first major alteration to the house that can be identified involved the reduction in width of the east (and maybe the west) aisle to about 1 foot 8 inches (500mm), and the replacement of the outer wall with one much higher. The studs in this wall are at centres of 450mm, and it probably dates to the 15th century. Similar alterations have been found in other aisled halls.

The existing floors are of two dates, that in the north end bay being the earlier, perhaps of the 16th century. The north-south bridging joist is of elm. Many of the common joists have been replaced, but the original ones are flat section (120mm wide) and somewhat rough and twisty in appearance.

It may be that there was a contemporary floor in the hall, as a plaster-filled housing in the mid rail suggests there was originally a bridging joist to the west of the existing one. The latter is now cased. The common joists are sawn and narrow section (2½ inches or 65mm wide). The chimney stack is offset to the west but would have been central assuming there was still a west aisle. The brickwork includes fragments and is not readily assessed, but the bricks seem precisely made and measure about 230 x 110 x 50mm. In the plaster-lined flue, there are some probable floor tiles only 40mm high. A 17th-century date would be acceptable for the stack. The date 1687 inscribed on the plaster between the rafters of the east pitch of the roof would seem rather late to relate to the stack and the inserted floor and probably refers to a roof renewal. Some of the smoke-blackened rafters survive in the roof. Many of the rafters are small elms with the bark still on. Old bark ties still secured to the rafters indicate that the house was thatched, perhaps at this time and almost certainly by the later 18th century when it was cased with brick and became a double-fronted cottage with segmental headed windows.

Seven timbers were sampled for tree-ring analysis. These include three arcade posts, two arcade plates, and a tie-beam from the apparently original phase, and a single timber from the partition between the two bays. Three of the original timbers were successfully dated and one of these is complete to bark-edge. A felling date of AD1328/9 for the timbers used in the original construction is indicated by these results. All the later insertions and modifications are derived from very fast growing trees with no dendrochronological potential.

Hall houses of *c.* 1300 are uncommon but not rare. The Essex County Council listed buildings database includes 23 13th-century buildings but this is an underestimate, as the case of Turners shows. Two of the most pressing questions about houses of this type is how common they were originally, and at what level of the social scale they were being built. They are also usually only fragmentary survivals as at Turners, with the result that there are also questions about the original structure which cannot be satisfactorily addressed. The hall has lost a bay, but is what remains the high or low end? The evidence for a bench suggests the former. It is also uncertain how the roof was constructed.

There has been considerable argument as to whether the cambered tie-beam in the hall is original. The curved braces that accompany it seem out of character when compared with similar aisled halls. However, it is probably part of the original build given that it appears to be associated with the hall windows and given the 1328 date obtained for the house. Uncertainty also surrounds the north wall, as the dou-

ble tie-beam arrangement is rare in Essex. One suggestion that has been made is that the lower tie-beam was the wall plate of a cross-wing, the upper one being added when the cross-wing was demolished. Unfortunately it was not possible to examine the top of the lower tie-beam.

The insertion of a floor and stack in the 17th century (if not earlier) turned the building into a lobby-entry type house, assuming the west aisle was still in place.

Seen in the context of the development of the village, the house is only 300m from the church, and suggests there was once more of a nucleated village than there is today. Possible evidence of other houses has been found further south on the west side of Church Street (Wallis 1992). In the context of the Great Rebuilding, it is unfortunate that the full significance of the 1687 date on the roof is unclear, and that no timbers of the later phase were suitable for tree-ring dating.

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Castle Hedingham, St. James Street, High House

Brenda Watkin

This is a multi-phase house of typical close studded timber-framed construction rendered externally. The front of the property faces north onto St. James Street with the frontage being defined by three major builds starting with the earliest phase at the eastern end. A later 2½-storey wing extends to the south with other rear extensions, namely a pent-roofed outshot and gabled stair tower (Fig. 3).

The first phase building, for which a date of *c.*1525 can be suggested, consisted of one bay which was jettied originally to the north but is now underbuilt. This is evidenced by the section of the joists left unmoulded, extending out to the front wall, and the severed jetty plate. There is no evidence of any mortises for jetty brackets to the ends of the common joists. Of well converted oak, the ground floor parlour is of exceptional high quality workmanship with the soffit of the main bridging joist being carved in a running foliate design. The common joists are of horizontal section with double ogee moulding finished with a bar and foliate stops. A utility room has been formed by combining the rear outshot with part of the original volume of the parlour. This has resulted in the loss of the entire original rear wall at ground floor level. The hall passage has also been taken out of the original volume and the resulting room is now panelled. The panelling appears to have been made to fit the room as there are sections where the painted frieze containing the Beatitudes has words or parts of words missing. (At present the source of the panelling is not known). With the removal of the jetty plate, in the process of under-building the jetty, any window positions have been lost, likewise in the removal of the rear wall.

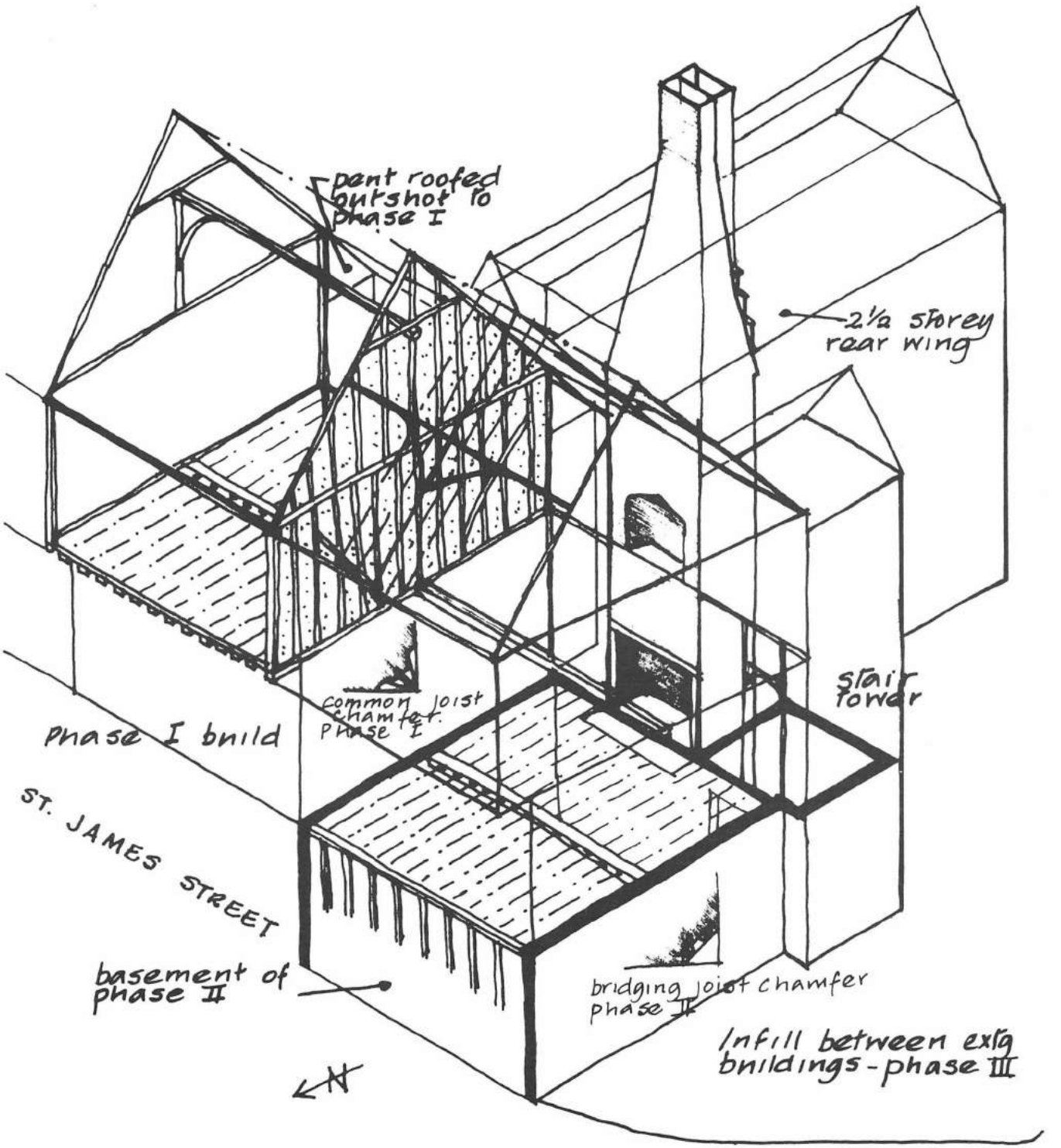
The first-floor rear wall has the evidence of the start of empty diamond-shaped sockets for the mullions of an unglazed window. A shutter groove also exists in the underside of the wall plate and pressure grooves on the studs where the shutter ran along the former shutter rail. Empty mortises survive in the western storey post and the next original stud, suggesting a narrow door with a head set just below the wall plate. Curved tension braces are trenched to the external face of the studs of the western wall that has now become an internal wall. At the eastern end the wall plate appears to carry through into the adjacent property, but there is no evidence that the crown post had more than one brace. The tie-beam is housed onto the wall plate with a bare-faced dovetail joint and the unjowled storey post tenoned into the plate. The chamber was ceiled over at a later date by the insertion of a bridging joist with a half-round moulding and run out stop.

The coupled rafter roof is of crown-post construction with narrow curved braces to the collar purlin and collars to each rafter pair. There is no evidence that the bracing to the crown post carried on to the adjacent property on the eastern side. This could be the result of the existence of a stair or a smoke/stack bay between High House and the adjacent property to the east. A modern stack is now present within this space but there is no sign of smoke blackening. It was not possible to inspect the adjacent property to see how it relates to High House. The western gable wall is fully studded and the collar purlin neatly finished with a half-round on the bottom edge where it overruns the crown post.

The pent-roofed extension to the rear of phase I is also of timber-framed construction with an integral cill running between the widely spaced studs. The floor level is lower than the first floor level making it unlikely that the purpose of the structure was as a gallery access to the phase I chamber. However it is not uncommon for similar structures to be used as viewing platforms to enable a full view of the grounds or garden.

The phase II building is simply mortised into the western end storey posts of phase I. It can be dated to *c.* 1575. It is again of close-studded framing but with a large original stack on the rear wall with hearths at ground and first-floor levels. There is a basement that extends under both this phase and the adjoining stair tower. The main basement is floored over with a deep chamfered bridging joist and horizontal section common joists housed into it with housed soffit tenons and diminished haunches. The common joists are all marked with scribed carpenters' marks 1-13 with tags to the rear of the building.

It would appear that part of the front basement wall was originally in close-studded timber construction, as evidenced by the empty mortises to the under-



CARPENTERS' MARKS ON JOISTS IN CELLAR

I II III IIII V VI VII VIII IV X XI XII XIII

Fig. 3 Castle Hedingham, St James Street, High House.

side of the plate. This was later made obsolete when a new brick wall was built on the line of the under-built front jetty. (No other evidence is available to support the theory that phase II was also jettied to the front as the joists are all concealed).

Most of the timber frame is covered on the ground floor, except for sections either side of the stack which appear to be rebuilt. The exposed bridging joist is moulded with two bowtells and central flat chamfer stopped against a plain run-out stop. The chamfer stop only occurs on the eastern end of the bridging joist suggesting that the wall on the western side has been rebuilt. The brick stack is built of narrow module bricks with timber mantel beam and side jambs chamfered with a broach stop. There are no timber pads under the mantel beam suggesting that the stack has at some time been repaired or rebuilt. The floor plan of this phase is not rectangular suggesting that it followed the existing street or boundary line.

The stack at first-floor level has a Tudor arch to the hearth opening with chamfered edge finishing with a broach stop. The rear wall plate has been mended to the west of the stack and evidence for the original pattern of framing has been lost. The first-floor chamber appears to have been ceiled over at the same time as phase I with the use of an identical moulding to the bridging joist i.e. half round with run-out stop. This suggests that the building was in the same ownership then and phase II was an extension to the earlier build. No evidence exists for the style of the original windows but the 17th-century iron casement to the front elevation with its contemporary window furniture and leaded glass quarries is of exceptional quality.

The roof is of paired rafter construction with the rafters halved and pegged at the apices and the side purlins clasped by collars to the principal rafters. Curving wind braces rise from each side of the central principal rafters to the side purlins. Bleaching of the sides of the oak rafters is evidence of original lime plaster infill, made redundant when the room was later ceiled over. The western end is of scrambled framing that suggests a complete rebuild. The original brick stack now has its external face trapped against a later stack and covered by the roof of the later rear extension. However it is possible to see the profile of steps rising up the stack with moulded brick cappings leading possibly to an embattled or crow-step top.

The rear gabled stair tower has a narrow door with Tudor arch head that would have provided access from the ground floor. No evidence was seen for a door at first-floor level in the rear wall. The style of the stair tower framing would accord with a similar date to that of phase II.

In phase III, an infill structure was inserted between phase II and an adjacent building, providing a room at first-floor level only (with a lower floor level than the other phases) over an open area below. This was also built in timber-framed construction incorporating reused timbers and is extremely difficult to date.

The 2½-storey rear wing is now accessed from a Georgian-style staircase built in the area adjacent to the original rear stack of phase II and the pent-roofed outshot to the rear of phase I. The wing is typical of late 17th-century work, being characterised by primary braced timber-framed construction i.e. the diagonal structural braces are mortised and pegged into the main storey posts and mid rail with the studs nailed onto the braces and mortised, but not always pegged, into the horizontal plates or rails. The stack contemporary with this build has an open 'cooking' hearth with timber mantel beam at ground floor and small Victorian fireplace to the attic floor.

Netteswellbury, Harlow, The Monks Barn

D.D.Andrews, Adrian Gibson and I.Tyers

The former manor of Netteswellbury is situated at the heart of Harlow New Town. Of the manorial buildings there survive the church, the farmhouse, the Monks Barn and some other farm buildings. Both church and barn have long been redundant, and in 1988-89 Harlow Borough Council restored and adapted them as a Study Centre to record and celebrate the creation of the New Town. This was not before the barn had suffered a serious fire in 1986 which left the timbers badly charred but otherwise surprisingly undamaged. Attention was first drawn to the importance of the Monks Barn by Cecil Hewett who published a brief description of it, together with details of the edge-halved scarf joints and a squint-butted scarf, and a painting of the interior (Hewett 1969, 107, 116-18, 180-81, 185).

The barn is of six bays with aisles (Fig. 4). Assembly is normal. The arcade posts are made of inverted trees 1 foot (300mm) square in section, and have jowls. Soffit jowls occur on the aisle ties and on the mid rails in the end trusses. The timber quality is excellent, being straight-grained but, by Essex standards, exceptionally slow grown (see below). The side walls and arcade posts rest on cill beams and sole plates, some of which survive, and which are at their original level, today supported by brickwork which has been entirely renewed since the restoration. A sole plate on the south side preserves the carpenter's mark 'III'. (Most of the timbers are too charred for marks to survive).

A spectacular feature of the barn is the use of arched or curving passing braces that rise from the cill beams, cross the posts at the junction with the aisle-ties and terminate at the tie-beams (Fig. 5). There are no normal transverse tie-beam braces rising from the posts: the function of passing brace and major brace are uniquely combined here in a single member. This solution, to provide transverse strength within the trusses, can be compared to the contemporary late medieval use of tie-beam braces and separate 'shores' set to the rear of the arcade posts. At Netteswellbury these elements are combined in a single member and recall the passing-braced framing common to 13th and

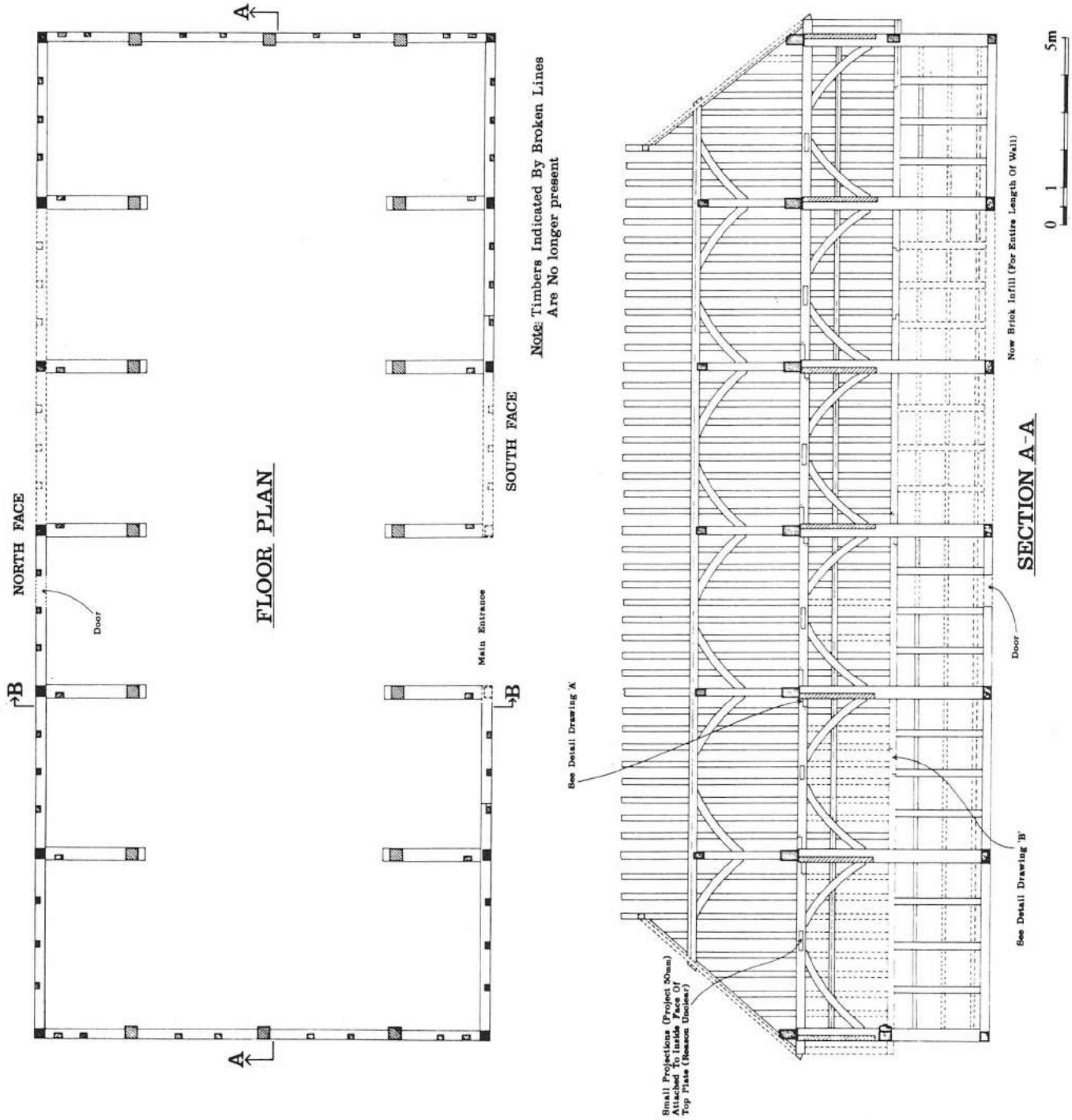


Fig. 4 Netteswellbury, the Monks Barn. Plan and longitudinal section (P.J. Skeet)

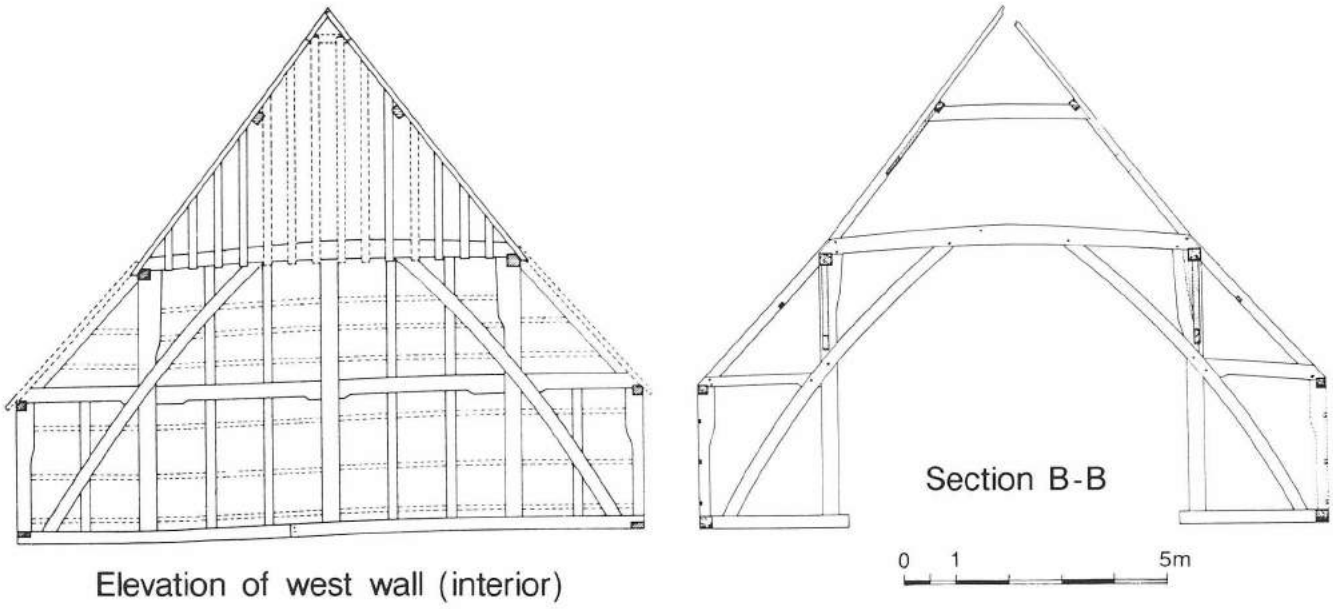


Fig. 5 Netteswellbury, the Monks Barn. Transverse sections. (P.J. Skeet)

early 14th-century aisled buildings employing archaic framing. However, here an inventive mind has united the best of the old and the new with a brilliant solution, though one dependent on the availability of good quality long curved timbers.

Also unusual are the side walls which were boarded: each bay has three studs at intervals of about 3 feet (0.9m), halved across the back of which are three rails which have five or six dowel holes for the attachment of presumably three or four boards. The roof is of clasped purlin construction with wind braces to the purlins. The principal rafters are reduced in thickness at the purlins. Over the aisles there are purlins which butt the principals, the common rafters running over the back of them.

The distinctive carpentry joints present in the barn are the edge-halved scarf joints in the aisle top plate and the arcade plate, which have either sallied or bird's-mouthed abutments (Fig. 6). However a length of aisle top plate on the north side has a scarf at one end without these abutments. A surviving portion of cill beam to the west of the entrance has a squint-butted and bridled scarf with two pegs. The squint-butted scarf with a secret bridle illustrated by Hewett (1969, 185) seems not to have survived the restoration.

The barn is remarkably unaltered. The only replacement timber identified as pre-dating the 1988-89 restoration is a portion of aisle top plate on the north side in the penultimate bay at the east end where conceivably a door may have been inserted. A scarf joint right at the eastern end of this top plate does not indicate that the barn continued further but instead must have arisen from a cutting-out error or a problem with the supply of adequate timber (see article below on the geometry of the barn for how this error may have arisen). Intermediate studs have been inserted between the originals, presumably to take weather-boarding. The position of the original entrance is uncertain: there is no clear evidence of doors on either the north or south sides, but the fact that the passing braces in the third bay from the east face each other instead of being set on the west side of the trusses

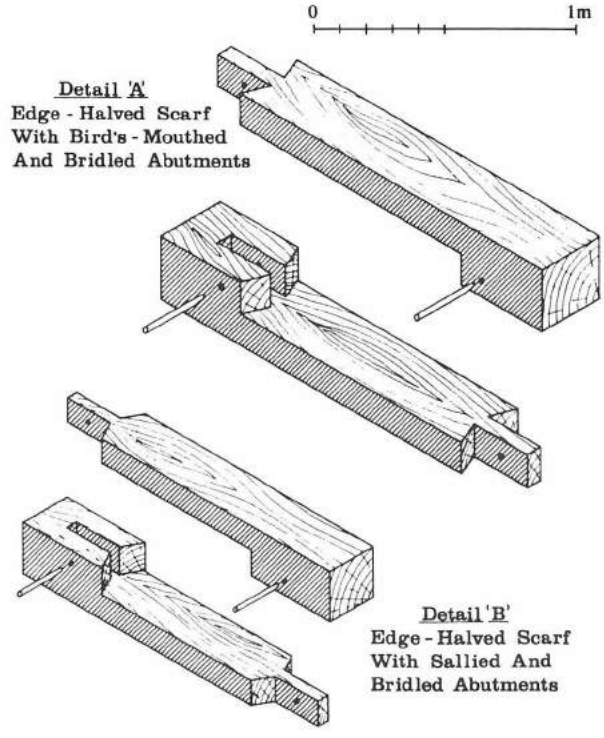


Fig. 6 Netteswellbury, the Monks Barn. Edge-halved scarf joints (P.J. Skeet)

implies that it was located there (i.e. to the right of the existing doors).

The restoration was faithful to the features of the building as found. The reinstatement of the boarded walls was problematic as evidence for the details of the original construction was wanting. Wooden fillets have been used to seal the joints between the boards, so that the external appearance now resembles Greensted church or the tower of Marks Tey church. The boards also cover the exterior of the studs, whereas examination of photographs suggests that they originally butted up against them.

The barn was built for the monks of Waltham Abbey who were the lords of the manor. It is generally assigned to the 15th century, but there is uncertainty as to which part of that century and some would suggest a date in the 16th century. Several differing dates, ranging from the early to mid 14th century to the 15th century, have been asserted for it in a recent publication (Andrews 1993, 68, 90). There has been considerable disquiet about the date of the roof as the purlin construction, with slender wind-braces and reduced principals has suggested to many people that it may be a 16th-century replacement. Careful examination of the timbers, however, indicates that the roof is of one build with the rest of the barn. What was found were pegs in at least three tie-beams just to the north of centre. There were no mortices corresponding to them and their function is uncertain.

A total of 14 cores were taken for tree-ring dating. These included samples from seven arcade posts, three aisle posts, two sills, and two principal rafters. The timbers proved to be most unusual for an Essex building: all the cores had sufficient rings to measure; all but two had more than a hundred annual rings (that is *c.* 86%); and all but three had average growth rates of less than 1.5mm/year (*c.* 78%). The contrast between this and most of the material hitherto examined in Essex cannot be over-stressed. For example, of the 146 samples analysed from eight buildings at Cressing Temple, only thirteen timbers have more than 100 rings (*c.* 9%), and only 28 have average growth rates below 1.5mm/year (*c.* 19%). The only drawback with the material from Netteswellbury was that the recent fire appears to have removed or made very fragile almost all of the outer sapwood. This inability to successfully obtain the outermost rings has prevented a very precise date from being obtained for the structure. Nevertheless, two samples included some sapwood and these had latest rings of AD1438 and AD1439 respectively. Seven others ended at the heartwood/sapwood boundaries and the last rings from these were clustered between AD1414 to AD1428. Combining these results provides a construction date for the barn of between AD1439 and c. AD1470.

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The geometry of the construction of Netteswellbury Barn, Harlow

Adrian Gibson

The geometry of the plan, in common with the two barns at Cressing Temple and others now studied (Gibson 1996), is based on intersecting circles whose radii are defined by the old unit of length, the rod (16_ feet or 5 m).[1] The plan is contained within two circles, each of 3 rods diameter that are overlapped, having their circumferences intersecting at the points where inscribed hexagons touch the circles (Fig. 7). The hexagons of both circles consequently have a common edge and this edge defines the vertical centre-line of the six bayed barn.

Each hexagon contains a horizontal rectangle of side-end proportion of $1:\sqrt{3}$. This rectangle commonly occurs in barn and church plans where it defines the width of the nave. A 'star of David', that is two opposed equilateral triangles drawn within each circle, will divide each rectangle into three units which themselves have an end-side proportion of $1:\sqrt{3}$ but orientated at right angles to the large rectangles. The smaller units define the bay intervals of the nave of the barn.

To set out the aisle widths a second series of circles is required whose radii span from the centre of one nave bay line to the near corners of the adjacent bays. The outer sweeps of these circles marks the position of the outer walls.

The bay intervals so constructed tally with those of the barn and the aisle circles touch the interior face of the aisle walls. One bay, though, that at the west end, is 1' 8" or 0.5m wider than the rest and at first glance looks to be a specially puzzling extension of that bay. If though, the geometrically constructed bay intervals were used as datum lines lying against the western side of the trusses and not through their centres, then the east end wall would lie outside the east side geometrical bay line (similar to the long side walls lying outside the defining circles). If uniformity is retained in this respect, that the walls lie outside the constructed diagram, then the west wall should also be set outside the end bay interval. This appears to be exactly the system used as, at each end, the inner faces of the 'arcade posts' in the terminal walls touch the end construction lines. At the eastern end of the north aisle a short length of wall plate has been scarfed onto the general run. It looks like a correction for a miscalculation and may well be related to the extra length of bay at the other, west, end of the barn, perhaps not originally realised but corrected as the barn was built.

The cross-section of the barn is similar to those at Cressing Temple and other barns in that it is derived

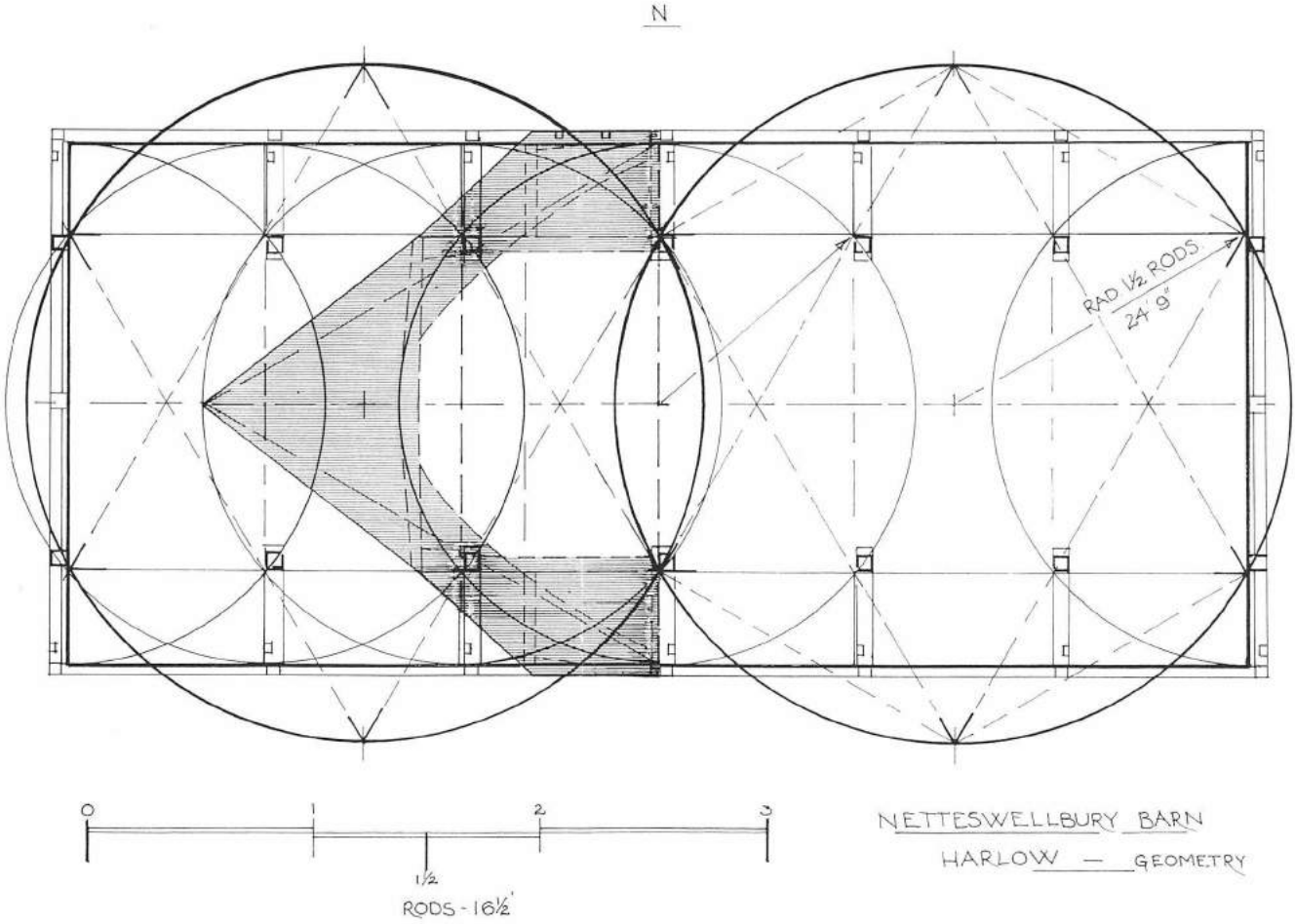


Fig. 7 Netteswellbury, the Monks Barn. Diagram to illustrate the constructive geometry.

from the plan and is similarly based on an equilateral triangle. This triangle spans two bays of the plan plus the extra sweep of the aisle generative circle. Similar circle arcs in the plan define the upper face of the aisle ties and the apex of the central cambered tie-beam.

Notes

1. This analysis is based on survey drawings made in 1986 by Paul Skeet of the Essex County Council Planning Department.

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Helions Bumpstead, Boblow House

Brenda Watkin

Continuing research into the plan form of the timber-framed buildings of the county has identified many that do not conform to the standard house type. Sometimes it is easy to suggest a probable use from the position of a building, as with a guildhall close to the church, but often there is no easy answer.

Boblow House is one such building. It is an imposing timber-framed structure set on the high clay plateau to the south-west of Helions Bumpstead. Doorways on the east side suggest the existence of an earlier building there, but today the old part of the structure comprises a wing with two heated chambers at both ground and first-floor level, divided by a central partition (Fig. 8). The roof with its clasped purlins and windbraces, the frieze windows, and the occurrence of primary bracing in the internal partition walls, are carpentry features which point to a 17th-century date. Whilst the framing is of large section and well converted, there is little decoration apart from the fireplaces which have carved pedimented surrounds with moulded capitals and bases to the columns. Remnants of plaster to the first-floor main chamber fireplace show that this was quoined with an incised ashlar design to resemble stone. A later stair now gives access to the first floor.

The position of the original stairs is uncertain, but it is suggested that a stair tower, positioned against the northern stack, originally gave access at the first-floor level to the principal heated chamber. Against the southern stack, there is the rare survival of a garderobe shaft.

Boblow was one of the more important Essex

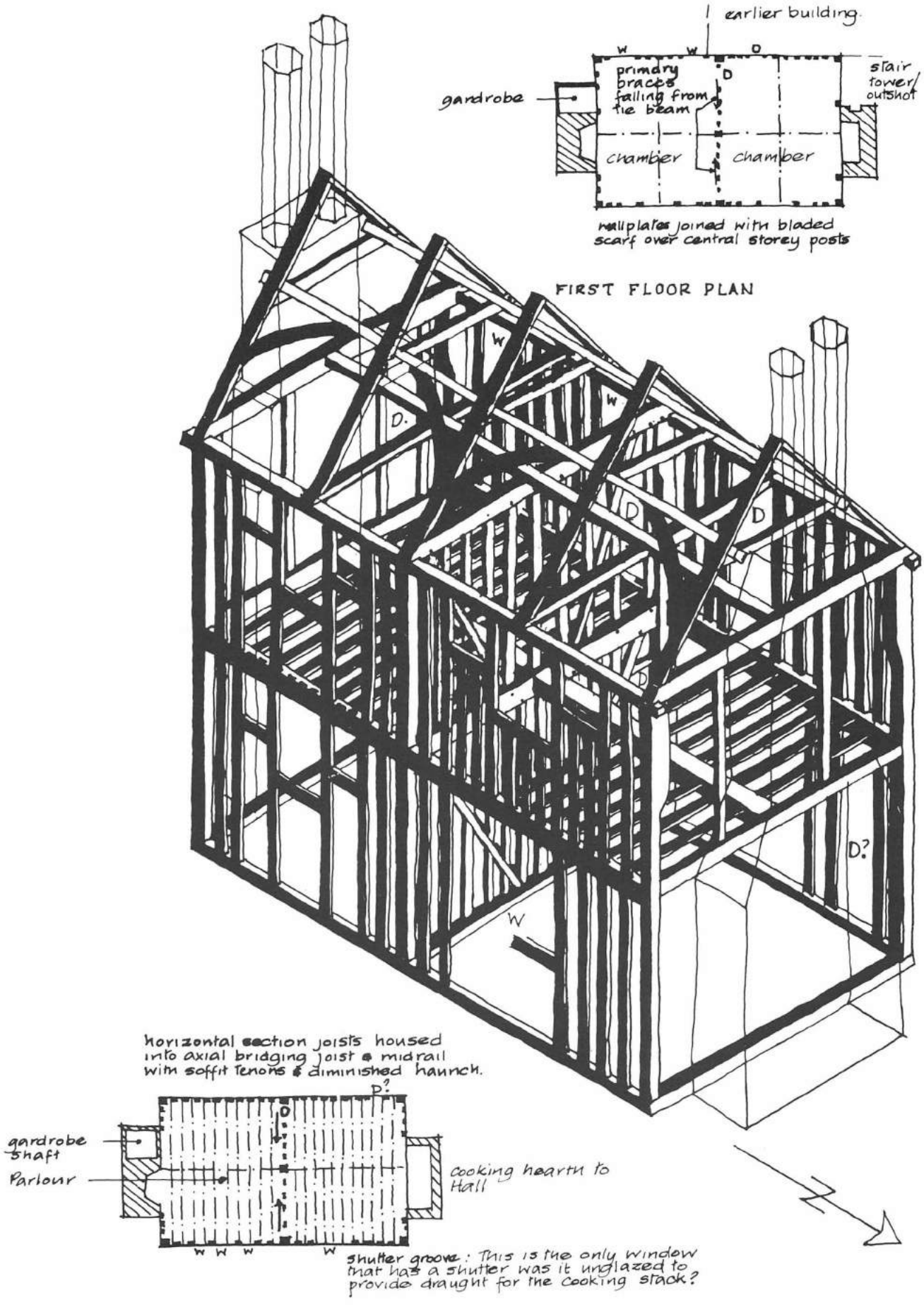


Fig. 8 Helions Bumpstead, Boblow House.

manors belonging to the Hospitallers and is estimated to have been the centre of a 150-acre estate (Gervers 1994, 7). It remained in the Hospitallers' ownership until the Dissolution, when it passed in quick succession through various families until William Stubbing acquired it in 1564. It remained with the Stubbing family until 1701, and they must have been responsible for the construction of the building considered here.

The list description suggests Boblow House was built as a hunting lodge. A re-examination of the building favours the view that it represents a new parlour wing added to an earlier building. As such, it was a "modern" cross-wing with up-to-date features like brick chimney stacks and glazed windows.

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Terling, Tudor House

Brenda Watkin and D.D.Andrews

Tudor House is an H-plan timber-framed house (Fig. 9) which stands on the village 'green' adjacent to the church. The cross-wings with their jetties and gables face south towards the church across what must once have been a lane. The 1597 Walker map of Terling (Edwards and Newton 1984, plate IX) is very faded but nevertheless confirms that this was the case. Indeed the house formed part of a row of buildings which have now vanished. The row looks very much like infill in the medieval marketplace which it can be presumed was located close to the church. The modern road to the north of the house flanking the green is a back lane on the Walker map.

The house is built of good quality but unadorned timber of heavy scantling. The studs measure 6-8 inches and are set at 20-inch centres. The main doors at front and back are still those of the cross passage at the low end of the hall. The latter was of two unequal bays. A floor has been inserted with a stack at the low end, but the cambered tie-beam with the stub of a massive tightly arched brace and a cross-quadrate crown post are still visible. The position of the window on the north side can be recognised by a rebate cut into the top plate. There was a corresponding window on the south side where today there is an exceptionally large dormer, but no original features can be detected here.

The cross-wings appear to be identical and contemporary with the hall. The floor joists are very wide (7 x 5 inches) and have central tenons. The walls have tension bracing. The tie-beams are cambered and had similar bracing to the hall. The roofs were hipped at the rear, with the central rafter pegged to the upper of the pair of collars that formed the gablet. The crown posts are plain, with bracing only to the collar purlin, the braces being 1½ inches thick. At the rear of the western cross-wing, there was a first-floor window and a tension brace in an eccentric position. This is explained by the existence of a stair tower: there are no obvious mortices for the attachment of this, but its small pitched roof aligned north-south survives. Mortices visible externally and a blocked door at the south-west corner of the cross-wing probably mark the position of a garderobe.

Features diagnostic for dating are the studwork, the central tenons, the cross-quadrate crown post and the crown-post braces. Together they tend to indicate a date in the first half of the 15th century. A significant aspect of the building's construction is the absence of jowls, something that sometimes occurs on buildings of this period in the Colchester and Maldon area.

The building was improved with the insertion of three brick stacks, one at each end and one in the hall. That at the high end (i.e. west end) is very fine, being embattled externally below the point at which it narrows to rise above the roof. There is also a string course with a quarter-round moulding just below the flues. Inside at the ground floor, it has a four-centred arch with a hollow chamfer and a quarter-round moulding. The hearth itself has a canted back. The bricks are large (230-240 x 120 x 60mm), of the sort made in the 16th century. The stack at the other end has at the first floor an arched surround with a round-arched recess above it. The brickwork is ruddled and in an excellent state of preservation. The stack in the hall is less grand, with a plain mantlebeam. Its brickwork is rather different, the bricks being rather smaller (225 x 110 x 55mm) and more precisely made, suggestive of a 17th-century date.

Other features can also be assigned to the 17th century. The oriel window on the south side of the west cross-wing has ovolo mullions and a very handsome moulded brick plinth. At the rear of the house, the small stair tower was incorporated into a much larger one which seems to have had a frieze window below its top plate on two sides.

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Wakes Colne, Normans Farm

D.F. Stenning

Normans Farm (now known as Normandy Hall) is an aisled hall with a cross-wing, likely to date from the early 14th century interpreted in the light of current understanding of stylistic criteria. Only recognised as an aisled hall in the 1980s (when it was spotted by Mrs Ida McMaster), it has been studied and measured by the late Douglas Scott and Richard Shackle as well as the author. Despite being an impressive building, its original status remains uncertain, though it seems to

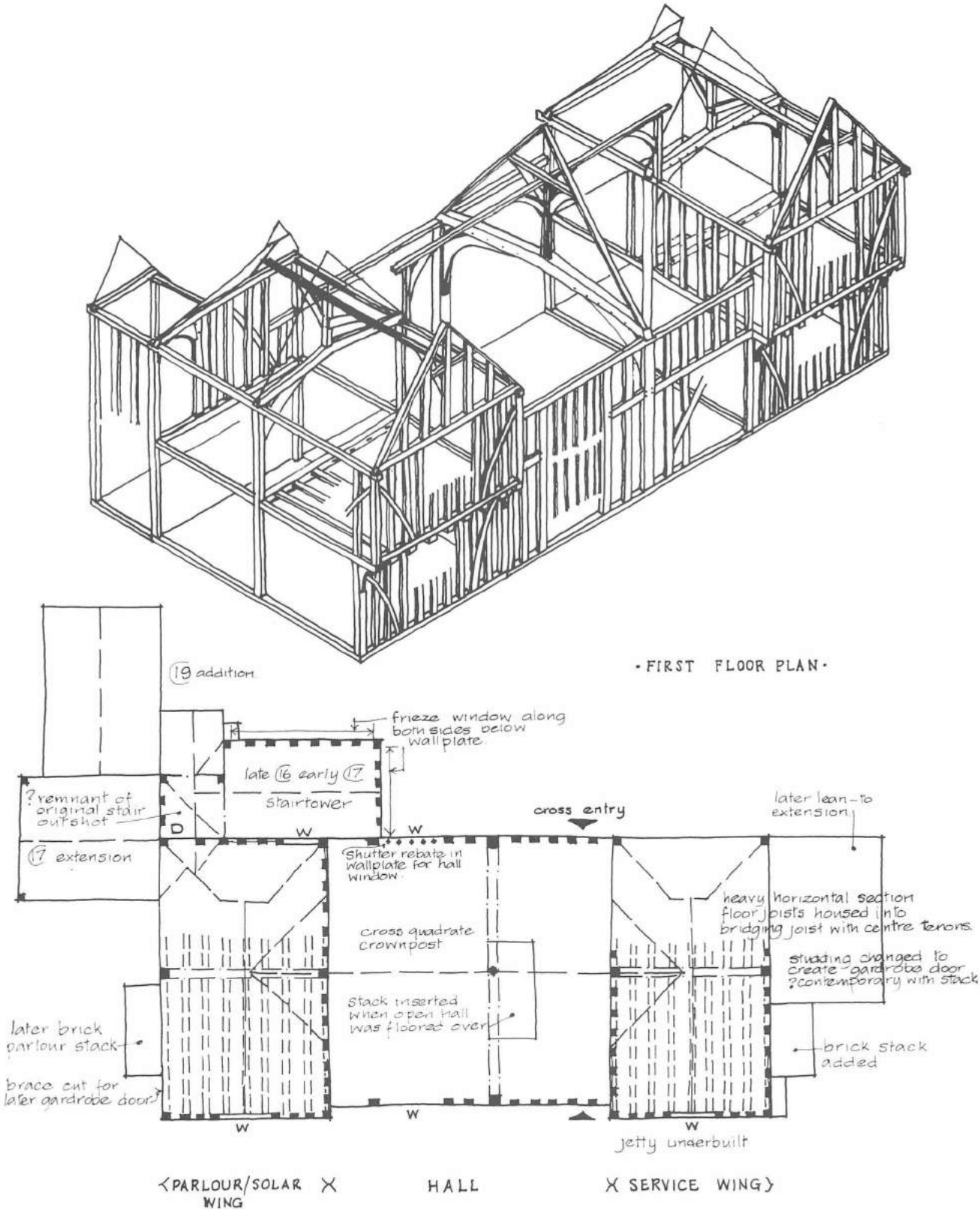


Fig. 9 Terling, Tudor House (B. Watkin).

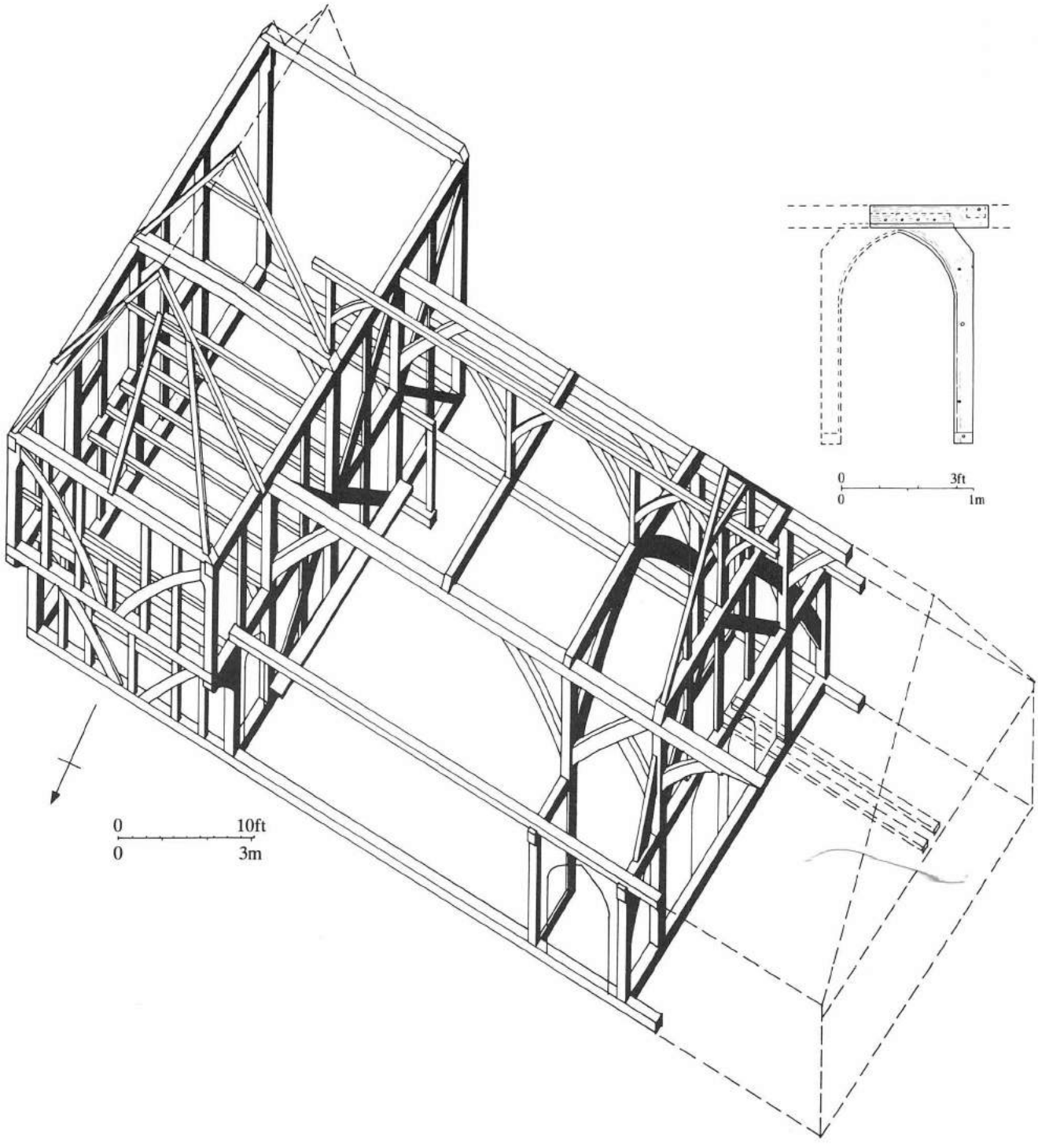


Fig. 10 Wakes Colne, Normans. Frame drawing with detail of reused durn door.

have been a copyhold tenement of Wakes Colne manor (Janet Cooper, pers. comm.). To the immediate south of Normans is a small, probably once detached, kitchen, now rebuilt as a guest annex.

The building was originally an aisled hall of two bays with a spere truss defining a cross-passage. The north aisle has been removed and that to the south substantially rebuilt (Fig. 10). The service end was in-line; though now largely missing, it was probably identical in size with the existing rebuild. The contemporary high end is of cross-wing form and the front is boldly jettied and unusually is hipped with a gablet over. The rear of the wing has been rebuilt: it too may have been jettied and hipped as at Gainsthorpe, Bobbingworth.

The hall and service block have a crown-post roof with steep, thick and slightly curved longitudinal braces. A tie-beam spanning the hall carries a crown post but is, and always was, supported only by the arcade plates, there being no arcade posts. It is conceivable that the arcade plates were at this point rein-

forced by base crucks, but their soffits are concealed and this idea seems unlikely. The arcade braces have a similar profile to that of the crown-post braces. The braces over the cross-passage intersect, as at Clavering Bury and some other contemporary houses. The spere truss has impressive tie-beam braces, but the base of the posts has been cut away removing all evidence of the speres.

The wall between cross-passage and service rooms has been removed below plate level. However it is possible to determine that this was a closed partition with studwork with slightly curved passing braces, tenoned into and terminating at the tie-beam. These were echoed by a pair of straight braces between mid-rail and tie-beam. The effect of the passing braces may well have been reflected in the spere truss where, on one side only, there is a mortice for a short down brace. At the western truncated end of the northern arcade plate, there are the remains of a splayed and under-squinted scarf joint.

There are several durn-type door jambs, now reused in the existing south aisle. These were refixed in recent times and probably represent the service and cross-passage doors. They preserve a number of interesting features. There is possibly evidence for a hall window in the south aisle.

The cross-wing (cf. Stenning 1993) was examined and measured by Douglas Scott whilst renovation works were under way in 1988. The partition to the hall has an X-shaped bracing pattern, as at the Woolpack, Coggeshall, and there is evidence for a parlour door, bench and draught spere. The floor framing is unusual in that the arch-braced bridging joists are only a little larger than the common joists. The roof appears to be of collar-rafter type, and Scott noted pegs in the gablet for a smoke outlet.

The front elevation has jowled posts, evidence for tension braces and a central first-floor window with a full width shutter rail. On the ground floor there were a pair of windows, one each side of a central post with a jetty bracket. Evidence survives for one first-floor window on the east flank. It would be interesting to know whether this flank wall has any form of bracing as the relatively wide stud spacing makes this a probability.

The rear of the cross-wing remains problematic in that in the west side there is no mortice for a girt to the south of the storey post. Instead there is a pair of mortices for an arch and tension brace. Probably the stairs were in this position, in the rear of the cross-wing, and recent changes have obscured the original layout.

Normans is probably an early example of an aisled hall with a contemporary cross-wing, and as such can be regarded as a fashionable medium-sized house of its period. Like Edgars Farmhouse, Stowmarket (now in the Museum of East Anglian Rural Life at Stowmarket), it has both crown posts and passing braces, and is transitional between the two structural concepts. The use of a hipped and gabled roof over the jettied 'front' elevation is unusual in Essex and is reminiscent of Kent or the occasional building in that part of south-west Essex influenced by London. If the tie-beam was indeed unsupported by arcade posts, then that was a so-far unique solution to the problem of creating more unimpeded space within the hall.

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Wethersfield, Great Codham Hall. The 14th-century cross-wing

Brenda Watkin

The northern facade, today the front, of Great Codham Hall has been formalised with vertical sliding sash windows and a central bay with a steeply pitched hip roof flanked by hipped wings. The central portion, now the hall with the Georgian staircase to the rear, is the oldest surviving section of the present building. It is constructed of heavy section oak which is variable in quality and conversion. Built as a three-bay plan form it has an open braced division at each bay on the ground and first floor (Fig. 11). The front was originally jettied, as evidenced by the trenches for the jetty plate, the dovetail joints in the mid rail, and the empty mortices to the underside of the central floor joist and the mid rails which would have held the brackets to support the jetty. The jetty has now been underbuilt making all of these features visible, and also the peg holes through the floor joists where they were individually pegged to the jetty plate (a sign of high quality work). The floor joists are of flat section and jointed into the transverse bridging joist with central tenon joints.

Little remains of the timber-framed walls except for the main storey posts and small sections of original stud infill at very wide spacings. Of particular interest is a full height storey post into which is framed the mid rail from the jetty on the south-western side. This does not coincide with the main bay storey post which is the next post to the south. A brace slot mid way up the first-storey post falls towards the front of the building and a trench can be seen in the adjacent stud. Could the oddly positioned storey post be in line with the arcade of a now dismantled aisled hall thus supporting the arcade plate and the last arcade brace?

Another small section of original framing appears at first-floor level at the south-east corner where, due to changes of floor level, studs above and partly below the mid rail can be seen. The timbers are weathered and comprise a brace trenched externally and rising from the storey post which measures 15"x12" across the studs (of which only two originals survive) to the rear north-east corner storey post. The wall plate into which these elements are jointed has been replaced, most probably when the adjacent five-bay range was built. This plate ends with a face-halved and bladed scarf. An arch head for a doorway is cut into the under-

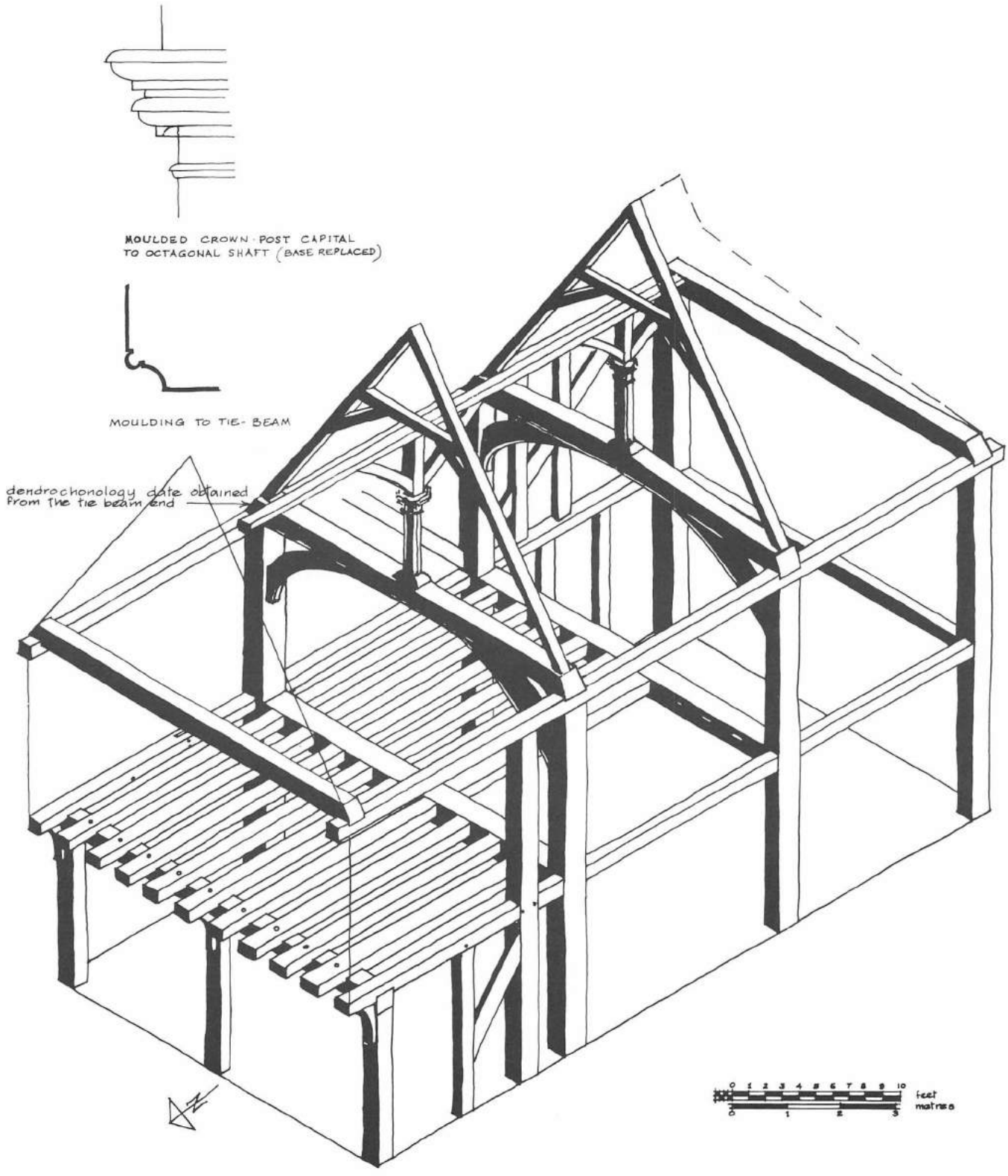


Fig. 11 Frame drawing of the surviving elements of the cross-wing which forms the central core and oldest part of Great Codham Hall, Wethersfield. The northern crown post has been removed.

Essex Archaeology and History **28** (1997), 249-266

Church miscellany 1996

D.D. Andrews (ed.)

Introduction

D.D.Andrews

The following notes and reports are based on discoveries and observations made in the course of works carried out to churches and chapels. The assistance and collaboration of the contractors, parishes, incumbents and architects is gratefully acknowledged. A notable event in 1996 was the publication by the Friends of Essex Churches of *A select guide to Essex churches and chapels*, edited by John Fitch (reviewed in this volume). This is an attractive and lively handbook which supersedes Pevsner's *Essex* as the best and most up-to-date guide to the county's churches.

Only one new tree-ring date has recently been obtained for an Essex church, namely St. Martin's, Colchester, which after a long period of dereliction has been made structurally sound thanks to English Heritage grant and is now vested in the Churches Conservation Trust. A tie-beam from the nave roof, a plain rafter-couple construction, gave a date of 1350, consistent with the 14th-century date attributed to the nave arcades.

Elmstead, St. Anne and St. Lawrence

D.D.Andrews

In April 1995, the timber floor of the south aisle was lifted because of dry rot, and the plaster removed from the bottom 3 feet (910mm) of the south and west walls of the aisle, and also from the east wall inside the porch (i.e. the other side of the west wall of the aisle).

In the floor of the west half of the chapel, the outline of a brick vault measuring approximately 5 feet (1.52m) by 7 feet 6 inches (2.28m) was clearly revealed. The brickwork looked 18th-19th century. The top of the vault was covered with a flat hollow-sounding screed. Wall monuments suggest this vault belonged to the Lay or Hurlock families. To the north of this vault was a brick wall in the ground indicating the presence of another one. In contrast, there seemed to be no vaults in the east half of the chapel. The top of the loose earthy deposit in this area was not of obvious archaeological significance, there being no clear traces of any floor levels.

The south aisle is thought to have been built up against the slightly earlier tower, the ground floor of which forms the entrance porch, and this seemed to be confirmed by the exposed masonry (Fig. 1). The west wall (i.e. the tower wall) has an offset foundation which seemed to continue in the fabric of the south wall which did not have an offset, though a concrete footing at the base of this wall may have replaced one. The west wall was made of coursed ironstone conglomerate with a few bricks which seemed Roman, though in the porch three 12th to 13th-century Coggeshall-type bricks measuring 13 x 6½ x 2 inches (330 x 165 x 50mm) were noted. The masonry of the south wall was somewhat obscured by the remains of the plaster, but the wall looked to be built of somewhat smaller pieces of stone than the west one.

No medieval plaster survived in the aisle. A late 20th-century render was present on the walls, overlying the remains of a thick whitish plaster, beneath which is the slightly sandy buff bonding material which is common to both west and south walls.

A long-standing problem with this church is the question of whether the two arches in the south wall of the aisle, and the arches in the west and east walls of the tower, were blind or open. The newly exposed masonry indicated that they were blind. In the case of the south aisle, it was possible to see that the column of the arcade is trefoil-shaped, not a quatrefoil as it would have been had the arch been open. The south side of the column is rectangular in shape where it projects into the masonry of the wall. In the porch, the masonry within the arch seems continuous with the sides of

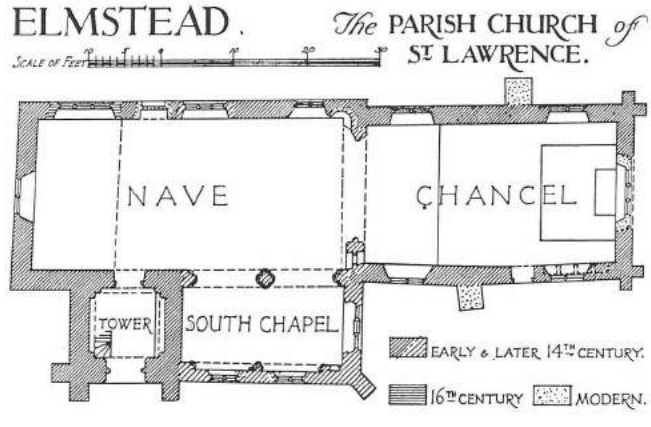


Fig. 1 Elmstead, St. Anne and St. Hugh, phase plan *(RCHM Essex* 1922*)*



Plate 1 Lambourne, St. Mary, interior.

the arch. In addition, there is no outline of a blocked arch on the other side of the wall inside the aisle.

Lambourne, St. Mary and All Saints. An analysis of the fabric

D.D. Andrews

St. Mary's church stands in an isolated position high up on the southern terrace of the Roding valley a little to the east of Abridge. London is not far away, and has made its influence felt in a systematic attempt in the 18th century to give the church an urbane and polite appearance.

The south elevation was stripped of render in 1993, and the east, north and west sides in 1996, a hard grey cement being replaced with lime plaster. The underlying masonry was examined and rectified photographs were taken, on the basis of which analytical drawings have been prepared.

This account of the exposed fabric will attempt to present it in chronological order:

I. 12th century

Two small round-headed windows high up in the north and south nave wall, together with the now blocked north and south doors, show the nave to be Norman (Fig. 2). The walls are built of large (80-150mm) sub-angular flints laid to courses, and bonded with a weak pale brown slightly sandy mortar. The stones are fairly tightly packed and lifts were not very evident, but were most clear at the top of the north wall, especially adjacent to the round-headed window where they seemed to correspond to the height of the jambs (i.e. about 8 inches or 200mm). Two putlog holes were noted to the west of the north door about 5 feet 5 inches (1.65m) above ground level. The more westerly one had the remains of a squared timber in it. The flintwork was disturbed round the jambs but not obviously round the arches of the north and south doors. The stonework of the doors is of both Reigate and a cream-coloured limestone (?Caen) which often still bears tooling marks. The same stone occurs in the surrounds of the small round-headed windows.

At the east end of the nave, the sides of the church step inwards. On the north side the plaster, which here has stuccoed rustication, was not removed. On the south side the masonry of the stepped portion of the wall was much patched in brick but seemed continuous with the chancel. This would support the proposal made by the Royal Commission on Historical Monuments (RCHM, II, 1921, 143) that this feature represents the remains of an earlier chancel. However it is also possible that it may indicate that originally there was an apse.

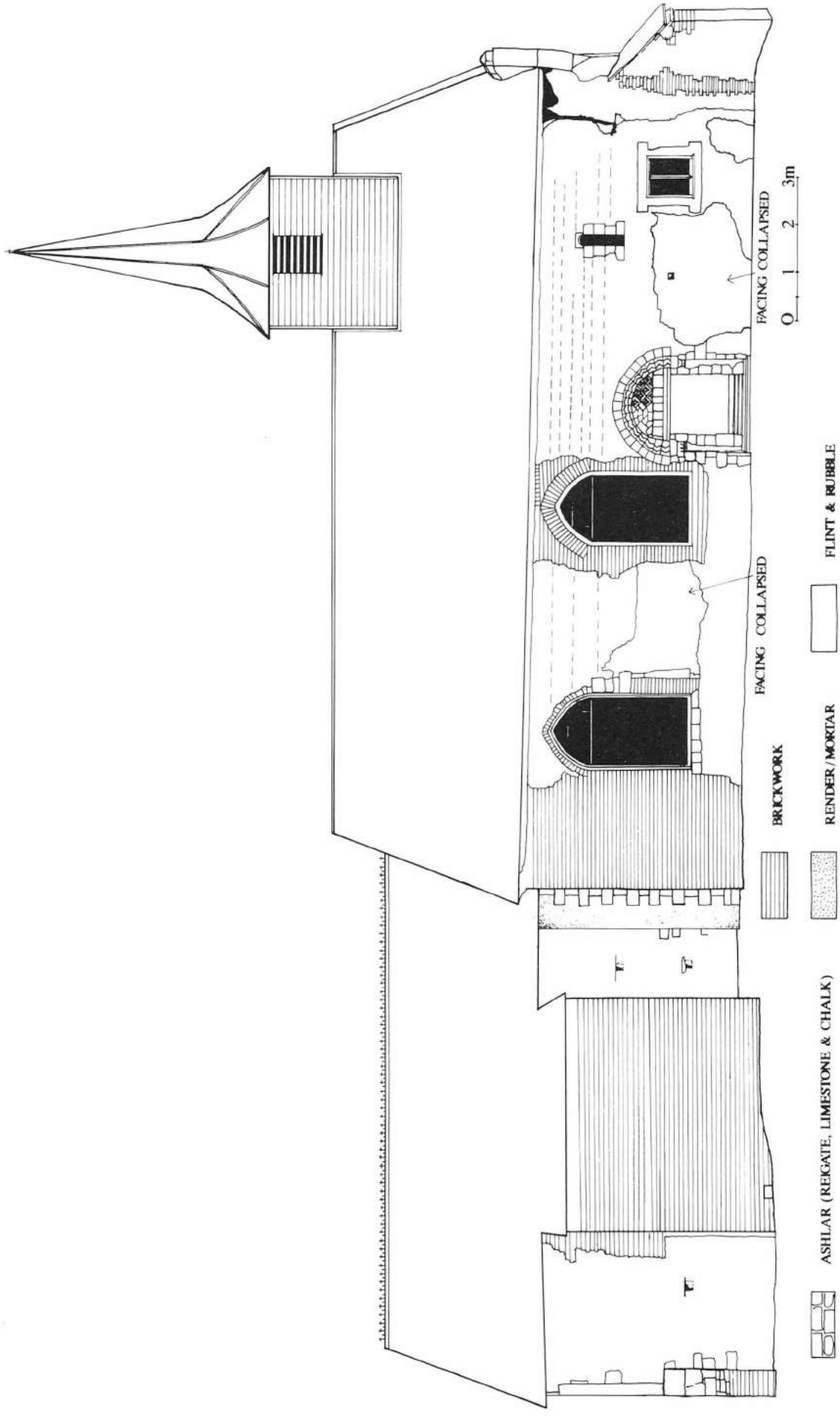


Fig. 2 Lambourne St. Mary. north elevation. (M. Walsh)

II. 13th century

The chancel is built of slightly different, more tightly packed flint masonry, bonded with a whiter mortar. In the south and east walls, occasional pieces of Reigate and chalk are present, whilst the gable of the east is almost entirely of chalk. There were no obvious indications that this was a later rebuild. Putlog holes were found about 4 feet (1.2m) up from ground level, with a second stage present about 3 feet 6 inches (1.06m) above these. Some of the putlogs were capped with wooden boards. The clasping buttresses looked original, albeit much rebuilt. The different masonry of the chancel supports the dating of it to the 13th century by the RCHM on the basis of a low-side lancet window in the south wall.

III. 14th century

To this period may be attributed three former windows, evidence for which was revealed by the removal of the render:

(i) beneath the cill of the east window were several large blocks of Reigate from an earlier window, including a cusped fragment. This window was probably in the Decorated style.

(ii) the easternmost nave windows, now made in brick, were set within earlier windows, the Reigate cills and western jambs of which partially survived. The proportions of these windows suggest they were two-light, and it is assumed they were also Decorated.

IV. 15th century

(i) it was possible to glimpse the eaves construction of the roofs, which inside are ceiled, though the crown-post of the nave is exposed although encased in 18th-century stucco. Both roofs are medieval, and a 15th-century date is suggested for them. The chancel rafters have a hollow chamfer cut in the soffit of their feet, a detail which can be paralleled at Stondon Massey belfry which has been tree-ring dated to 1408. Some patching on the north side of the east gable, which includes some bricks, was probably contemporary with the construction of the chancel roof. Daub infill probably survives between the rafter feet of the nave.

(ii) about 1m below the eaves of the south wall of the nave, there is band of somewhat different more tightly packed masonry indicative of a rebuild which might have been contemporary with a renewal of the roof.

(iii) again on the south wall of the nave, westwards of a point a little to the west of the Norman door, the masonry looks different, as if this end of the wall has been rebuilt.

(iv) at the west end of the north wall of the nave, a crack, combined with a different type of masonry (tightly packed stonework in a greyish earthy mortar, overlain by a possibly contemporary deep set whitish render coat) reveals that this part of the wall has been rebuilt. On the south side at the same point, there was a very clear area of disturbed masonry indicative of a rebuild. There can be no doubt that the entire west wall has been rebuilt. A late 15th-century date for this work is proposed for two reasons. First, brickwork stitching occurs across the apparently contemporary diagonal buttresses. The bricks look 15th century, and could not be earlier than that century. One which was sampled was overfired, rather crudely made with sunken margins and measured 200-210 x 100 x 50mm. Second, the 18th-century oval window of the west wall was set within the jambs of a large earlier window 6 feet 6 inches (1.98m) wide and almost certainly Perpendicular. It would be logical to associate either this rebuild, or that described under (iii), with the construction of the timber belfry at the west end of the church. However this belfry has not been examined and its dating is uncertain.

V. 18th to early 19th-century Georgian work

The church was largely remodelled, but the work seems to have been spread over several phases which are not easy to put in sequence. The following is a suggestion:

(i) the west door and the oval window above it (Fig. 3) look contemporary and are dated by an inscription to 1726. To the north of the door is a refacing in brickwork (230 x 105-110 x 55-60mm, many overfired) which looks of the same date. The pointing is struck, and the bricks bear traces of limewash indicating that initially at least this wall was not plastered.

(ii) in the south wall of the chancel, a blocked doorway made in 18th-century brick was found. This consisted of an inserted brick doorframe, the right-hand jamb of which was removed when the door was blocked. Presumably there was a wooden doorcase resembling that of the west door built round the brickwork. The door must have been short-lived, as on the inside face of the wall there is a Lockwood monument of *c.* 1746. The blocking is made of a motley of different types of brick, including flooring pammets.

(iii) the pointed-arched windows in the nave, which are made with brick surrounds. The most easterly in the north wall is continuous with an extensive refacing in brick running as far as the east end of the nave. The bricks measure 225-30 x 100-110 x 63mm, and

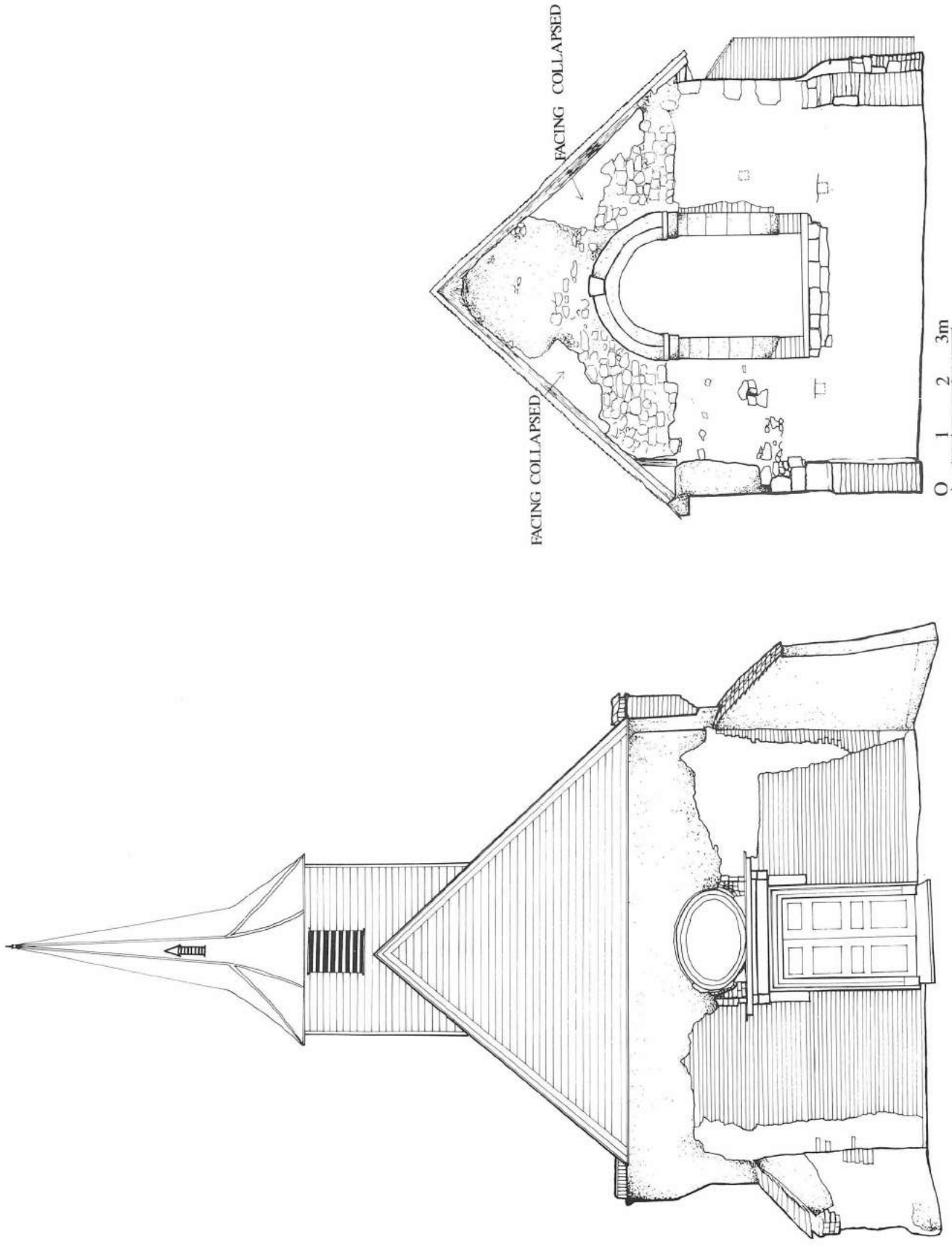


Fig. 3 Lambourne St. Mary: west and east elevations. (M. Walsh)

some of them are over-fired. A date around the middle or in the second half of the 18th century is proposed for this brickwork.

(iv) the surround to the neo-classical east window is made of a fine-textured stucco which is purply-brown in hue. It is lined out in imitation of ashlar. This original surround had been largely concealed by a later cement skim repair. This window must be contemporary with the round-arched windows inserted in the chancel. The surround of the westernmost of the two windows in the south wall was formed in London Stock-type bricks which are unlikely to have been used before the end of the 18th century, implying a date at that period for the remodelling of the chancel.

(v) there is evidence that the church was plastered with stucco rusticated quoining. The removal of the cement was not followed in detail, but it was noted that it covered one or perhaps two layers of lime plaster mixed with hair. In places the wall surface had been levelled up with peg tiles laid flat against it. On the north side, at the junction of the nave and chancel where the wall steps inward twice, there is rustication formed in stucco. Curiously the rustication occurs in the first salient of the step, not at the angle as is usual, though it may have been lost in this area where there have been cement repairs. The plaster and stucco here is in a soft gritty lime mix, and had been limewashed many times, generally an off-white or cream colour but also pinkish.

VI. 19th-century work, again not necessarily in order of construction

(i) the brickwork on the south side of the west door is different to that on the north in being of a differing size (215-220 x 105-110 x 60-70mm), in having a slight plinth, and in being bonded with a somewhat grittier mortar. The thicker bricks and gritty mortar indicate a 19th-century date, perhaps towards the middle of the century.

(ii) a large patch in the south wall of the nave to the west of the Norman door must be 19th-century as the bricks (220 x 110 x 60mm) have horizontal pressure marks.

(iii) an organ chamber was added to the north wall of the chancel in 1889 (VCH IV, 1956, 82), an extensive refacing to the east of it being continuous with its brickwork and part of it. The bricks measure 225-230 x 105-110 x 65-70mm.

VII. 20th-century work

The most significant feature is the small rectangular window with a stone surround which according to a plan made by an architect inside the church dates from 1933. A brick plinth has also been added to the base of the south side of the nave.

This undressing of the masonry fabric of the church has shed light on the detail of its development and evolution without revealing any very notable discoveries. That evidence of significant changes can escape detection is shown by the absence of any obvious trace of the porches mentioned in a visitation of 1683 (Pressey 1930, 266). Several aspects of the building warrant further investigation, in particular the date of the belfry and the impact of its insertion on the west end of the church, and the 18th-century modernising.

In view of the remarkable remodelling of the interior in the 18th century, it is unfortunate that the work is poorly documented. The gallery bears the date 1704 and the west door 1726. Churchwarden's presentments of 1727 and 1731 described the church as having been recently "repaired and beautified" at a cost of more than £200. A dispute over the failure of the churchwarden to account properly for the work on the church has left tantalisingly inadequate references to it in the vestry book (ERO D/P 181/8/1). The work indeed cost £219.18s.9d. A carpenter was paid £61.8s.6d and bricklaying cost £14.11s.10d. 9000 bricks, 9000 roof tiles and 180 paving tiles were bought. When ten years later the vestry tried to recover the missing funds from the former churchwarden's son and executor, the irregular works carried out without the consent and licence of the parish consisted of moving the pulpit, pulling down the church porch, and selling and disposing of materials and goods (ERO D/P 181/8/2, f.34v). Although there is a logic to seeing the 1726 works as involving the total refurbishment of the church, as W.R. Powell did in his account of it in the Victoria County History (VCH IV, 1956, 82), the historical evidence is not conclusive on this point and the evidence of the fabric itself can be read to indicate that the work took place in stages during the century. The brickwork to the north of the 1726 doorway and contemporary with it is somewhat different to that round the pointed arched windows which looks rather later. Indeed such gothic revival windows are unlikely to date from before the middle of the century. It is suggested that the chancel may be a little later still as the surround of one of the round-arched windows in the south side of the chancel is formed in London Stock-type bricks which are unlikely to date from much before 1800, though this close to London they may be rather earlier. The vestry books only make cursory and infrequent reference to building works which were clearly mostly minor interventions, but it is perhaps worth noting that in 1796 £84 was spent on the church for what included its repair, whitewashing, and painting and other work (ERO D/P 181/8/3). It is likely that the inspiration for this remodelling, and the source of the funds for it, was the Lockwood family who were the dominant influence

in the parish from the 1730s. They enlarged and refronted their seat Dews Hall (now demolished) in the classical style (VCH IV, 1956, 80), and their monuments fill the church.

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West Mersea, St. Peter and St. Paul. Notes on the tower restoration 1996

D.D.Andrews

The repointing and repair of the tower prompted an examination of its fabric, which was recorded by rectified photography. The tower is about 14 feet (4.26m) square, with walls 3 feet (920mm) thick. The original build is mainly of relatively small (4-6 inches, 100-150mm) blocks of septaria set herringbonewise. They are tightly packed together, and there is no obvious evidence of lifts. The quoins are reused Roman bricks, typically 8-10 x 1½-2 inches (200-250 x 40-50mm), some with attached *opus signinum* (a pink mortar made of ground-up brick). The RCHM (III, 1923, 230) dates the tower to the late 11th century.

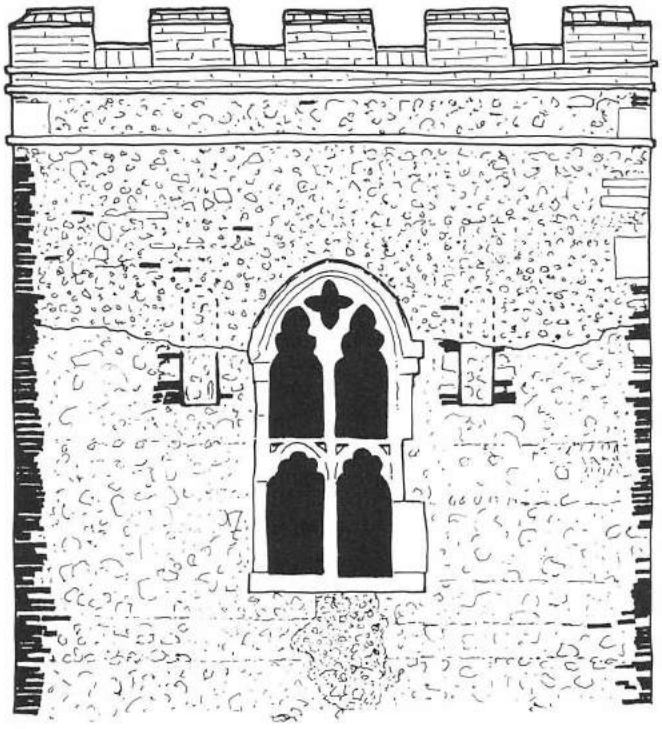


Fig. 4 West Mersea, St. Peter and St. Paul, sketch of the west side of the tower showing the Romanesque windows and rebuild at the top.

The bonding material used for the original build is a somewhat sandy yellow-brown mortar which contains moderate quantities of seashells and pebbles. Its colour is a good match for the septaria, being only slightly lighter than it. It is generally a little harder than the septaria, which typically has weathered back behind the mortar. Careful examination of the wall surfaces revealed on the west and north sides towards the base of the tower remains of a render identical to this mortar and apparently original to the construction of the tower. This covered not just the stonework but the quoins as well.

There are large two-light 14th-century windows made of Kentish Rag at the level of the bellchamber in each wall. The rectified photographs revealed the existence of blocked Norman windows to each side of these in the east, south and west walls (Fig. 4). They are best preserved in the east wall. Their dressings are mainly in Roman brick, and they are about 14 inches (355mm) wide and about 4 feet 7 inches (1.4m) high. The blocking of these windows is in a mortar which seems to more closely resemble that of the original tower construction than the paler one associated with the 14th-century windows, and it may be that they had been blocked before these were inserted. The RCHM did not remark upon the existence of the Norman windows and it seems that they have escaped previous record. There may have been a third central window now superseded by the 14th-century ones. Alternatively, as at Little Bardfield, there may have been two widely separated windows with a closely set pair beneath them.

On the south wall, about half way up, there are Roman bricks which form part of an arch and look as if they mark another window. However there seems to be no blocked aperture associated with this feature.

The absence of Norman windows on the north side is probably to be explained by this having been rebuilt or refaced. The RCHM recognised that the top of the tower was a rebuild. This phase is distinguished by the use of flint rather than septaria, and a paler mortar. A coarse shelly tabular stone (?weathered Purbeck), probably reused from elsewhere in the church, was used for some of the quoins. This rebuild generally starts at about the level of the springing of the bellchamber windows, but on the north side seems to extend rather lower. The rebuild may date from the insertion of the windows, or may be contemporary with the crenellated brick parapet which has been rebuilt in modern times but which is made of Tudor brick and which can be dated to the late 15th century.

Traces of several later phases of rendering can be identified on the tower. They include the following (in probable chronological order):

1. In the angle with the south aisle, there survives portions of a white soft lime hair plas-

ter which covers the original render and presumably extended over the entire building. This looks 18th-century in date.

2. At the top on the east side, there are the remains of a pale rather gritty scratch coat which looks 19th-century in date. This is overlain by, and earlier than, the tile string course which runs round the top of the tower and seems to belong to a recent rebuild of the parapet.

Steeple Bumpstead, St Mary

D.D. Andrews

In winter 1996-97, various works were carried out, notably the releading of the chancel roof, and the renewal of the rotten pew platform in the south aisle. In the course of the latter, two vaulted brick-lined graves were found. They were situated end to end at the north edge of the pew platform (i.e. about 1m from the aisle wall). They were about 1m wide, the more westerly being 1.84m long and the more easterly 2.3m long. Wall monuments explain the discrepancy in length: the more easterly is the vault of a child, Mary Georgiana Priscilla Gent (ob.1833), whilst the easterly is occupied by Eliza Mary Gent (ob.1846), and George William Gent (ob.1855). The Gents were the owners of Moyns Park and had their pew in the south aisle, as a large box tomb further east records. Doubtless the box tomb marks the position of a communal vault. If this were full, then it might explain why brick-lined shafts were preferred for these members of the family. Graves of this type could accommodate more than one individual as coffins could be stacked one on top of the other. The eastern grave had a metal pipe, presumably a vent, leading from it and up the south wall where it may have exited in the window cill.

In the south part of the aisle there was a strong clay loam which might have represented a levelling layer from the time of its construction. It had a compacted surface covered with lime mortar, probably the result of trampling during the course of building works rather than representing a floor level in its own right. The south aisle wall was observed to have a deep foundation. The plaster on it is fairly modern and of no historic significance. Plaster removed from the interior of the west wall of the porch revealed a rear arch to a blocked window like that in the east wall. It is unclear why the north half of this wall is built of reused ashlar and the south half of flint.

Walthamstow St. Mary. The medieval church and the 18th-century vaults at the west end

D.D.Andrews, G. Barrett and J.W.S. Litten

Introduction

St. Mary's is a plain building in the gothic style enveloped in a drab coat of buff cement render. Its building history is exceptionally complex (cf. Bosworth 1916), but for the most part that render must conceal fabric no earlier than the 19th century when there was a succession of reconstructions. These were made possible by the wealth of the parish, which was long a fashionable village at the eastern edge of the City. The wonderful table tombs and monumental masonry of the churchyard, as well as the fine monuments which survive inside the church, are a reminder of its former prosperity.

The somewhat uneven floor at the west end of the church beneath the gallery and organ loft was lifted and relaid in 1996-97. The floor itself consisted largely of ledger stones, the weight of which had caused them to settle. It was, however, also appreciated that the settlement process was contributed to by graves and vaults, and that these would be encountered during the works. Despite keeping the reduction in ground level to form the base of the new floor to a minimum, it became apparent that it would be necessary to break open the tops of the vaults which were found. To respect and preserve their contents, they were sealed by a covering set at a lower level made of concrete lintels and blockwork in the same way that a suspended floor is commonly constructed. The lintels were set on the brick sides of the vaults which sometimes required strengthening with concrete.

Recording took the form of a watching brief as work progressed. The objectives were to plan the discoveries, identify the occupants of the vaults and burials, and to record them and the coffin furniture and other features by photography. More detailed documentation was judged unnecessary as the burials were mostly undisturbed and the funeral furniture and other artefacts remained *in situ*. The dead were respected, and it will be left to future generations to decide whether their repose should be inviolate or whether academic imperatives require exhumation. The qualification 'mostly' is necessary because where the cast iron columns of the organ loft and gallery rested on vaults or coffins, new supports had to be constructed which involved moving coffins to new positions.

The intensity of burial within the church had almost totally eliminated any opportunity for the survival of archaeological deposits relating to earlier phases of the church. However, some discoveries were made, and these, and the vaults, are described below in chronological order.

Medieval discoveries

To the west of the westernmost pier, in line with the south arcade, a foundation was uncovered built of mortared flints and pebbles averaging 50-80mm in size (Fig. 5, indicated as 'rubble foundation'). The depth of this foundation extended at least 900mm below floor level. On the south side it had been cut into by an unidentified 18th to 19th-century coffin, but to the

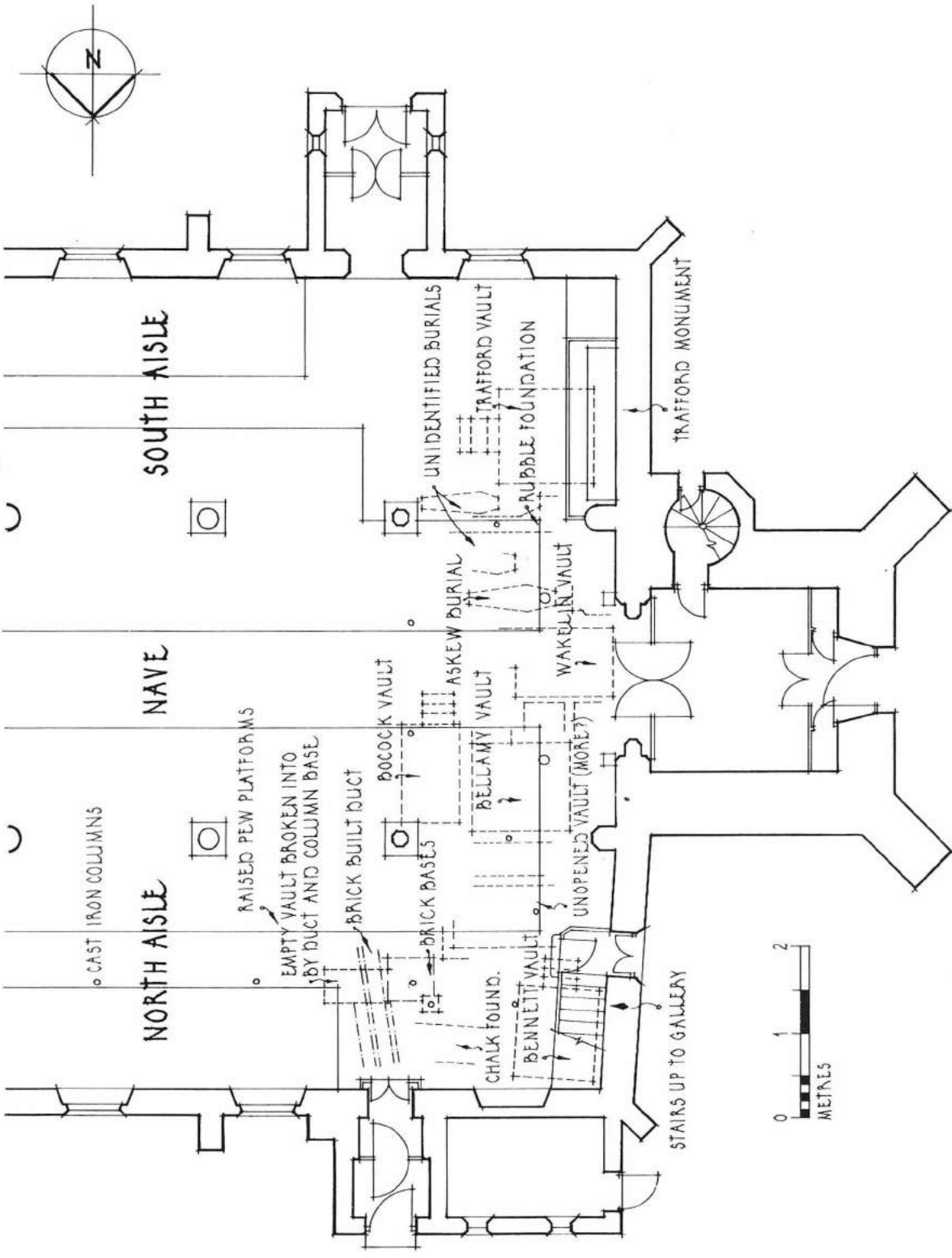


Fig. 5 Walthamstow St. Mary. Plan of the west end of the church showing the discoveries made during the relaying of the floor.

west it seemed to be preserved to its full width of apparently 840mm (2 feet 9 inches).

About 650mm from the north wall of the church, another foundation was encountered in the side of a grave cut, the fill of which had subsided. This was built of chalk blocks 125-200mm in size bonded with a brown sandy mortar. Again, this foundation (Fig. 5, indicated as 'chalk foundation') extended to a depth of 900mm and was 840mm wide. Although only a short length of it was exposed, it seemed to be misaligned to the main axis of the church, and apparently at right angles to the west wall of the aisle which is, unaccountably, askew to the other walls at this end of the church (Fig. 5). The east wall of the north aisle is also askew, so that the aisle is trapezoid in shape. (That both these walls are skew is not shown on published plans of the church, but has been confirmed by a recent survey).

That the rubble foundation was mortared suggests it is not of great antiquity, not for instance Saxo-Norman in date. It would be reasonable to suppose it was constructed in the 12th century. By that time chalk was in use as a building material in London, and the chalk foundation need not be any later than that. However, because the rubble foundation apparently predated the arcade and the addition of a south aisle, whilst the chalk foundation was patently associated with a northward extension of the church in the form of an aisle only 2m wide, the chalk foundation must be the later. Observation of Essex churches, and indeed London ones (Schofield 1994), indicates that more important churches had commonly acquired aisles by the 13th century, and it is to that period that the chalk foundation can be provisionally assigned. Indeed, the Royal Commission on Historical Monuments, with typical insight, argued from the round columns of the arcade that St. Mary's had aisles by the 13th century (RCHM 1921, 246). These foundations indicate that the west end of the medieval church was in approximately the same position as the existing one, and that the nave width (3.5m) is also inherited from the early church. The initial north aisle, which as has been seen was only 2m wide, would doubtless have relatively soon been replaced with a wider one. It is only possible to speculate as to the reasons for the skewness of the walls of the north aisle.

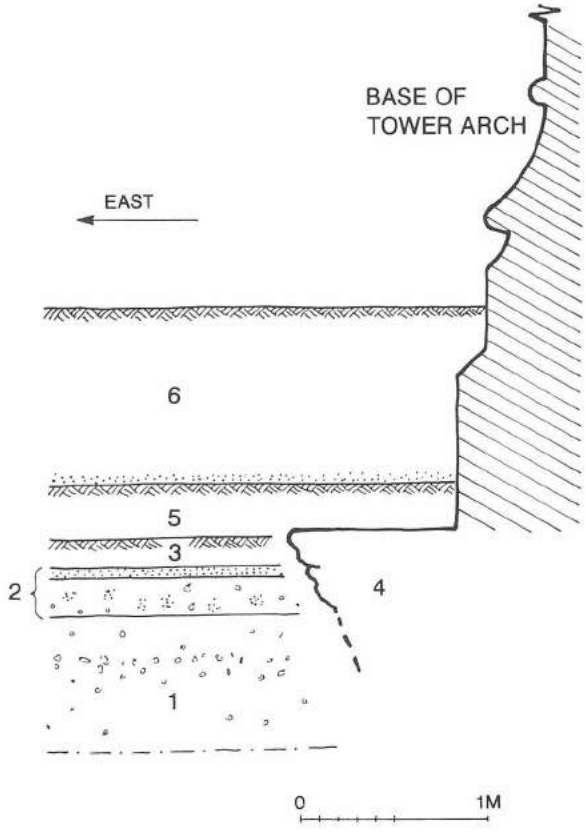


Fig. 6 Walthamstow St. Mary. Stratigraphic sequence preserved at the south side of the tower arch. For an explanation of the numbers, see text.

In general the archaeological deposits at the west end of the church consisted of a soft loose fill which must originate from the continual excavation of graves, the construction of vaults, and works for the galleries which date originally from 1710 but were renewed and enlarged in 1807 and 1876 (cf. Bosworth 1916). In the approach to the south porch, and at the west end of the south aisle, there were clayey layers which seemed to represent old surfaces which are likely to be of medieval date. To the north of the rubble foundation and cut by it, there was a blackish soil containing charcoal and human bone. This looked like a midden deposit or dark earth. The human bone, admittedly a single fragment, raises the possibility that the church had been repositioned or enlarged within a pre-existing churchyard, from which it may be inferred that there had been a previous church on the site.

Adjoining the south side of the tower arch, a small island of archaeological deposits had survived the disturbance caused by the burials (Fig. 6). The sequence was as follows (from bottom upwards):

1) a yellowish brown brickearth with pebbles, at least 400mm deep, and 400mm below existing floor level
2) yellow-brown clay with lumps of lime, overlain by a layer of lime, which must represent one or more floor levels
3) an orangey brown hard mortar floor
4) the offset foundation of the brick tower built *c.* 1535 by George Monox, a local dignitary and benefactor who also built a chapel at the east end of the north aisle
5) a yellow-brown brickearth make-up layer with a very smooth surface with traces of lime mortar bedding
6) the existing floor and its make-up

Inasmuch as it presumably overlay the dark-earth type layer cut by the rubble foundation, the lowest layer (1) may represent make-up for a floor level associated

with that foundation which it is assumed dates from the 12th century. Overlying this were at least two floor levels which predated the tower of *c.* 1535. The post-medieval period saw a rise in floor level of about 450mm. The floors were made of tiles or else, in the case of the post-medieval ones, bricks and pammets.

Post-medieval floors

A brick floor 6 inches (150mm) lower than the existing one was found just inside the tower. It consisted of bricks (220 x 110 x 220mm) probably of 18th-century date. Along the north wall of the tower, the floor was made of pammets about 10 inches (250mm) square. Some pammets also occurred on the south side, but here and in the central area of the tower, the floor was missing. The bricks may have represented a repair of a pammet floor since they were present in the area of the tower arch which would have taken most wear. (An old pammet floor was also found preserved in the cupboard under the north end of the west gallery).

Since the floor in the nave could not have been at this level once the vaults were built, there must have been a step down into the tower. The existing uniform floor level throughout the west end of the church and the tower probably dates from 1924 when, according to an inscription carved on the oak seating, there was a restoration.

The vaults and coffin burials

As well as two vaults which were no longer sealed and two coffin burials, four intact vaults were found. They comprised the Bellamy and Bocock vaults to the left of the central alley under the gallery, the Trafford vault at the west end of the south aisle, and the Bennett vault at the west end of the north aisle. The vaults are not particularly large, having side lengths which measure usually 6-7 feet (1.83-2.13m). The Bellamy and Bocock vaults have blocked stairs on their south sides accessed from the central alley. The Bennett and Trafford vaults have stairs, now blocked, originally entered from the alleys in the aisles. The stairs have only a few deep steps, sometimes with wooden treads. All the vaults are made of red brick which looks generally 18th-century in type. Some bricks have diagonal pressure marks, and some have inclusions or are rather variable in colour which show them to be a type of London stock brick. The blocking in the Bocock vault is in a whitish brick which may be a stock brick. With the probable exception of the Bennett vault, all the vaults had been broken into before and in most cases the contents disturbed. Apart from the Bocock vault, the coffins were generally made in three layers with a lead shell surrounded by inner and outer wooden casings. The outer casing had usually disintegrated, sometimes making it difficult to associate the coffin furniture with the occupants of the vaults.

The Trafford vault

This vault has been identified as belonging to the Trafford family because of its proximity to the Trafford monument erected by Sigismund Trafford to commemorate his wife Susannah who died in 1665. There are at least five coffins in two layers. At some time, the top of the vault has been broken into and then sealed with a ledger. The remains of the very poorly preserved outer wooden cases had been tidied up and the depositum plates on the lead shells stolen, so that it was impossible to confirm the identification of the occupants. All that was visible were the lead shells of the uppermost layer of coffins, though it was possible to catch a glimpse of high quality furniture on a coffin located in the lower layer.

The Bellamy vault

The vault contains four coffins aligned east-west, two neatly stacked one on top of the other, another to the north, and against the head end of this an infant's double wooden shell. Although the crown of the vault had been broken through on two previous occasions, the contents had not been disturbed. A water-gilded name plate belonged with the coffin against the north wall. It reads 'Dame Elizabeth Bellamy died March 16th 1740 aged 53 years.' The plate was specially made as it has a coat of arms with Bellamy impaling an unidentified coat with three lions rampant in chief. Probably associated with this coffin were stamped lead grips with a 'bizarre' floral design (Plate 2, no. 3).

The upper of the two coffins at the front of the vault has a lead plate identifying it as belonging to 'Humphrey Bellamy Esq Died 22 August 1767 Aged 56.' The lower coffin was presumably that of Sir Edward Bellamy, who was an Alderman and Lord Mayor in 1734-35 (Beaver 1912, II, 125), and who died in 1749 according to the parish registers. Associated with this coffin were high quality gilded grips with chinoiserie decoration of an unusual design (Plate 2, nos. 1 and 2). The tin-dipped stamped iron depositum plate of the infant's coffin had rusted away.

The Bennett vault

This contains three coffins aligned north-south and is apparently undisturbed. The floor along the south side of the vault has subsided, probably into an earlier east-west aligned grave. The occupants are commemorated in a wall monument at the west end of the church, now on the stairs up to the gallery. On the west side of the vault a coffin has a water-silvered lead plate to 'Mr. John Bennett Died 15th July 1791 Aged 37.' Of the other two, the upper coffin has a plate which reads 'Mrs Elizabeth Bennett Died 12th March 1799 in her 76th year.' It is assumed that the coffin below Mrs. Bennett belongs to her husband.

The Bocock vault

This vault shows clear signs of disturbance, with handle plates stacked on top of the remains of the uppermost coffin. A vertical column of bricks bonded with

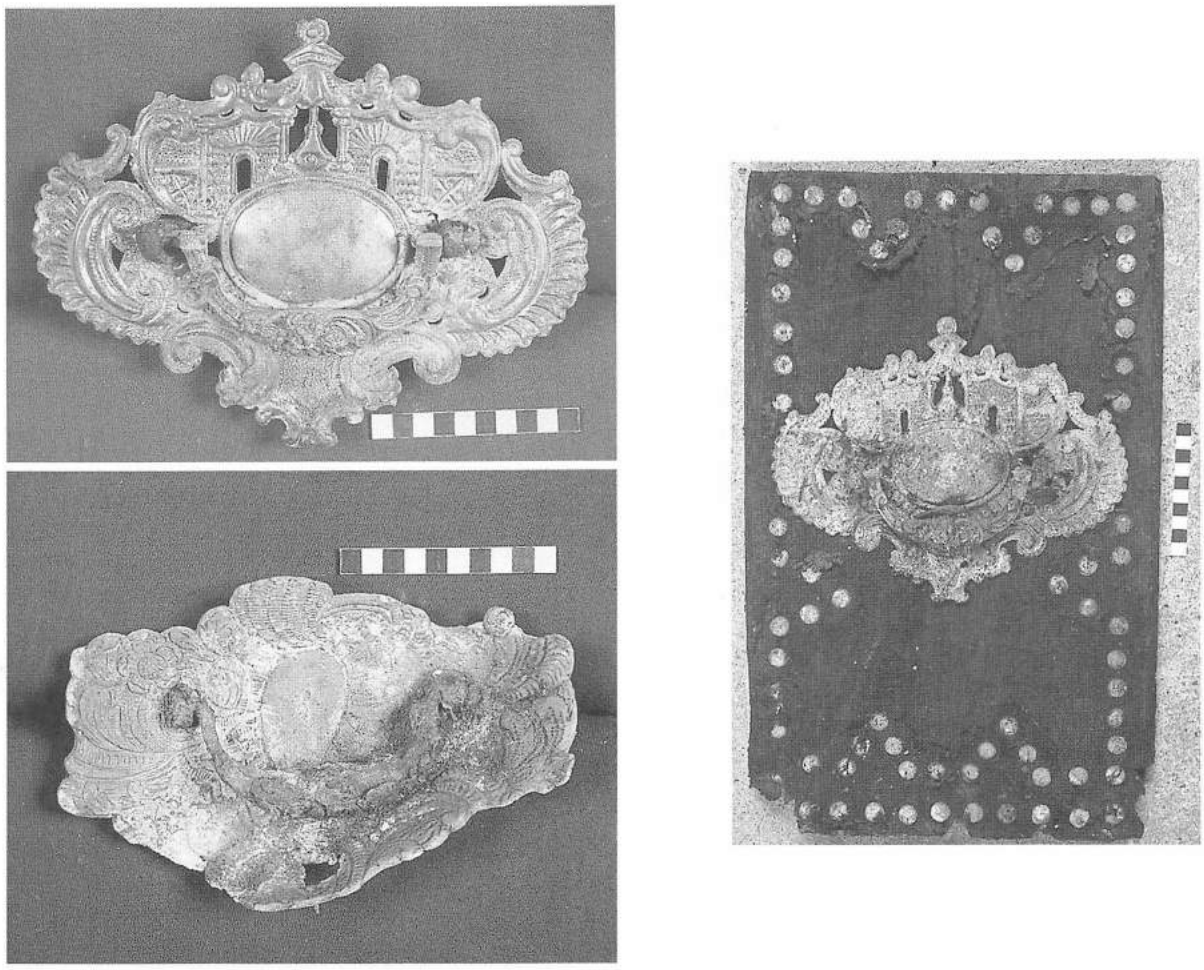


Plate 2 Walthamstow, St. Mary. Coffin furniture. 1 (right). Foot board from the coffin of Sir Edward Bellamy (ob. 1749). 2 (top left). Grip plate, Sir Edward Bellamy 3 (bottom left). Grip plate, Dame Elizabeth Bellamy (ob. 1740). Linear scales in centimetres.

cement mortar in the north-east corner of the vault indicates that the vault was entered when the adjacent pier supporting the gallery was underpinned, probably in 1924. The west wall of the vault has rough-faced brickwork which was originally laid as a revetment against the earth. This is in fact the side of the Bellamy against which the Bocock vault was later built.

The vault contains at least two, maybe three, coffins. A plate on the uppermost coffin records Mrs. Isabel Bocock, died 11th February 1807 aged 77. Above the plate is a 'glory', and below it an urn, both in pressed sheet metal and now no longer fixed to the wood. This coffin was made with two wooden cases and no lead shell, a type of construction of indifferent quality.

The Wakelin vault

Two huge ledgers in Purbeck marble formed the paving in the central alley just to the east of the tower arch. Settlement beneath these stones suggested that they covered an infilled vault and this was confirmed by further investigation. The bricks of the vault measured 220 x 60mm, and did not include London stocks. Strangely the sides of the vault were vertical and came within 6 inches of the existing floor level. Either the vault was covered by joists, or it was almost flat, or the floor level was higher than today, or there was a table tomb in this position. The first of these possibilities seems the most likely, though it would be an unusual arrangement.

A lead coffin plate was found sticking out of the fill, and beneath it the head end of a lead shell set at an inclined angle. The coffin plate read: 'Philip Wakelin Esq. Died April 16th 1808 Aged 46 Y'. The ledger nearest the tower is worn smooth but it was just possible to make out the name Wakelin. Removal of the ledgers and part of the upper fill of the vault revealed another lead coffin, doubtless one of several.

Coffin burials

Just to the south of the Wakelin vault, and only 2 feet (600mm) below floor level, a triple shell single break







Plate 3 Walthamstow St. Mary. Coffin furniture. 4-6 (top to bottom). 'Glory', depositum plate and urn from the coffin of the Revd. Adam Askew (ob. 1791).

coffin was found. The depositum plate (Plate 3, no. 5) read 'The Revd Adam Askew Died 23d Feby 1791 Aged 68.' Askew does not figure amongst the recorded rectors of Walthamstow. Two unidentified coffins were found in the same area at a similarly shallow level.

Coffin furniture

The coffin furniture from the vaults is fairly standard of its type but includes some items of interest. It is similar to the large sample examined at Christ Church, Spitalfields (Reeve and Adams 1993), though exact parallels are few. Indeed the motifs and designs are strikingly uniform and conservative throughout a 60-year period. Thus the frames of the depositum plates belonging to Mrs. I. Bocock (ob. 1807) and Mr. J. Bennett (ob. 1791) are very similar, and similar patterns occur on the plates of the Revd. Askew (ob. 1791, Plate 3, no.5), Mr. H. Bellamy (ob. 1767) and Mrs. E. Bennett (ob.1799).

The coffins were covered with textile which was decorated with rows of upholstery pins. The depositum or breast plates were made of lead and rectangular with a deeply stamped frame bearing decoration typically consisting of a floral or foliate scroll motif with a shell pattern at the corners. This frame may be at the edge of the plate or have a further band of similar patterning lying outside it. Within the frame there may be just a memorial inscription, but usually there is further stamped decoration as well. Symbolism seems to be wanting, except in the case of a bird, presumably a phoenix, on the plate of the Revd. Askew. More specifically symbolic are the lid motifs, good examples of which were preserved on the coffins of the Revd. Askew (Plate 3, nos 4 and 6) and Mrs. I. Bocock. These were in both cases the commonly used motifs of a 'glory' and a flaming urn made from stamped pewter foil. The 'glory' from the Askew coffin is almost identical to one from Spitalfields (Reeve and Adams 1993, fig. 5.8). Grips were of cast iron, and in the Bennett and Bocock vaults were decorated with a pair of winged cherubs, the most common type which occurred at

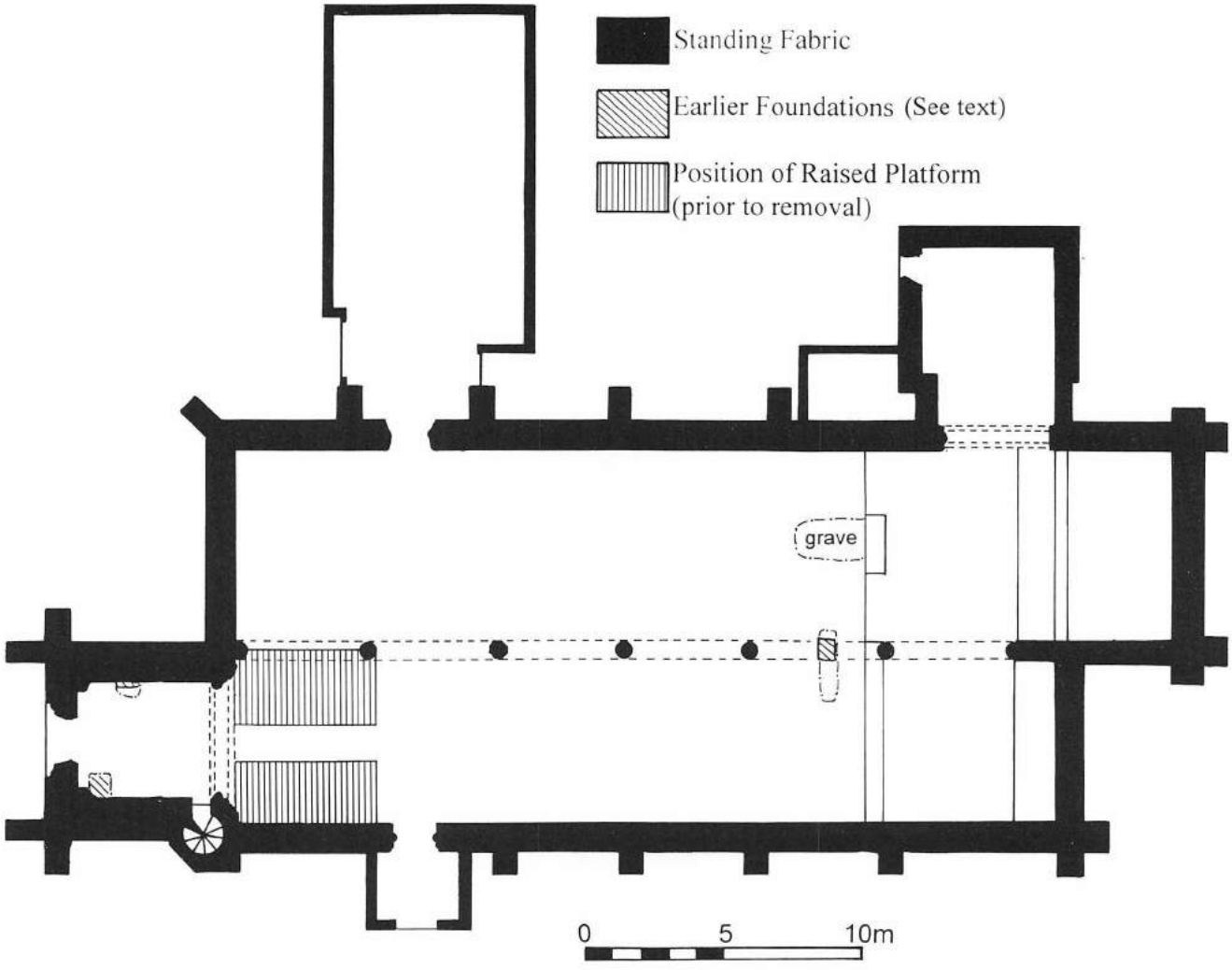


Fig. 7 South Weald, St. Peter, ground plan showing 1997 observations.

Spitalfields. Similar cherubs were present on the grip plates in the same vaults. These grips and grip plates were black lacquered, as was the furniture on the Revd. Askew's coffin. More expensive finishes were found in the Bellamy vault, where the furniture was somewhat different and of a higher quality, no doubt reflecting its earlier date and the mayoral status of Sir Edward Bellamy.

Acknowledgements
The active co-operation of the staff of Lodge and Sons Church Restorers was essential to the success of the securing the preservation of the contents of the vaults and recording their contents. The photographs were taken by David Guthrie and Pete Rogers. The assistance of the late John Gilder in investigating the parish registers is gratefully acknowledged. An archive of this work has been deposited in the Essex Record office and the Vestry House Museum.

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South Weald, St. Peter. Observations on the laying of the new floor, 1997

T.Horsley and D.D.Andrews

St. Peter's was restored by Teulon in 1868. In the 19th century there could be a fine line between restoration and reconstruction, and the latter was effectively what Teulon achieved at South Weald. Today it has the appearance of a Victorian church, though the form of the building respected what Teulon found, that is a nave dating from the 12th century (as indicated by a superb Norman door) and remodelled in the 13th, and a 15th-century tower and north aisle and chapel. However Teulon reversed the roles of nave and aisle, relegating the slightly narrower nave to the status of a south aisle. The scope of the works as described in the faculty (ERO D/CF 7/5) involved taking down 'the whole of the south wall of the said church and arcading of the nave and the porch and buttress thereof and also to take down the whole of the galleries and the present seating of the church with altar rail, reredos and present ringing floor of the tower thereof; to take up the whole of the paving of the church, chancel, chantries and tower with all steps, staircases and certain parts of the roof where necessary and to remove the pulpit and reading desk and font; to take out the present chantry (i.e. north aisle) window next the nave of the said church and to insert a new window and to build a new vestry,' at an estimated cost of £5677.

It was agreed 'That if in digging out for the new floor any brick vaults or gravestones are found the vaults are to be built up secure and arched over and the graves filled in and the remains of any persons interred there are to be carefully and decently removed and preserved and afterwards reinterred in the churchyard.'

The laying of a new tiled floor in 1997 revealed that the plan in the RCHM (II, 1921, 215) is somewhat misleading in that it implies that the fabric of the south side of the nave was retained. Brickwork at the base of the walls shows that this was not the case and that the church, with the exception of the tower, was rebuilt from the ground up. The Victorian work included the raising of the floor level within the church, and since Teulon incorporated the 13th-century piers of the arcade and the Norman doorway into the new building, it was necessary for the piers to be dismantled and re-erected on new foundations, and the door to be reset in the south wall.

Despite the thoroughness of Teulon's work, some discoveries were made during the renewing of the floor. The most significant was the discovery of a short length of medieval foundation between the piers of the second bay from the east end of the south aisle (Fig. 7). Incorporated in the mortared flintwork were a piece of Roman *tegula*, and two other pieces of terracotta, probably fragments of floor tile and pegtile. Unsurprisingly, Roman tile has not previously been recognised at this church. Because of its thickness and sandy fabric, the pegtile can be compared to the early examples known from Cressing Temple and elsewhere and attributed to the 13th century. The floor tile can be identified as such because it has an undercut edge. It too may be early as it is rather thick (33mm). If correctly identified, these fragments are important in that they show that this wall must belong to the 13th century (or later) by which time the nave had been extended eastwards. Since the arcade also dates to the 13th century, the position of this wall indicates that the Norman church was probably extended prior to the addition of an aisle. In the light of these observations and an analysis of the fabric of the building, phase plans have been prepared tracing the development of the church through the centuries (Fig. 8).

In the tower, only a limited area of pre-19th century archaeology was visible through the gaps in the Victorian concrete. The foundations of the 15th-century tower were observed protruding about 100mm (4 inches) from the centre of the north wall. More extensive and coarser foundations were seen in the south-west corner, where the mortar was far more silty than the sandy mortar by the north wall. These apparently different foundations may indicate the presence of an earlier tower.

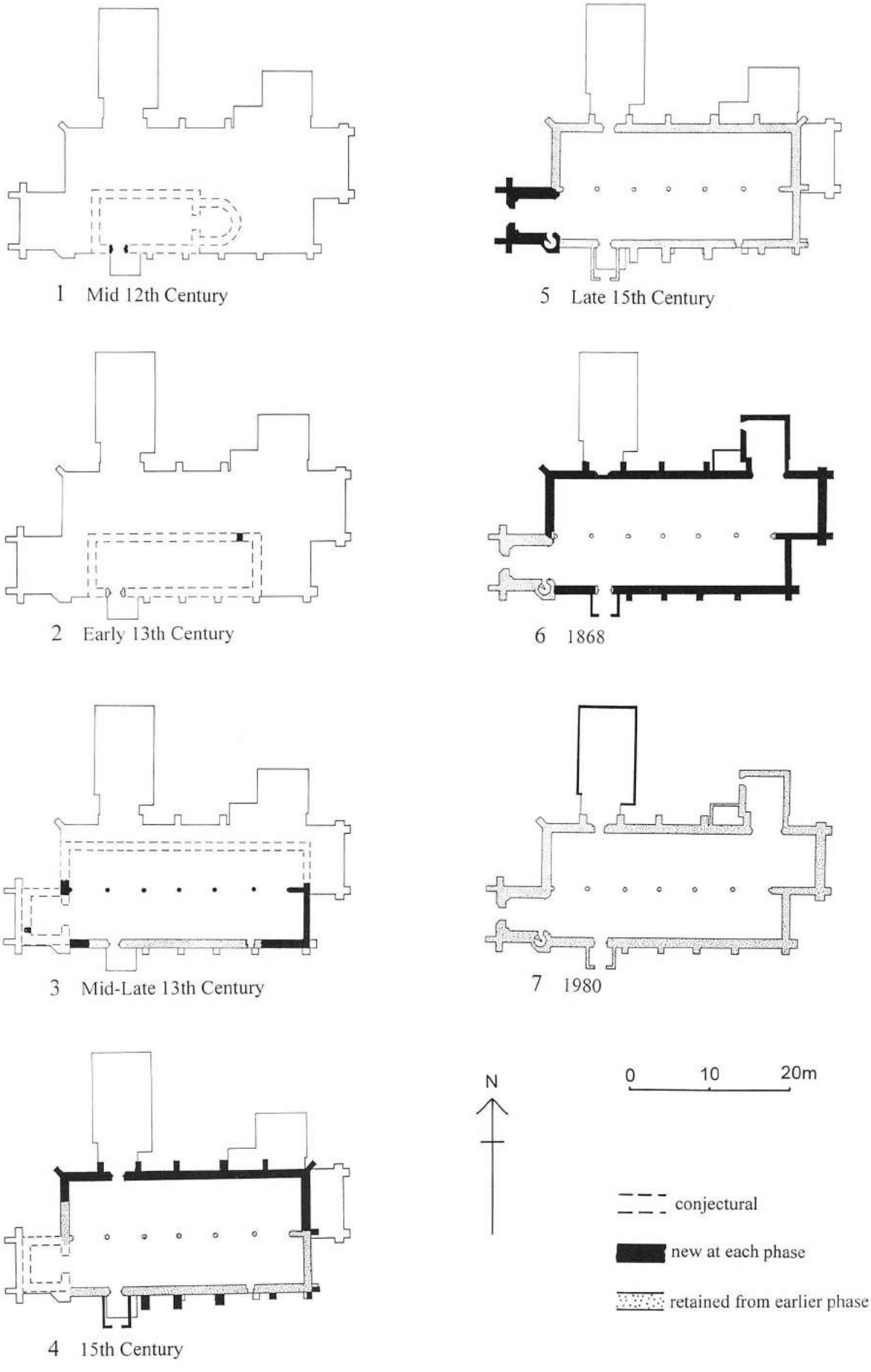


Fig. 8 South Weald, St. Peter, phase plans tracing the development of the existing church.

At the east end of the nave, at the foot of the chancel step, a grave was found containing two coffins, one on top of the other. Within the uppermost coffin was found a number of disarticulated bones, including five hip bones and a sacrum (from at least four different individuals), two shoulder blades (probably from the same individual), and various other long and small bones. These bones were well mixed within the earth fill of the coffin. A brass lid motif was also discovered in a void where the foot end of the coffin extended under the modern chancel step, and it was probably originally attached to the lid at this end of the coffin. Its asymmetrical design is similar to some lid motifs found in the crypt of Christ Church, Spitalfields.

No wood remained, but the outline of this upper coffin was visible as a dark brown stain in the soil. In addition to the lid motif, the coffin furniture comprised eight cast iron grips, each decorated with two winged cherubs, a popular design from the second half of the 18th century to the first half of the 19th century. Remnants of tin grip plates were attached to two of the grips, but were too corroded for any decorative motif to be discerned. No breastplate giving biographical details was found associated with this coffin, although a possible fragment of a breastplate was mixed in with the bones. Around the sides of the outside of the coffin were two rows of tin-plated iron upholstery pins, one around the top, and the other around the base.[1]

The lower coffin had a considerable amount of wood still intact, and encased a lead shell, the top of which had been crudely hacked open sometime in the past. An articulated skeleton appeared to be *in situ*, but was left undisturbed. Brass upholstery pins were still arranged in alternate triangles and semicircles around the top surviving wood of the lid; the sides were not exposed. Attached to some of these pins were very small fragments of textile. Two breastplates were found within the coffin, the lower being of brass and commemorating Abraham Culver, one time magistrate of Havering atte Bower, who died in 1756. It is rectangular in shape and included in the design is his coat of arms. The upper lozenge-shaped breastplate is in pewter, and is dedicated to Anna Marie Curtis, who died in 1806.

The original stone from this grave exists outside in the path, having been removed with other flagstones during the restoration. It indicates that in addition to Abraham Culver and his niece A.M. Curtis, Abraham's brother Richard was buried in the same grave in 1787. Since the coffin plates were found for only the earliest and latest burials, one of the three was probably translated to the churchyard. Perhaps two were, as the topmost coffin did not contain an articulated skeleton and had clearly served as a repository for charnel. The opening of the coffins and their filling with earth may have been intended to avoid subsidence. However, it was in precisely in this area of the modern floor that the tiling was most uneven, requiring the laying of the new floor in 1997.

In the course of lifting the pew platforms at the west end of the church where an open tiled area is to be created, medieval timbers were found reused as joists in the 19th century. Their excellent condition does credit to the construction of the sub-floor voids, which were sealed with pitch at ground level and ventilated with ceramic pipes which ran beneath the solid tiled floors linking the platforms within the body of the church with those adjacent to the walls where vents were located. About half a dozen timbers were removed with a similar pattern of joints cut in them. Although having the appearance of lap joints, they were originally mortices, the timbers having been cut in half in the 19th century. They were good quality straight timbers about 7 inches (180mm) square made from fast-grown trees with insufficient rings to be tree-ring dated. The joints comprised two long almost continuous brace mortices, either side of which was a single mortice. Although there can be no doubt that these are principal rafters from a 14th to 15th-century church roof with arch bracing, the reconstruction proposed in Fig. 9 must be regarded as tentative. It is equally uncertain which part of the church they came from, but the span as reconstruct-

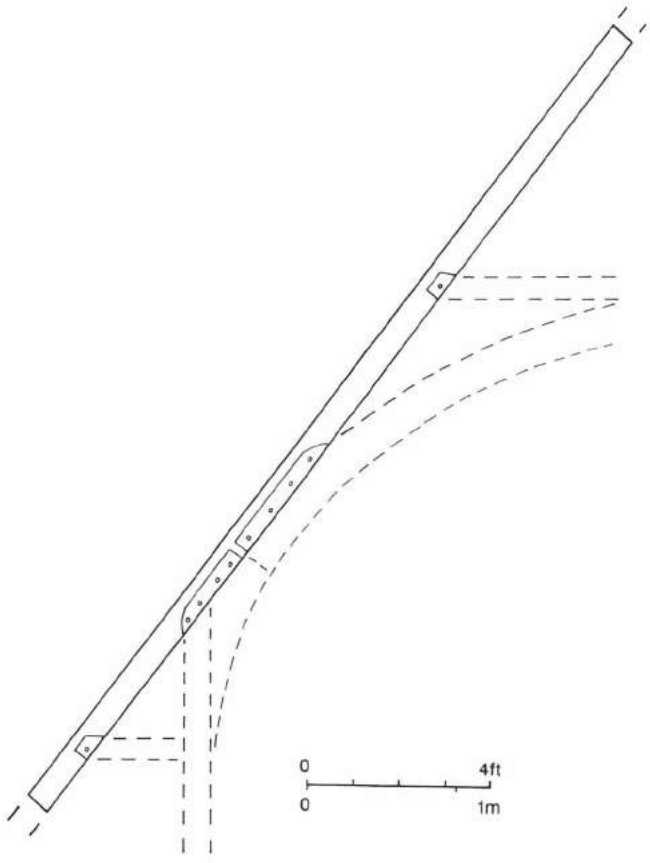


Fig. 9 South Weald, St. Peter. Drawing of a roof timber found beneath the pew platforms with a tentative reconstruction.

ed seems rather wide, suggesting that they were from the 15th-century north aisle which was wider than the older nave. An Exeter joiner's hammer was discovered beside one of these medieval timbers, presumably having been accidentally sealed under the floorboards at the time of the restoration.

Note

1. The coffin furniture was analysed by energy dispersive X-ray fluorescence.

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Essex Archaeology and History **28** (1997), 267-313

Shorter Notes

Some 'new' Palaeolithic flint artefacts from metropolitan Essex

by Jonathan Cotton

Introduction

A small collection of fifteen Palaeolithic flint artefacts from East London was recently submitted to the Museum of London by Mr Colin Henshaw of Blackheath. They had been purchased by him at a sale of antiquities in Lewes, Sussex on 10 May 1995[1]. Further enquiry by Mr Henshaw revealed that they had originally formed part of a larger collection of objects, including Egyptian and Roman antiquities, discovered in the attic of Birkenhead School, Wirral in 1994. The collection had lain undisturbed for over 60 years, and may formerly have belonged to Professor M.P. Charlesworth, an Old Birkonian[2]; it was auctioned by Outhwaite & Litherland of Liverpool in November 1994.

The collection

The collection is of interest as it includes one artefact purporting to come from the 'Palaeolithic floor' identified across north-east London by Worthington Smith (1884; 1894, 190-214), together with several other artefacts from hitherto unrecorded findspots in the Plaistow and Upton Park localities (see Wymer 1985, 287-96 for the most recently published list). All but one of the fifteen pieces are provenanced, and seven are dated as having been found between February 1893 and 1895. Five carry further details regarding findspots and depths. Nine clearly formed part of a much larger collection, and are numbered variously between '90' and '2278'.

The provenances are marked in pencil and/or black and white ink, and are in several different hands. Where present the pencil inscriptions appear to be the earliest, as several are overlain by later ink markings; on one piece (no. 10), the pencilled note provides additional stratigraphic information. Comparison of the handwriting with that on one or two other pieces held by the Newham Museum Service (formerly Passmore Edwards Museum) suggests that at least one of our pieces (no. 9) may have been in the possession of Dr Frank Corner, a local antiquarian and collector[3].

Catalogue

1. Pointed hand-axe roughout, 142mm in length marked in pencil and in white ink capitals 'Leytonstone, by New Line, Dec 93, Floor' (numbered in black ink '698' or '869'). Ochreous staining, worn but not heavily rolled (Fig. 1, no. 1).
2. Segmental chopping tool, 136mm in length marked on a patch of cortex in cursive black ink script (legible under UV light) 'Prothero's Nursery, Leyton, 3/11/93' (numbered in black ink '1650' or '1658'). Light ochreous staining, worn but not rolled (Fig. 1, no. 2).
3. 'Wedge' or ?chopper core, 100mm in length marked in pencil 'Low Leyton, Essex' (numbered in black ink '2069'). Olive-brown staining, rolled and abraded; orange-brown sand is trapped in a small hollow on one face.

4-7. Four flakes marked 'Leytonstone', two in cursive black ink script and two in white ink capitals, with various find dates between 1893 and 1895 (three are numbered in black ink: '90'; '1728'; and '2278'). Traces of orange sand adhere to the ventral face of one piece. Three are stained yellow-brown, one mottled cream-brown. All are rolled.

8. Sub-cordate hand axe, 110mm in length marked in white ink capitals 'Balaam St Pit, Plaistow, E'. Ochreous staining (a modern flake removal from the tip indicates that the flint was of dark grey-black colour), rolled and abraded, with some ?thermal cracking at the butt (Fig. 1, no. 3).
9. Robust point/borer on a broad flake, 130mm in length marked in cursive black ink script and white ink capitals 'Klondyke Av: Upton Pk. Essex, 10ft 94:'. Ochreous staining, rolled and abraded (Fig. 2, no. 4).
10. Sub-cordate hand axe, 107mm in length marked in white ink capitals 'Klondyke Avenue, Upton Park, 23.2.93 9ft'. An underlying pencilled note adds: 'Made Earth 1ft, Red [sand or loam?] 3ft, Ballast 5ft'. Ochreous staining, heavily rolled and abraded (Fig. 2, no. 5).
11. Side scraper, 111mm in length marked in cursive black ink script and white capitals 'Upton Park, Essex 10ft'. Dark ochreous staining, heavily rolled and abraded. An old paper label (now blank) adheres to one edge (Fig. 2, no. 6).
12. Small pointed hand axe, 78mm in length marked in cursive black ink script 'Upton Park, West Ham, E', and in white ink capitals 'Upton Park' (numbered in black ink '124'). Dark ochreous staining (a modern flake removal at the tip indicates that the flint was of mottled yellow-brown colour),

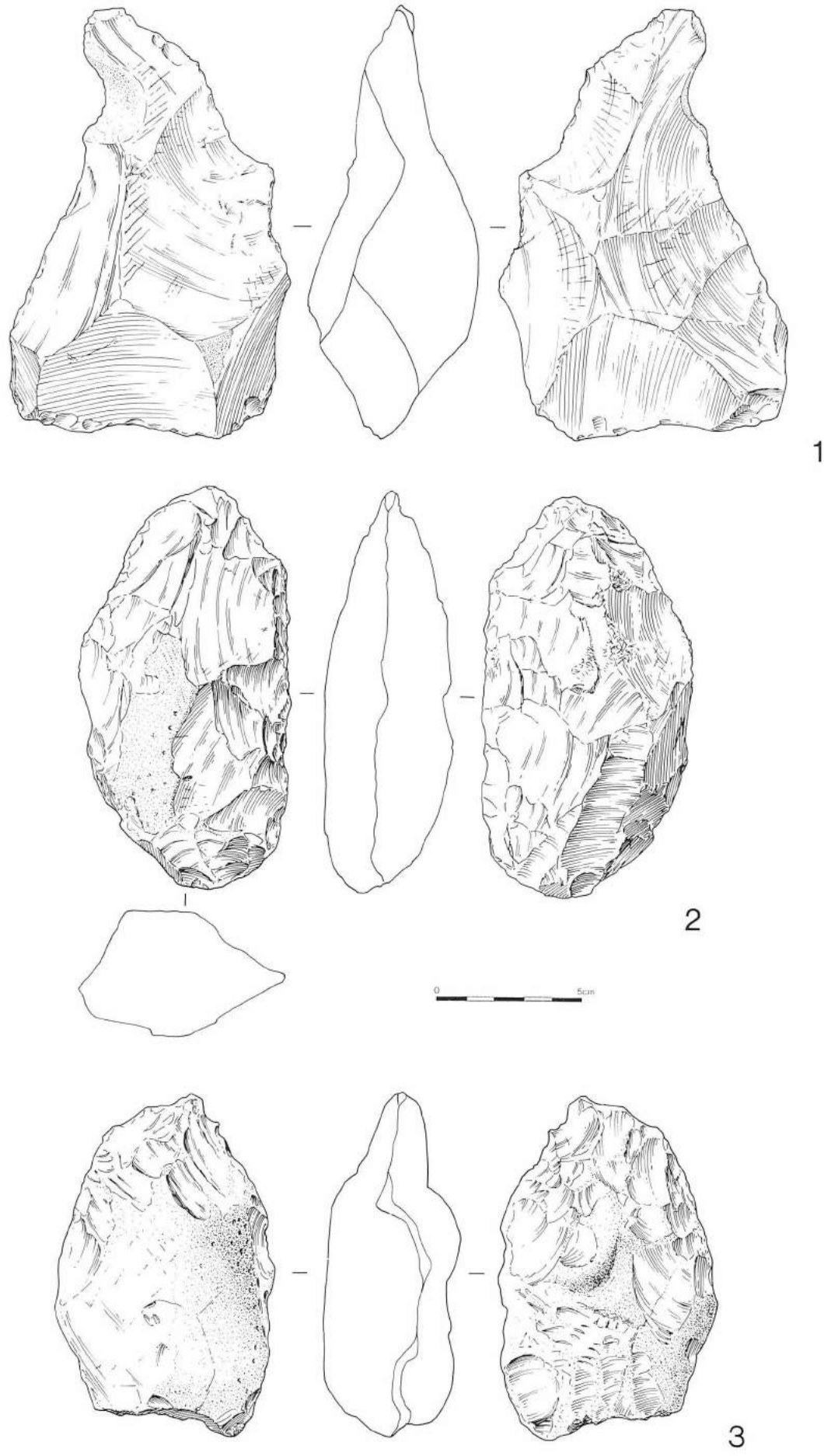


Fig. 1 Palaeolithic flint artefacts from metropolitan Essex: no. 1 From Leytonstone 'Floor'; no. 2 from 'Prothero's Nursery, Leyton'; no. 3 from 'Balaam Street Pit, Plaistow'

heavily rolled and abraded.

13. Small pointed hand axe worked on a nodule, 72mm in length marked in black ink capitals 'Upton Park, E'. Olive-brown staining, heavily rolled and abraded.
14. End scraper/ovate, 80mm in length marked in cursive black ink script 'Upton Park, Essex, 10ft' (numbered in black ink '591'). Ochreous staining, rolled and abraded (Fig. 2, no. 7).
15. Ovate hand axe, 85mm in length (numbered in black ink '709'). Ochreous staining, heavily rolled and abraded.

(Another three or four pieces thought by the purchaser to comprise natural flint nodules were not submitted for inspection.)

Discussion

The material described above can be split into two groups: those pieces from the 'Taplow Terrace Gravel' in the Leyton/Leytonstone area (nos 1-7); and those from the 'Flood Plain Terrace Gravel' further to the south-east at Plaistow and Upton Park (nos 8-14). As might be expected, the latter group are more heavily rolled and abraded.

Of the former group, nos 1 and 2, from 'Leytonstone, by New Line... Floor' and 'Prothero's (sic) Nursery, Leyton' respectively, though worn are neither heavily rolled nor abraded. The stone-struck pointed hand-axe roughout (no. 1) is of particular interest as it purports to have come from a continuation of the 'Palaeolithic floor' originally identified on the west bank of the Lea by Worthington Smith (Smith 1884; 1894, 190-214). Wymer notes that the only localities claimed by Smith for his 'floor' east of the Lea lay in the Walnut Tree House/Leyton Road areas (1985, 291; Smith 1894, 196), both of which are situated adjacent to the Tottenham and Forest Gate railway line - the latter laid out after *c.* 1875 (the 'New Line' on our piece?)[4]. Protheroe's Nursery, also known as the 'American Nursery',[5] was an extensive holding

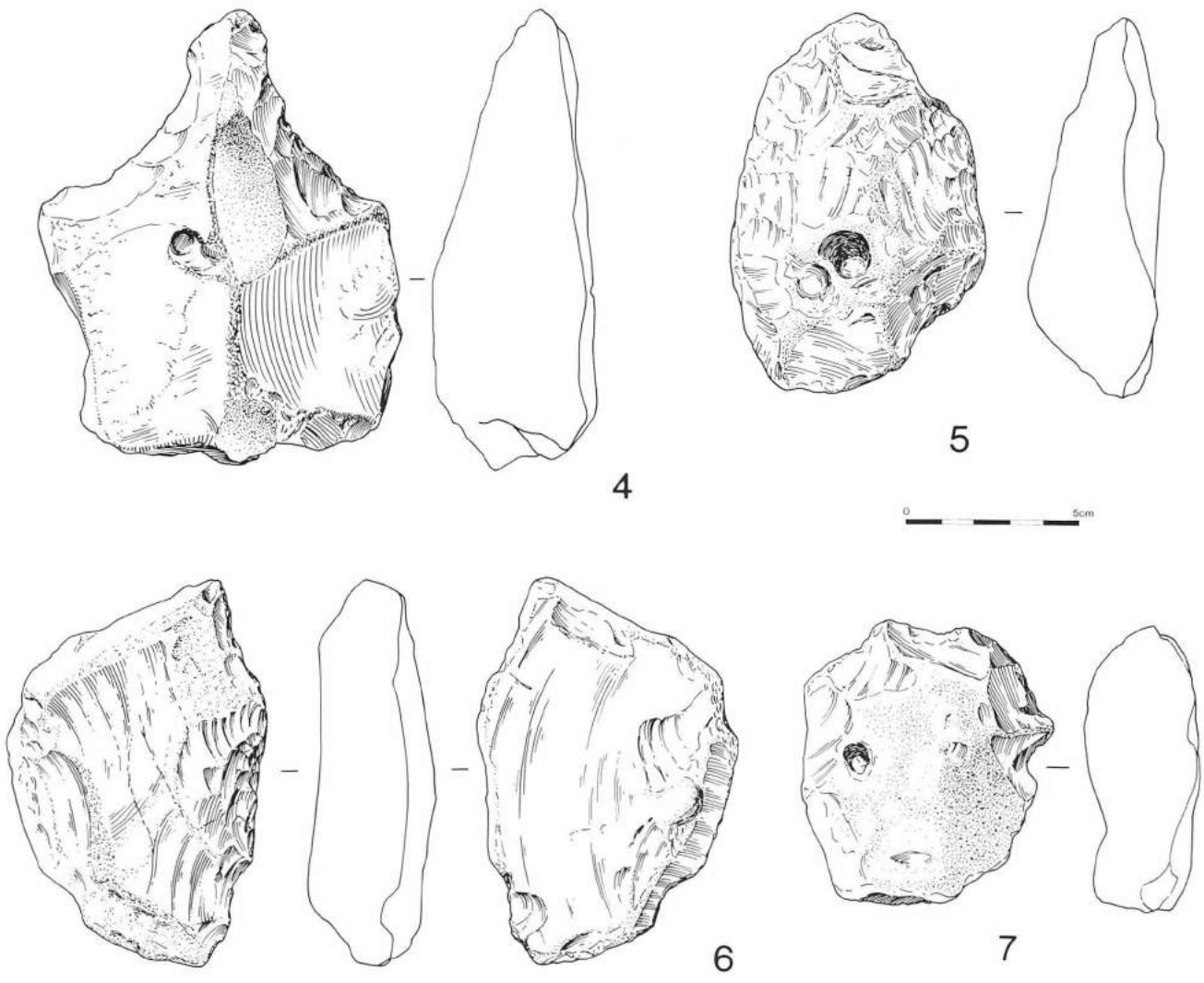


Fig. 2 Palaeolithic flint artefacts from metropolitan Essex: nos 4 and 5 from 'Klondyke Avenue (Churston Avenue), Upton Park'; Nos 6 and 7 from 'Upton Park'.

stretching between High Road, Leytonstone westward to Grove Green Road on the north side of the railway line (centred TQ 3930 8710) (Brian Mardall pers. comm.). It is marked just to the north of 'Royal Lodge' on the Ordnance Survey 25-inch maps of 1875 and 1897. The firm of Protheroe and Morris (Nurserymen) leased the site from the 1830s, and are listed as being in occupancy in various editions of Kelly's Directory; the nursery flourished until the early 1890s (*Essex* **vi**, 27). Wymer notes the recovery of at least one hand axe from 'Protheroe's Nursery', which he locates in the area west of Leytonstone High Road but south of the railway line (1985, 291).

Turning to the second group of provenances, 'Balaam St Pit, Plaistow' (no. 8) and 'Klondyke Avenue, Upton Park' (nos 9 and 10) are hitherto unrecorded (e.g. Wymer 1985, 290-6; John Wymer pers. comm.). It is possible that the former equates with 'Plaistow Park Pit' on the eastern side of Balaam Street; a single unregistered sub-cordate hand axe so marked, recovered from a depth of 15 feet in the spring of 1898, forms part of the collections of the former Passmore Edwards Museum (Pamela Greenwood pers. comm.). However, Plaistow Park (now Plaistow Recreation Ground, centred TQ 4070 8275) was apparently laid out in 1894 or shortly thereafter (*Essex* **vi**, 109). Balaam Street lies a little way to the north-west of Prince Regent Lane from where several handaxes have been recorded (Wymer 1985, 295). 'Klondyke Avenue' meanwhile was, at an early stage in its existence, re-named Churston Avenue (Dorcas Sanders pers. comm.). Churston Avenue (centred TQ 4080 8380) is not marked on the 1895 Ordnance Survey 25-inch map, but lies between Plashet Road and Harold Road, the latter running parallel to, and north of, the London Transport District Line. Wymer records two handaxes from Upton Park/Plashet a short distance to the east (1985, 295).

Acknowledgements
Thanks are due to Colin Henshaw for reporting his purchases (which he retains), and for allowing them to be published here; and to Nick Ashton (British Museum), Pamela Greenwood (Newham Museum Service), Brian Mardall (Waltham Forest Archives and Local History Library, Vestry House), Dorcas Sanders (Newham Leisure Services) and John Wymer for their help and advice.

Notes

1. Wallis & Wallis Lot 226: 'A small collection of water-worn Palaeolithic flint implements, from Leytonstone and Upton Park (Klondyke Avenue), Essex, dated (18)93 and 94, approx 20 items.'
2. Information from George de Ritler (Birkenhead School Archivist).
3. Corner was a 'peppery physician' (Sheppard 1991, 50), who lived in the Manor House, Poplar, and his loans of metalwork and other items (often later converted into donations) greatly enriched the early holdings of the London Museum. However, none of his flint artefacts seem to have made their way into the Museum, and they were dispersed when the residue of his collection was auctioned off after his death in 1948 (Wymer 1968, 293). A few Corner pieces found their way into the collection of the Passmore Edwards Museum during his lifetime, while others reached the British Museum as part of the Institute of Archaeology collection, itself originally obtained in 1953 (Nick Ashton, pers. comm.).
4. Recent work on the M11 interchange at Woodford has since substantiated Smith's claims for an eastward continuation of his 'floor' (Wymer 1985, 298).
5. Because of an early specialisation in the propagation of New World species such as the American Oak.

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A dispersed middle Bronze Age palstave hoard from Great Bromley

by P. R. Sealey

Provenance and circumstances of discovery

The farmer G. Askew discovered Palstave I in 1981 at TM 0960 2420, in the middle of a small arable field at Balls Green in the south of Great Bromley parish. When he was exploring the same field with a metal detector in November 1995, Andrew G. Norfolk found the others in the space of 24 hours about 10cm below the surface. One was found in the middle of the field, with another 50m to the north, and the third some 75-100m to the east. Part of the blade of Palstave II had become detached and was found close to Palstave IV. The findspot is level ground about 30m above O.D. on loam, with a patch of sand and gravel at the south of the field. A. G. Norfolk is himself a farmer and spoke highly of the soil when he showed the writer the findspot in March 1996. In the 19th century the land was woodland known as Bromley Thickets and it has only been under the plough (in modern times) for about a hundred years. The finds have been retained by A. G. Norfolk.

Catalogue (Fig. 3)

1. Palstave I is low-flanged and unlooped. From the stop-ridge the sides of the tool flare out to give a broad expanded blade with protruding tips; there is a shallow facet or bevel 19mm behind the cut-

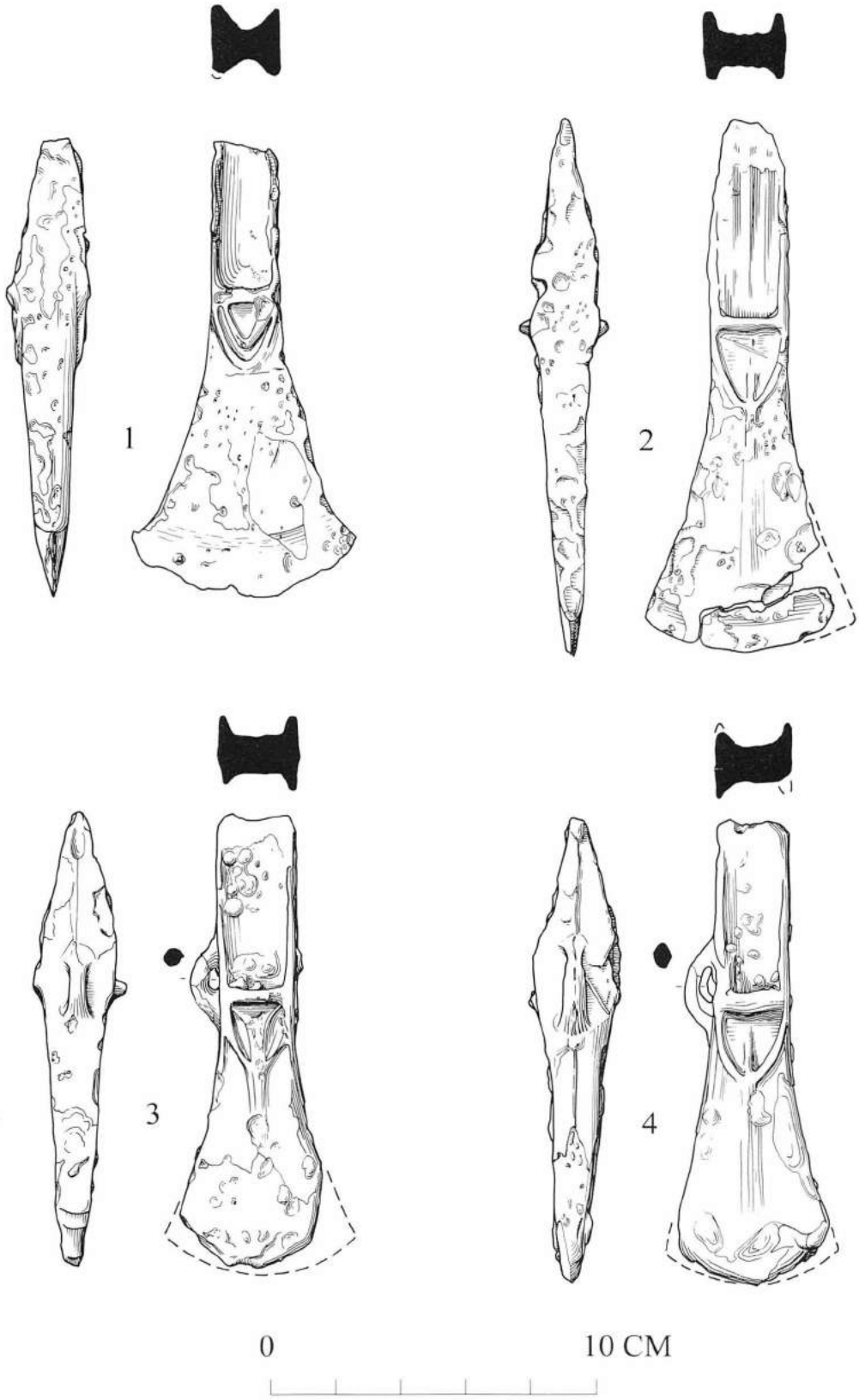


Fig. 3 Palstaves from the Great Bromley hoard.

ting edge. At the stop end there is a double shield pattern; the upper edge is formed by the stop itself and the outer rib of the shield is a continuation of the flanges. Inside the outer shield is an inner V-shaped rib. Such a shield pattern is most unusual. It is reminiscent of the shield moulding on a trident decorated palstave from the Taunton (Somerset) workhouse hoard (Smith 1959, GB.43 2(2) no.29). The septum is concave and narrow and ends in a ledge stop, as defined by Schmidt and Burgess (1981, 20).

The surface is pock-marked with pits ranging in size up to about 7 mm across. In many places they have merged to give continuous areas of disfigurement; the unillustrated face is particularly badly affected. Most of the original surface of the palstave has in fact disappeared and only about 40% remains. The butt end is missing and the section reveals two small bubble cavities in the tool from the original casting operation.

The tool weighs 386.5g. Length 141mm. Blade width 68mm. Width at stop-ridge 20mm. Height of stop-ridge 8.5mm. Flange height 25mm.

Palstave I is a primary shield pattern tool of the initial middle Bronze Age and which may therefore be assigned to the Acton Park phase of the 15th century BC (Schmidt and Burgess 1981, 117-25).

2. Palstave II is low-flanged and unlooped. The sides of the palstave flare out gently from the stop-ridge towards an expanded blade. On both faces there is a central midrib that peters out about 25mm behind the cutting edge; towards the stop-ridge, each midrib terminates in a three-pronged trident. The outer two prongs are a continuation of the flanges. There are three straight ribs running along the (flat) septum, parallel with the flanges. This is an unusual feature on palstaves; comparanda include a palstave from a late Bronze Age Ewart Park phase hoard from Nottingham (Smith 1957, GB.22 2 (1) no.11). The stop is a variant of the bar ledge type, as defined by Schmidt and Burgess (1981, 20, 115-6). It rises well above the surface of the tool; although the stop rises vertically from the septum, the other side only descends steeply (rather than vertically) towards the blade and this last feature justifies its description as a *variant* of the bar ledge stop.

   Part of the blade edge had become detached and was found not far from palstave IV. This fragment joins palstave II as indicated in the illustration. The surface is deeply pock-marked with pits ranging in size up to about 8mm across. In places they have merged to give continuous zones of corrosion; the unillustrated side of the palstave has none of the original surface left at all. The butt end and flanges have also been particularly severely affected; only about 20% of the original surface of the palstave remains. On the illustrated face there are three small adjacent corrosion blisters; part of the blade end is missing altogether. There are some patches of soil still adhering to the tool.

   The tool weighs 372.5g. Length 161mm. The blade width must originally have been some 65mm. Width at stop-ridge 24mm. Height of stop-ridge 9.5mm. Flange height 22mm.

   Palstave II is Type Wantage of the classification proposed by Schmidt and Burgess, which they assign to the *c.* 1400-1200 BC Taunton (Ornament Horizon) phase (1981, 129-31, 133-5, pl.59 nos 801-10).

3. Palstave III is low-flanged and looped. The sides of the palstave flare out gently towards the blade end from the stop-ridge. On both faces there is a central midrib extending at least half way down the extant length of the face. It terminates at the stop-ridge in a variant of the three-pronged trident motif so common on palstaves, but here the central member of the trident is not a narrow straight rib (as is usual), but a V-shaped moulding with concave sides. The outer two prongs are a continuation of the flanges. The septum is flat and ends in a *variant* of the bar ledge stop, as defined by Schmidt and Burgess (1981, 20, 115-6). It rises well above the surface of the tool; although the stop rises vertically from the septum, the other side only descends steeply (rather than vertically) towards the blade and this last feature justifies its description as a variant of the bar ledge stop. On the illustrated side of the palstave the upper edge of the stop ridge forms a curved arc joining both flanges. The loop is long and narrow, with a small aperture. The surface is deeply pock-marked with pits ranging in size up to about 5mm across. Towards the blade end in particular the pits have merged to give one continuous zone of corrosion; the actual blade edge has been completely eaten away. Only about 25% of the original surface of the tool remains. The butt ends of the flanges have also completely disappeared. On the unillustrated side of the palstave the arc that forms the upper edge of the stop ridge has been removed by corrosion. From inside the shield pattern to the butt end of the palstave there are prominent corrosion blisters. They are conspicuous on the septum faces, where oval and round conical blisters rise at least 3mm above the original surface in groups, like warts. On parts of the tool there are still thin patches of soil adhering to the surface.

   The tool weighs 361g. Length 140mm. Blade width 43.5mm. Width at stop-ridge 22.5mm. Height of stop-ridge 8mm. Flange height 28mm.

4. Palstave IV is low-flanged and looped. The sides of the palstave flare out gently from the stop-ridge towards an expanded blade. On both faces there is

a central midrib which peters out about 17 mm behind the cutting edge; towards the stop-ridge, each midrib terminates in a three-pronged trident. The outer two prongs are a continuation of the flanges. The septum is slightly concave and ends in a ledge stop. The angle of descent onto the blade face is not as steep as on Palstaves II and III and justifies the description as a ledge stop, rather than a bar ledge stop. The loop is long and low, with a small aperture. On the loop side of the palstave the casting seam is well preserved and can be seen running across the loop itself; it stands about 0.5mm proud of the surface. Its line is still evident on the corroded flange of the loop side. The 4mm of casting seam that survives on the other side of the palstave likewise stands proud of the surface. It is unusual in Essex to find middle Bronze Age metalwork with casting seams that have not been completely removed.

The surface is deeply pock-marked with pits ranging in size up to about 6mm across. At the butt end in particular the pits have merged to give extensive continuous zones of corrosion; the actual butt end and one of the flanges have been completely eaten away. The blade edge has also been destroyed. Corrosion blisters are present on the surface; one on the illustrated face is an oval some 25mm long, rising 3mm above the surface. Only about 30% of the original surface of the tool remains. There are some patches of soil still adhering to it.

The tool weighs 388.7g. Length 143.5mm. Blade width 46mm. Width at stop-ridge 23.5mm. Height of stop-ridge 9mm. Flange height 27mm.

Palstaves III and IV are severely affected by corrosion and the blades in particular have been eaten away wholesale, making it impossible to reconstruct their original outlines. Nevertheless it is possible to suggest that both are specimens of the Type Carleton palstave defined by Schmidt and Burgess, current in the *c.* 1400-1200 BC Taunton (Ornament Horizon) phase (Schmidt and Burgess 1981, 139-40, pls 60-1 nos 825-32).

Discussion

Two of the palstaves were found in the middle of the field and the other two between 50 and 100m distant, although it is not possible now to say *which* of the 1995 finds was found *where*. All four were recovered from the plough soil. The weathered condition of the 1995 finds in particular suggest they had been dislodged from their original context and had been circulating in the soil for some time. It is noteworthy that part of the tip of one of the palstaves discovered in 1995 was found, not in the immediate vicinity of its parent axe but near one of the others. It is difficult to avoid the conclusion that all four artefacts are at least part of a middle Bronze Age hoard of the Taunton phase that has been dispersed by the plough. One of the palstaves belongs to the earlier, Acton Park phase but the presence of older material in Bronze Age metalwork hoards is common and in no way undermines the likelihood of the Great Bromley find representing a hoard. Mindful of the thoroughness with which the field has been explored, it is reasonable to speculate further that these four palstaves constitute the entire hoard. The total weight of the hoard is 1508.7g

Acknowledgements

The hoard was drawn to my attention in the first instance by Adrian Rooke, the secretary of the metal-detecting club at Colchester. It was lent to Colchester Museum for recording by Andrew G. Norfolk, who also kindly showed the writer the findspot. I am grateful to them both for their wholehearted co-operation and help. Sue Holden is thanked for the illustrations. My gratitude is also extended to G. M. R. Davies, Julia S. Grant and J. J. Heath.

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A late Bronze Age hoard from Layer Marney

by P. R. Sealey

The hoard was found in November 1994 by J. S. C. Lay when he was exploring the field south of Pods Wood in Layer Marney parish with his metal detector. The findspot is just below the 50m contour at TL 9050 1735, on a patch of sand and gravel surrounded by the London Clay. All five of the objects were found together in sand some 35cm below the surface, in subsoil quite distinct from the plough soil above. Although the finder discovered an early Bronze Age flat axe of Type Aylesford in Tiptree parish some 400 m to the east in 1993, a thorough search of the hoard findspot brought to light no more Bronze Age artefacts and it is clear that the hoard has been retrieved in its entirety. The group has been retained by the finder.

Hoard Catalogue

1. Looped socketed axe (Fig. 4, no.1). Length 93.5mm; blade width 44.5mm; maximum internal diameter of the mouth 33mm; weight 190.77g. Around the subcircular mouth runs a bulbous collar moulding with an uneven upper edge; below there is a narrower horizontal moulding running

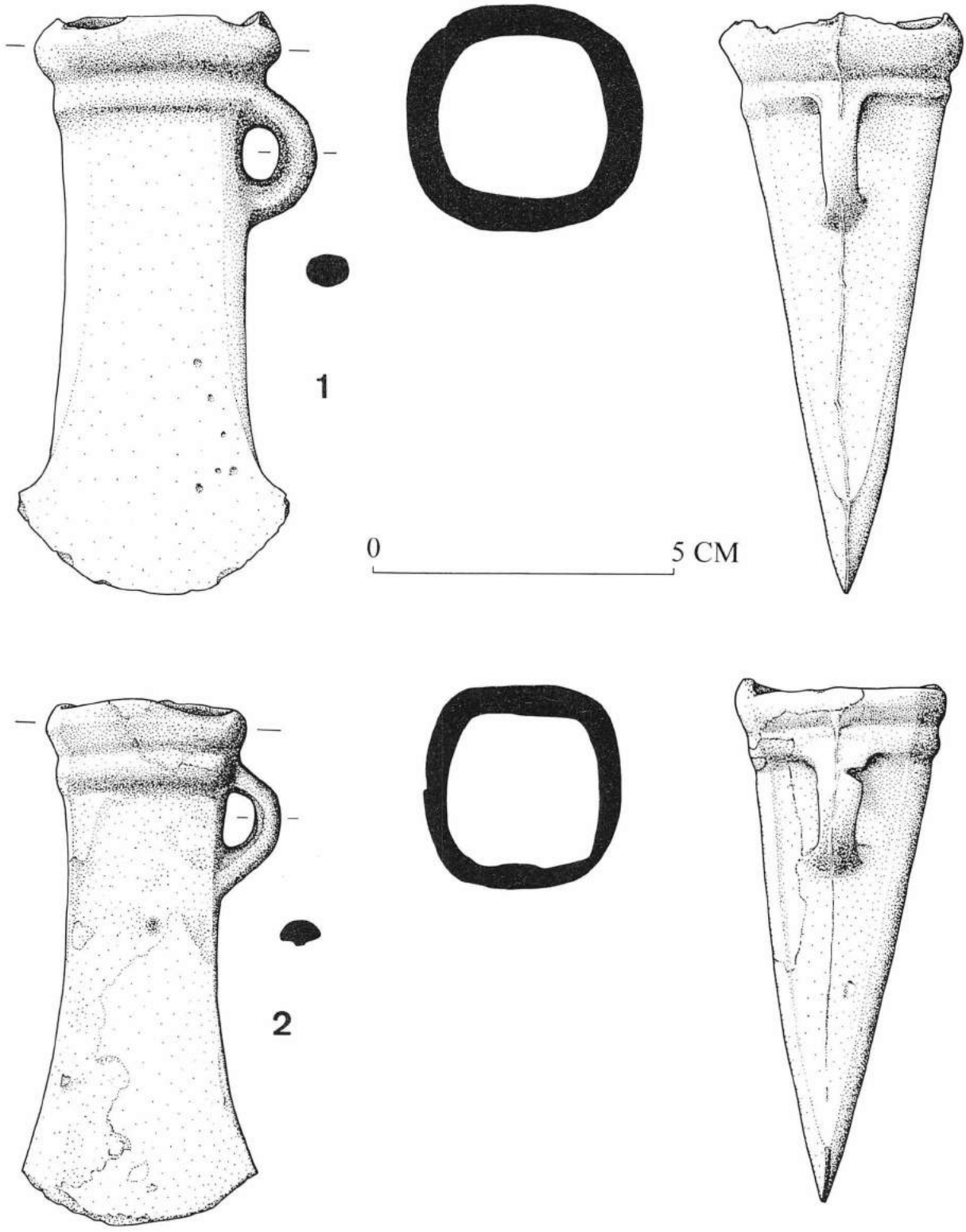


Fig. 4 The Layer Marney hoard; nos 1-2, socketed axes.

parallel, from which the loop springs. The sides of the axe are slightly concave and flare out gently towards the expanded crescent-shaped blade. In section the axe is rectangular. There are ribs inside the axe, one on the inside of each face, running from about 6 and 9mm below the collar moulding for about 44 and 35mm respectively. Internal ribs of this kind are Ehrenberg Type IV (Ehrenberg 1981, fig. 1, 216). No attempt had been made to remove the casting seams; only on the loop has the seam been worn smooth, presumably through wear with the thong that secured the tool to its

handle. There are fine striations on the faces, aligned with the long axis. Corrosion has eaten into the cutting edge and there is some pitting on the faces and sides.

2. Looped socketed axe (Fig. 4, no.2). Length 87mm; blade width 39mm; maximum internal diameter of the mouth 30mm; weight 159.18g. There is a prominent collar moulding around the subrectangular rim; its upper edge is uneven. Below there is a narrower horizontal moulding running parallel, from which the loop springs. In section the axe is rectangular. The gently concave sides widen out to an unexpanded crescent-shaped blade. On at least one side the casting seam had not been removed in antiquity; its lack of definition on the other reflects the condition of the surface. Much of the surface of the axe has lost its smooth finish and has a rougher texture caused by corrosion.

3. Looped socketed axe (Fig. 5, no.3). Length 96mm; blade width 41.5mm; maximum internal diameter of the mouth 36mm; weight 148.32g. Around the subrectangular mouth there is a prominent collar moulding with an uneven upper edge; below there is a narrower horizontal moulding running parallel, from which the loop springs. The more or less straight sides of the axe widen out towards the expanded crescent-shaped blade. In section the axe is rectangular. No attempt had been made to remove the casting seams and they are even still present running over the loop. One face and side of the axe are disfigured by circular corrosion pits, particularly along the rim mouldings where they merge together to form larger patches. This corroded face has fine striations aligned with the long axis. Towards the blade end on the other face there are two fine cracks. The blade edge itself is jagged.

4. Looped socketed axe fragment (Fig. 5, no. 5). Length 66mm; maximum internal diameter of the mouth 34mm; weight 145.13g. There is a prominent collar moulding around the subrectangular rim; its upper edge is uneven. Below there is a narrower horizontal moulding running parallel, from which the loop springs. In section the axe is rectangular. The sides are slightly concave. There are conspicuous casting seams; no attempt had been made to remove them. Only on the outer face of the loop has the seam disappeared, presumably through wear with the thong that secured the tool to its handle. The blade end of the tool had been removed just over half way along the axe. Corrosion has given the surface of one face a pitted appearance which extends over the collar moulding.
All four of the axes are the so-called south-eastern type, which is ubiquitous in south-east England and dominates hoards of the period. None of the Layer Marney tools correspond to any of the four variants identified by Schmidt and Burgess (1981, 212-7).

5. Razor (Fig. 5, no.4). Length 72.5mm; width 33mm; the tang is 43mm long and 2mm thick, and the razor plate 1mm thick. Weight 6.60g. The tang is straight and flat with a rectangular section; the sides taper towards the base. The razor blade itself is plain (undecorated) with an uneven and jagged edge that obscures the original shape; at the top are traces of the perforation or notch present on some specimens. The razor proper is bent slightly out of the same plane as the tang.
Razors of this kind are Piggott Class II, a type widely (if thinly) spread across the British Isles, with concentrations in Wessex and the lower Thames (Piggott 1946, 121, fig. 2, 126-8, figs 6-7). Typically such razors belong to the Ewart Park phase but unfinished specimens in the hoard from Ugley in the west of the county, where they are associated with a Wilburton sword fragment, allow the possibility of an earlier start in the 10th century BC (Piggott 1946, 126, fig.8 nos 44-5,138; Jockenhövel 1980, 78 nos 222-3,Taf.13; Needham 1980, 19-20; Colquhoun and Burgess 1988, 41,43, pls 25 and 144, no.148). Razors are far from common in Ewart Park hoards and it is reassuring that the association of razor and south-eastern socketed axes at Layer Marney is not in doubt.

Hoard Weight: 650 g

Discussion

The hoard components were found in a tight cluster in the ground and it is tempting to speculate if they had been wrapped in a textile or leather pouch. But before the writer had an opportunity to examine the hoard, the metalwork had been cleaned, and if any organic impressions on the finds had survived, they are now lost.

The Layer Marney hoard consists of only five items: the three complete and one incomplete socketed axe, and the razor. Its total weight is exactly 650g. They were found below the plough soil packed together and no more Bronze Age metalwork was recovered from the vicinity, showing that the hoard components had not been dislodged by the plough. It is clear that these few items comprise the entire hoard and it is a misconception to think that Ewart Park hoards are invariably larger, rather than smaller. It is of some interest to know that the cache has been recovered in its entirety because the haphazard circumstances of recovery of most Bronze Age hoards are such that one cannot always be sure the whole assemblage has been retrieved. At 650g Layer Marney is one of the smallest *complete* Essex hoards. Even smaller hoards are known from neighbouring counties, such as the Ellesborough (Buckinghamshire) hoard with its meagre 230.53g of

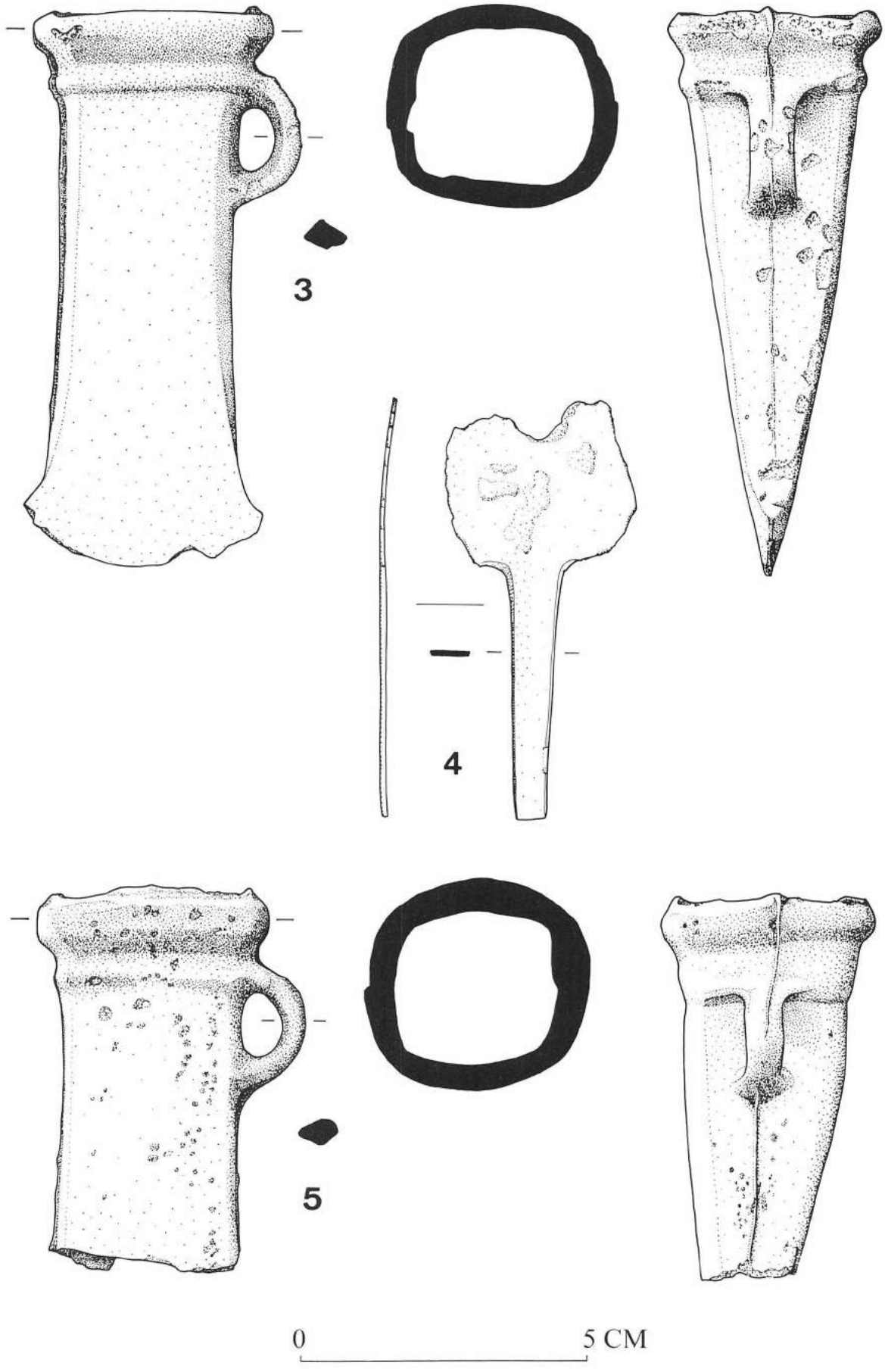


Fig. 5 The Layer Marney hoard; nos 3 and 5, socketed axes; no. 4, razor.

metal (Farley 1979). Farley felt that the small size of the Ellesborough hoard made a ritual interpretation possible, but it could equally well be argued that the hoard size simply reflects the high value of bronze in a region far from the ultimate sources of the metal.

In Essex, new Bronze Age hoards are now being reported at the rate of at least two or three a year, largely through metal detector searches of the kind that led to the discovery at Layer Marney. The south-eastern axes from Layer Marney assign the hoard securely to the late Bronze Age Ewart Park phase of the eighth and ninth centuries BC and it is to this same phase that most of the recent discoveries of hoards belong. This glut of hoards for the Ewart Park phase is repeated throughout much of south-eastern England. Most of these hoards contain incomplete scrap items destined for recycling and evidently had a connection with metalworking. Within these scrap hoards there is a category of hoard that has still more immediate links with metalworking in the form of hammers (used for scrapping metalwork), copper ingots, bronze moulds and splashes of solidified metal from casting operations. It is for these caches that the term founder's hoard should be reserved.

Although the Layer Marney hoard includes an incomplete (and therefore scrap) socketed axe, it does not readily fit into either the scrap or founder's hoards already described. Hoards such as these, where complete socketed axes form the major or only component, should be called axe hoards (Needham 1990, 130, 138). The most striking example from Essex is the Dovercourt hoard of fifteen, only two of which are damaged or scrap tools; the rest would have been usable in antiquity (Anonymous 1912, 8, pl.1; Butcher 1923, 261). It is conceivable that socketed axes could have served as ingots or units of currency for gift exchange transactions; this might explain why hoards that consist exclusively of socketed axes are known where the number present is a multiple of five (Sealey 1988, 13). The range of artefact types present in the Ewart Park scrap and industrial hoards is varied, but socketed axes are often the most numerous single artefact type present, outnumbering other tools that one might have thought to have been at least as widespread in prehistory, such as sickles. In many hoards complete or incomplete socketed axes actually outnumber all other artefacts. Even if axes did have a currency-like role, it is difficult to see how this alone can account for their dominant position in Ewart Park hoards (*pace* Bradley 1990, 118-20).

But although the problems posed by the Ewart Park hoard phenomenon remain formidable, one must hope that the publication of small complete hoards such as Layer Marney will eventually help in the elucidation of this conundrum of the hoard record.

Acknowledgements
The publication of this hoard would not have been possible were it not for the generous welcome the writer receives at the Colchester Metal Detector Club. I am most grateful to J. S. C. Lay for notifying me of the discovery of the hoard and for loaning me the finds and their documentation for study. The efforts of Adrian Rooke to build up a constructive understanding between local metal detectors and Colchester Museum must also be put on record. My thanks are also extended to Dr O. R. Bedwin, P. J. Berridge, N. R. Brown, P. J. Crummy, G. M. R. Davies and Julia S. Grant. The illustrations are the work of Sue Holden.

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Two Bronze Hammers from Essex

Nick Merriman and Barbara Wood

Introduction

Socketed hammers of bronze are a rare find, indicative of the Late Bronze Age in south- eastern Britain. The opportunity is taken here to publish two such ham-

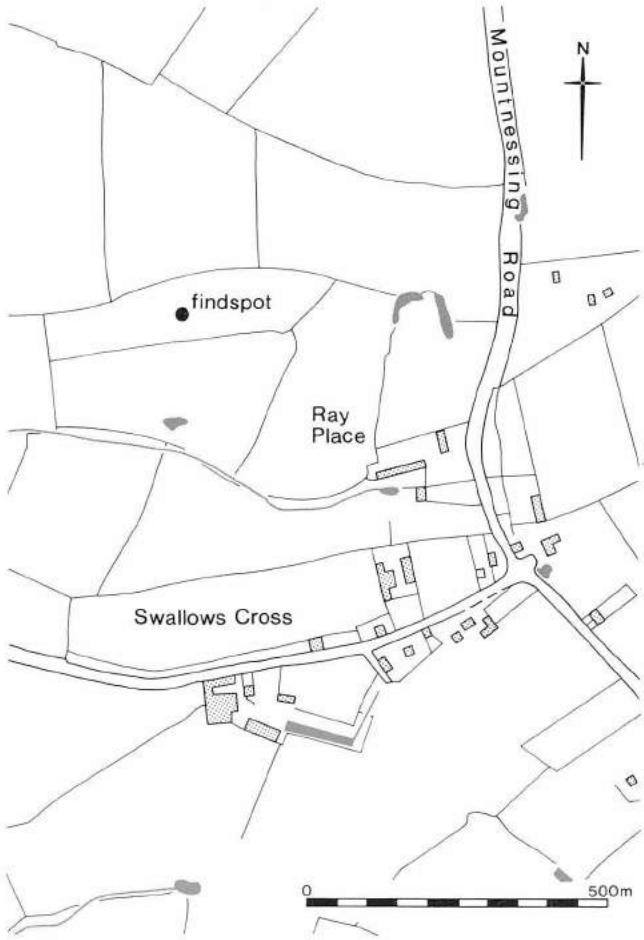


Fig. 6 Rayplace Farm, Swallows Cross. © Crown copyright 87584M.

mers, found most unusually by the same individual, Mr John Hedges, and both from Essex.

The hammers

The first find was made early in 1988 and reported to the Museum of London in June of that year. It was found using a metal detector at Rayplace Farm near Swallows Cross (TQ 611 989; Fig. 6). The site is situated in an area of Boulder Clay, on a southern slope overlooking the River Wid. The soil is a chalky till of Ragdale Associations and thus clayey and seasonally waterlogged (Soil Survey of England and Wales, 1983). Subsequent searching by Mr Hedges also revealed the blade of a socketed axe which may originally have been associated. The hammer (Fig. 7, no.1) is of slender rectangular form, flaring slightly towards the working surface, which is convex and exhibits little evidence of use. The surface has several large patches of corrosion. At present the hammer is 81mm long, 23mm wide and 19mm thick (all maximum dimensions) and weighs 175 gm.

The second example was found in September 1993 in plough soil at a depth of approximately 155mm at Fithlers Hall Farm, Highwood, near Blackmore in Essex. Again found on Boulder Clay, the soil here is a permeable calcareous pelosol of Hanslope Associations (Soil Survey of England and Wales, 1983). Unfortunately only a four figure grid reference is available (TQ 64 04). It was brought into the Museum of London for identification in January 1994. This hammer (Fig. 7, no.2) is heavily corroded and the original form of the surface is difficult to discern clearly. However, the shape is markedly different from the first example described. It is only 65mm in length although similar in width at 24mm. Weight is 113.6 gm. The body flares gently from the very corroded remains of a collar, to a slightly convex working surface at the base. In section the hammer is circular, the internal shape of the socket being sub-rectangular.

Discussion

A search in 1988 produced just 46 examples of Bronze Age hammers from Britain, four of which were from Essex (three from Grays Thurrock, now located in Colchester Museum, Acc. nos. 2362.11 and one from the Hatfield Broad Oak hoard also in Colchester Museum, Acc. no. 151.94). Since then a further six have been found, two of which are those described

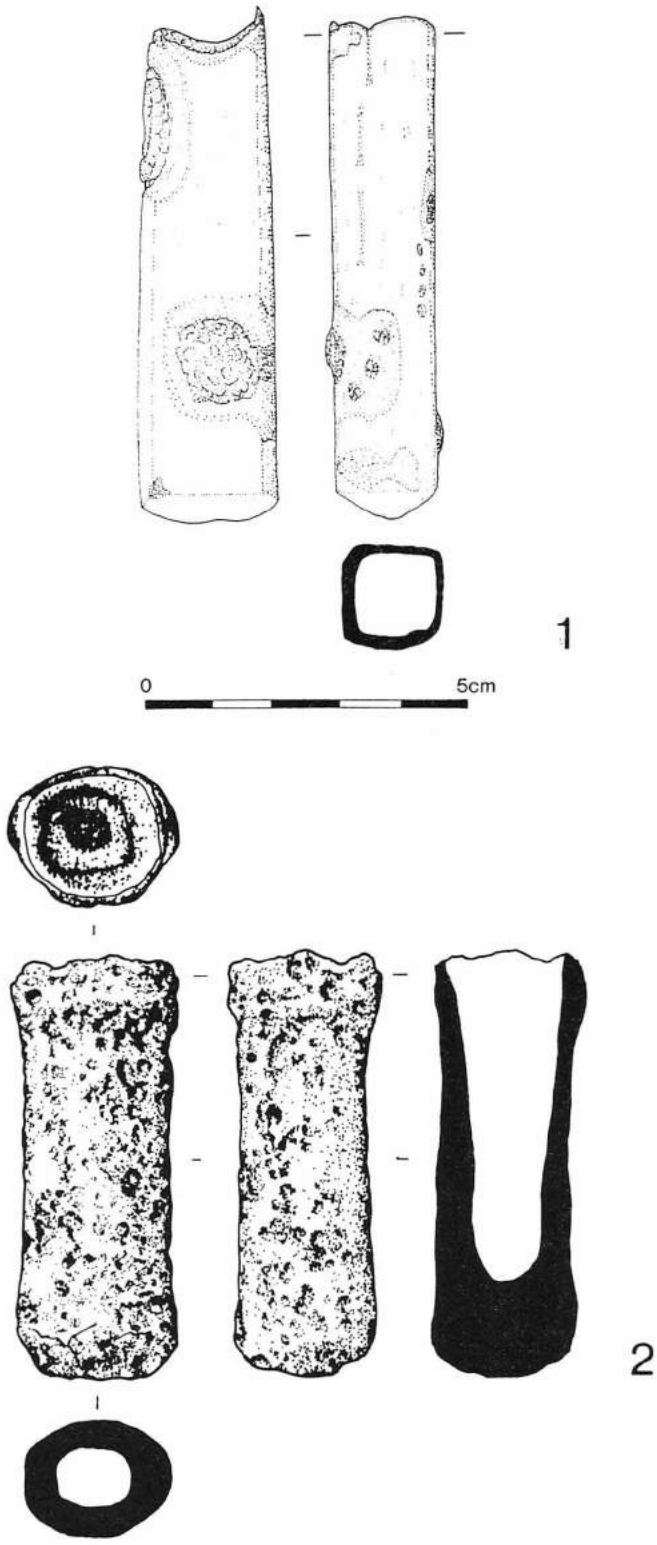


Fig. 7 Two socketed hammers from Essex.

here. In the absence of a British synthesis, the standard typology used is that of Ohlaver (1939), who isolates six different types. The Swallows Cross example would fall into his Type 1, which has simple square or rectangular surfaces and a gently convex working surface. The second hammer could fit into his Type 6, typified by a circular base and section, and a body tapering slightly in towards the collar. Even with the effects of the corrosion it seems unlikely that this hammer ever exhibited the angular appearance of the other Ohlaver groups or the completely flat base shown in the Type 3 examples. In Britain, a very few bronze hammers are

known from the Middle Bronze Age (Rowlands 1976, 45), but plain socketed hammers first appear during the Penard phase (Burgess 1968, 34, n5), becoming more numerous during the later phase of the Later Bronze Age (Jockenhövel 1982, 66).

The closest parallels for the Swallows Cross find all seem to date to the Ewart Park phase, which apart from the Kilnhurst hoard in Yorkshire (Inv Arch GB 6,41) containing two slender rectangular hammers, all come from Kent and Essex. Of the five other Essex socketed hammers, the three from the Grays Thurrock area are either too fragmentary or are shorter, broader and of circular cross section (National Bronze Implements Index), and the one from Hatfield Broad Oak has three rib mouldings on the collar and is squatter (Davies 1979). The closest parallel is provided by an unpublished hammer from Fleming Avenue, Leigh-on-Sea in the collection of the Southend Central Museum (Acc. no. 276/55). It was found with a large bronze founder's hoard dated by O'Connor to his LBA 3 (O'Connor 1980:381-2), and is of similar quadrangular section with a simple (damaged) collar, although it tapers slightly towards the working surface. In Kent, the Isle of Harty hoard (Inv Arch GB 18) contains two socketed hammers, one of which provides a very close parallel, including a slight flaring towards the working surface. Other close parallels are found in the hammer from the Minster hoard (British Museum 93.4.26 137) and in the one from the Minnis Bay hoard (Worsfold 1943), which also has a simple collar and flares outwards. All of these Kent hammers are also dated to Burgess's Ewart Park phase, or O'Connor's LBA3, placing them some time in the ninth to eighth centuries bc.

Similarly to the Swallows Cross hammer, the Highwood example may be dated to the Late Bronze Age, Ewart Park phase, but parallels are few. The example from the hoard found at Hatfield Broad Oak, Essex is similar in the shape, size and section of the mouth although the length is somewhat shorter and the body more angular. The Minnis Bay hammer has a similarly simple shape, particularly around the collar and slight flaring of the body but the square body section and base would place it within Ohlhaver's type 1. The examples from the Isle of Harty are again of a different type. Of the three hammers from Grays, Thurrock, the largest example (Colchester Museum Acc. no. 2362.11) is most similar, although slightly larger and heavier. The mouth is circular as is the striking surface, although the internal ribs visible here are not evident on the Highwood hammer.

The closest parallels appear to be an example from Langdon Bay in Kent (British Museum p1984-1,12) and one from the River Thames at Richmond, Barn Elms (British Museum. W.G. 1756). Both are again rather more angular in profile and the example from Barn Elms retains casting flashes. However the surface of the example described here is corroded to such an extent that absolute certainty of identification of the original shape is difficult.

A further example which may be similar and which was recently reported to the National Bronze Implements Index is a socketed hammer included within a bronze hoard comprising five pieces, found by Wessex Archaeology while undertaking a watching brief and metal detector survey for the Trust for Thanet Archaeology at Ebbsfleet, Minster in Kent (TR 3322 6304) in June 1992. The hammer has a rounded cross section and flat sides. The total length is 58mm, maximum width is very similar at 26mm and weight 133gm. The mouth is expanded with indistinct moulding, the striking face rounded.

Conclusion

Both the Swallows Cross and Highwood hammers fit into the general pattern of increased evidence for metalworking in the Late Bronze Age in the Essex – Thames Estuary area, which is dominated by objects of Ewart Park type, and into which tradition these items fall. Socketed hammers are examples of a tool type which became more widespread especially in south-east England in the centuries either side of 800BC, a phenomenon seen also in Britain's continental neighbours, and almost certainly related to changes in bronzeworking techniques. Jockhenhövel (1982) has pointed out that the earliest socketed hammers appear at about the same time as sheet metalworking becomes widespread in LBA1 (Burgess's Penard phase), and their apparent increase by LBA3 is probably related to an increase in the use of this technique. Evidence at Springfield Lyons and Mucking North Rings in the form of clay casting moulds attests to metal production in the area, with which the increasing deposition of hoards during the Late Bronze Age may also be connected.

Acknowledgements

We would like to thank Mr John Hedges for reporting the finds and allowing them to be published. Stuart Needham kindly dug out comparative material from the National Bronze Implements Index and both he and Jonathan Cotton provided advice and comment. Christine Jones prepared the illustration of the Swallows Cross hammer and Barbara Wood produced the drawing of the Highwood example. Thanks also to Julie Carr for Figure 6 and to Nina Crummy for locating maps.

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Two Roman ceramic spouted vessels from Essex

by T.S. Martin

Recent work by Phil McMichael of Essex County Council Field Archaeology Group on 'unprovenanced collections' held by Saffron Walden Museum has brought to light two spouted pottery vessels. A detailed search of the Museum's records has provided information on where they were found and by whom and when they were donated. Both vessels are previously unpublished.

Descriptions

This relatively rare class of vessel appears in a wide variety of shapes, sizes (although all are comparatively small compared with flagons, for example) and fabrics including samian and colour-coats. Common features comprise a flat base, a bulbous or strongly carinated profile, and a narrow-bore spout, also described variously as a 'nipple' or 'nozzle'. Considerable variation occurs at the rim which can be either wide- or narrow-mouthed. Vessels may have a tall narrow neck or one that is short and constricted. Neckless vessels are also known as are examples both with one or two, or without handles.

The first (Fig. 8.1), from Great Chesterford (Saffron Walden Museum Accession No. 319.35), is a small, neckless, fine grey ware, wheel-thrown vessel with burnished exterior surfaces. It was given to Saffron Walden Museum in 1835 by Mrs Owen Edwards of the Crown Inn, Great Chesterford. It seems to have formed part of a burial group which comprised seven vessels, one of which contained bone, and a 'bronze trimmer'. On account of its association with the 'bronze trimmer' it was thought to be a lamp (information from Saffron Walden Museum Register supplied by P. McMichael). The find was probably made in the vicinity of the Crown Inn.

The second (Fig. 8.2), from Ugley Green (Saffron Walden Museum Accession No.1935.4) in a coarse sandy oxidised fabric, with traces of a white slip or wash on the exterior. This vessel is much more crudely finished compared with the Great Chesterford example and unlike the latter has a tall neck and flared rim. It also has a single handle. The vessel was found in 1920 by Eustace Russell Todd in the grounds of Oak Cottage (TL 523 269) and given to the Museum in 1935 by its finder. It is recorded as being a flagon or lamp-filler lamp (information from Saffron Walden Museum Register supplied by P. McMichael).

Function

A variety of functions have been proposed for this class of vessel, including feeding bottles, invalid cups and lamp fillers. The finding of several vessels in what has been described as child burials, particularly at Colchester (May 1930, 250; Crummy 1993, 273), has led to them being identified as feeding bottles or *tettinae*. This is the most favoured use for spouted beakers (cf. Webster 1981). However, the presence of the form in glass at Colchester (P. Sealey, pers. comm.) suggests that this is unlikely as the spout would have been too



Fig. 8 Two spouted Roman pottery vessels from Saffron Walden Museum

fragile to place into a baby's mouth even under the supervision of a vigilant nanny or mother!

Medical historians have long regarded them as invalid (or infant) feeders (eg Fildes 1986), with the very narrow spout acting as a 'drip-feed'. This may be supported by the presence of several examples found in the graves of an adult as at Colchester (Crummy 1993, 271-2) and in that of an adult or adolescent at Welwyn, Hertfordshire (Rook 1973, 19). However, the same problems outlined above regarding use as feeding bottles also apply here.

A function as lamp fillers has also been proposed (eg Greene 1979, 95), although this has often been discounted on the grounds that the very narrow spout would have inhibited the flow of liquid through a combination of surface tension and viscosity (cf. Dannell 1987, 142). An experiment by the author using the example from Great Chesterford has shown this to be untrue. Far from preventing regular flow, the narrow spout actually regulates it, preventing excess oil flow. Indeed, this is perhaps a more likely function in view of the fact that even in the so called 'child's burial' at Colchester, a *terra cotta* lamp was also placed in the grave (May 1930, 252). However, this does not seem to be a particularly common association, which may point to a culinary function. Similar glass vessels in use today are used for the dispensing of oil or vinegar at the table.

Distribution in Essex

This class of vessel is not a particularly common find in Essex. At least 12 have been recovered from burials in Colchester, the number listed by Hull in his inventory of graves from Roman Colchester (Crummy 1993, 273). Although even here they are a comparatively rare item when placed in the perspective of there being over 1,400 graves catalogued at Colchester, and over 2000 objects excluding coffin nails and human bones. Vessels recovered from Colchester's cemeteries are found in a wide variety of fabrics, including samian (Webster 1981), Central Gaulish glazed ware (Greene 1979, 95/fig. 42.17) and coarse orange and buff wares (cf. May 1930, 273.196 and 268.97). There is also strong evidence to suggest production at Colchester. A white/buff ware example was recorded from Kiln 26 (Hull 1963, 160). Hull also noted that a colour-coated spouted vessel from the Abbey Field cemetery was in a typical Colchester fabric. This and the presence of small strap-like handles from what he considered to be very small vessels found during the 1959 excavations were thought to be from *tettinae* (Hull 1963, 107). Other Essex examples are known from Dagenham (P. Greenwood, *pers comm*) and Old House, Church Langley, Harlow (Martin *in prep*).

Acknowledgements

Thanks are due to Phil McMichael for drawing my attention to these vessels and supplying information on their provenance, and also for reading and commenting on an earlier draft, to Dr Pamela Greenwood of Newham Museum Service for information on the vessel from Dagenham, Dr Paul Sealey of Colchester and Essex Museum for drawing my attention to glass examples in their collections and to Colin Wallace for his comments. I am indebted to Lynn Morrisson of Saffron Walden Museum for the loan of the vessels for study.

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Medieval remains at The Gardens, Pleshey

by Steve Godbold

A watching brief in the centre of the medieval village of Pleshey uncovered a row of stakeholes/postholes marking the line of a 12th/13th-century boundary fence or building, two large late medieval pits (or possibly a single ditch), and an unusual medieval 'chimney' brick.

Introduction

In September 1989 a watching brief was carried out in the grounds of 'The Gardens', The Street, Pleshey, by the Essex County Council's Archaeology Section in advance of the construction of a new conservatory.

Pleshey village lies 9 km north-west of Chelmsford on the dissected boulder clay plateau of north and mid Essex (Fig. 9. A). It occupies a position on the north-east facing slope of an area of high ground, and inclines from *c.*75m OD on the south-west side of the village, to *c.*59m OD on the north-east side near the Walthambury Brook, a stream flowing south-eastwards just outside the village limits.

Currently, Pleshey presents a small agricultural



Fig. 9 'The Gardens', Pleshey: location map and site plan. © Crown copyright 87584M.

and commuter community almost entirely confined within its famous earthworks, which comprise a large motte and bailey castle and a medieval town enclosure (Fig. 9. B). Taken together, castle and enclosure are among the most outstanding survivors of their type in the country. The castle and most of the land in the village is designated a Conservation Area and is protected under the Ancient Monuments and Archaeological Areas Act (1979).

The castle motte along with its large semi-circular southern bailey dominates the south-east side of the village. The defensive town enclosure sweeps widely around the north-west side of the castle enclosing an area of *c.*14 ha. The main street pattern of the village consists of a north-east to south-west thoroughfare, called The Street, bisecting the village and defences and running just north of the castle; a Back Lane which curves around to the north-west of this, possibly reflecting the line of an earlier northern castle bailey; and Vicarage Road (known as New Street in the 13th century) leading to the north gate. Documentary evidence indicates that the market was held on the land enclosed by Back Lane and that the street plan has changed little since 1274 (Ryan 1988).

The castle at Pleshey is first mentioned in the mid 12th century belonging to Geoffrey de Mandeville II. Later in the century William de Mandeville refortified the castle and it was at this time that the southern bailey was added and probably also the town enclosure (Eddy and Petchey 1983). In 1227/28 it passed into the ownership of the de Bohun family and in 1419 it became part of the estates of the Duchy of Lancaster. By the mid 16th century it was reported to be in ruins, and today only earthworks remain apart from a late medieval brick bridge.

Previous archaeological work has concentrated mainly on the castle earthwork (Rahtz 1960; Williams 1977; Bassett in Essex Sites and Monuments Record). In the village several useful watching briefs and trial excavations have been carried out in advance of extensions to existing properties. In 1987 excavations on the site of the village hall located the south side of a large ditch partly underlying Back Lane, possibly the northern bailey ditch (Priddy 1988).

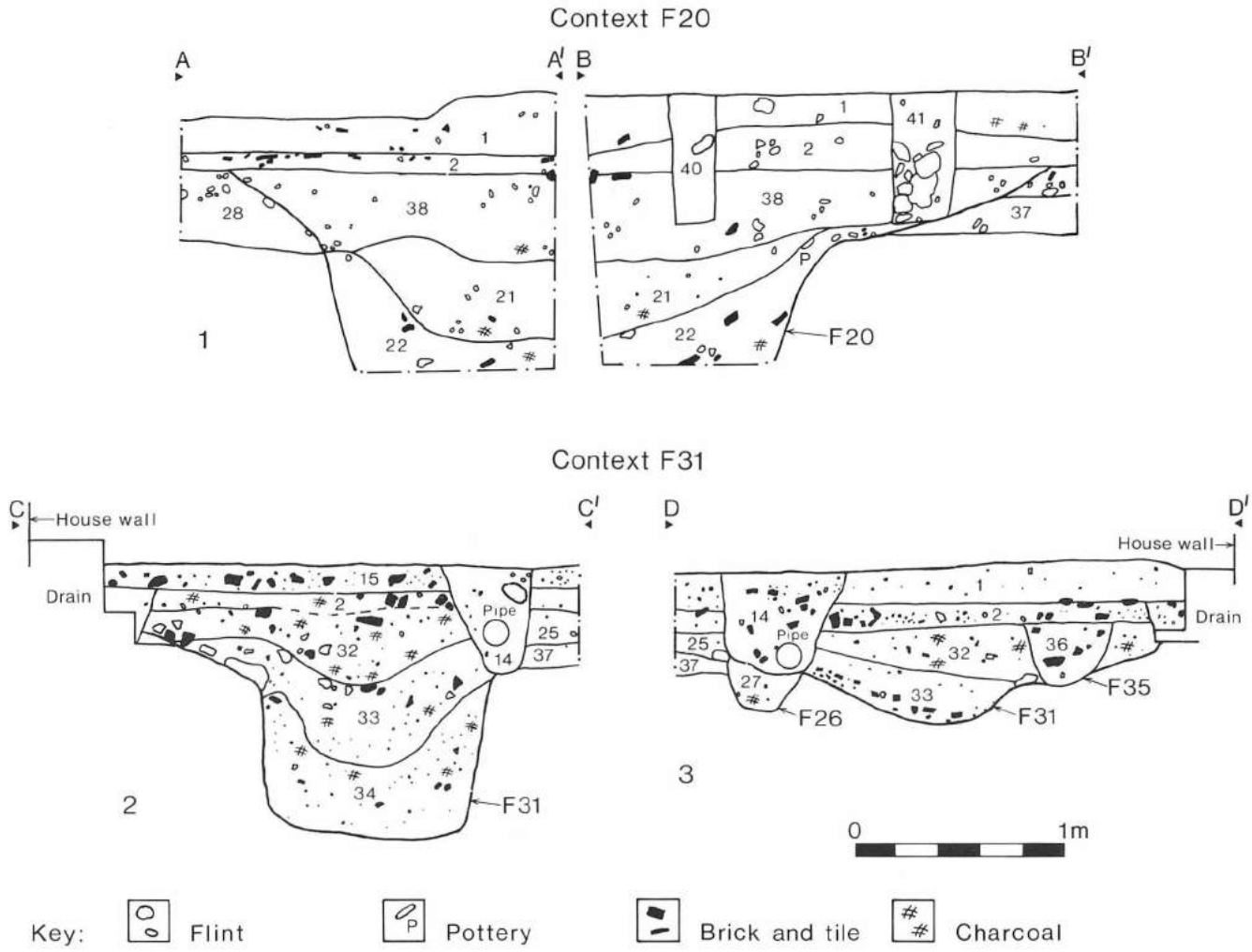


Fig. 10 'The Gardens', Pleshey: archaeological sections.

Excavation

Archaeological recording was confined to the excavation of the foundation trenches for the new conservatory building. The trenches were 0.30m wide and were located at the north-west corner of the existing building (Fig. 9. C). They consisted of one trench 7.5m long (trench A), running along the south-west side boundary of the property linked at either end to the existing building by further trenches, one 4.8m long (trench B), at the north-west and the other 2.3m long (trench C), to the south-east.

All excavation was by hand, and commenced with the removal of the topsoil and the recording of a few post-medieval features, mainly modern postholes.

Layers 1 and 2

Layer 1 was a humic, very silty, dark grey clay representing the modern topsoil, which lay generally across the area varying in depth from 0.15m to 0.30m. Layer 2, below 1, was similar to the latter, but slightly lighter in colour and was *c.*0.20m deep. Both layers produced quantities of pottery dated from the 15th to the 19th/20th century, but in addition sherds of unstratified early medieval and medieval wares were recovered from layer 2, along with a small bone spoon bowl (Fig. 12), reflecting 15th/16th-century metal spoons.

F6, 8, 10, 18 and 23

Near the north-west end of trench A a series of stakeholes/postholes were revealed forming a linear alignment along the length of the trench, F6, 8, 10, 18 and 23 (Fig. 9. C), all filled with a grey-brown, slightly silty clay. Features F8 and F10 were both small circular cuts about 0.15m in depth. They measured 0.12m and 0.17m in diameter respectively. Both features produced sherds of early medieval shell and sand-tempered ware and F10 also contained a sherd of medieval coarse ware, suggesting a date range of 12th to early 13th centuries.

Of the other features in the alignment, F6 was smaller with a diameter of 0.08m and a depth of 0.09m. Features 18 and 23 were both larger with a depth of 0.35m and were slightly oval in shape. Feature 18 measured 0.12m by 0.28m, whilst F23 measured 0.22m by 0.26m. These features contained no finds.

F20

A large cut feature, context F20, lay at the junction of trenches A and C (Fig. 9. C). This feature extended into trench A for 2.2m from the limit of excavation. Likewise the east edge of the cut lay 1.5m from the west limit of excavation in trench C. This feature was quite deep and could not be fully excavated owing to the physical limits imposed by the maximum trench width of 0.3m. However, it was excavated to a depth of 1.25m measured from the modern land surface. This cut had a gradual slope for the first 0.3m of its height. Thereafter it became almost vertical (Fig. 10. 1). Three fills were identified: the upper 0.4m of the cut was filled by a yellowish-grey, slightly silty clay 38, containing only a few small fragments of tile. Below this was a layer (21) of similar colour and texture, also 0.4m thick. This fill yielded a fair amount of late medieval pottery including 15 sherds of sandy orange ware and lesser amounts of Mill Green type ware and post-medieval red earthenware. Beneath 21 was a very silty dark grey fill 22, containing flecks of charcoal. This fill was not completely excavated owing to the previously discussed problem of trench width. The upper surface of the fill spanned the full width of the cut in concave fashion where the sides of the feature became vertical and was excavated to a maximum depth of 0.6m (Fig. 10. 1). It contained a considerable amount of pottery of fabrics similar to those found in 21, but including 60 sherds of sandy orange ware. Both these fills contained fragments of medieval brick and tile, including a fragment of an unusual type of 'chimney' brick (Fig. 13) from fill 21. Fragments of animal bone, including cattle, sheep, pig and red deer were also recovered from fills 21 and 22, including an antler tip sawn off at the base, from 22. Residual potsherds of early medieval and medieval date were also found in these fills.

F31

At the east end of trench B lay another large cut feature, F31 (Fig. 9. C). Only the north-west edge of this feature lay within the trench, where it curved from north to south-east across the width of the trench. This side of F31 had been truncated by a cut for a modern glazed water pipe, F14. The rest of the feature extended beyond the limits of excavation or was destroyed by the existing house foundations to the east. The upper part of the cut for F31 sloped gradually for the first 0.5m of its height and then descended vertically for 0.7m to a wide almost flat bottom (Fig. 10. 2). Although both sides of the feature had been damaged its original width could be estimated at 2.2m. At its base it was 1m wide. Three fills were recorded. The upper fill 32, was a grey-brown, very silty clay, which contained several sherds of 15th-century pottery along with a sherd of black glazed ware dated to the 17th/18th centuries and one of modern stoneware. It was cut by a later posthole/pit F35 (see below). The fill below 32, context 33, was a 0.4m thick layer of yellowish-grey, very silty clay, laying in a concave fashion across the width of the cut. This fill yielded a few sherds of 15th-century pottery plus fragments of tile and animal bone including one piece of cattle pelvis with deep 'chop' marks. Fill 34 was a thick layer of dark grey, very silty clay, containing a moderate amount of charcoal, which lay across the base of F31 to a maximum depth of 0.75m. It contained 17 sherds of late medieval earthenware, mainly sandy orange ware, including fragments from cisterns. Other finds recovered from this fill included a fragment of a medieval flat lava upper quernstone with part of the edge and central hole present; many animal bone fragments, mainly cat-

tle with some red deer antler; and a quantity of tile fragments.

The cut for this feature rose steeply across the width of the trench from the south-east to the north-west (Fig. 10. 2 and 3) indicating two possibilities; (a) that the limit of this feature lay not far beyond the north-west edge of the trench, and (b) that although fill 34 was the lowest identified fill of cut F31 the possibility remains that other fills lie undetected below 34 further south-east beyond the limit of excavation.

F26

Immediately south-west of F31 lay a small cut feature F26 (Fig. 9. C). The upper part of this feature had been destroyed by the cut for modern glazed water pipe 14, which had also damaged this side of F31 (Fig. 2. 3). Feature 26 was a fairly steep-sided, slightly oval-shaped cut which lay across the trench extending beyond the limits of excavation on the north-west side. It was 0.3m deep with a maximum width of 0.35m. Four sherds of sandy orange ware, late medieval in date, probably from a cistern, were recovered from its fill 27. This feature, which was likely to be the base of a truncated pit or posthole, was similar in date to F31, but the relationship between these features was ruined by the modern pipe cut F14.

F35

This feature lay near the east end of trench B and was a bowl-shaped cut 0.40m wide by 0.30m deep, and was probably a posthole or small pit. It had cut the upper fill of F31, context 32 (see above), and was post-medieval in date.

Discussion

Features 8 and 10 were stakeholes/postholes dated to the 12th to early 13th centuries. They formed a linear alignment with three similar but undated features, F6, 18 and 23, suggesting they were all part of the same structure, possibly a boundary fence, or perhaps, the side of a building. If a boundary, then their identical alignment with that of the present property suggests, perhaps, that the original medieval property plot layout has remained virtually unchanged for several hundred years.

The full extent of both F20 and F31 could not be determined from such limited trenching. However, enough was exposed to show that they were substantial features and F31 was shown to be the north-west extent of a large cut.

Without complete excavation it is difficult to apply a date to the original excavation of these features, although the strong dating evidence in their lower fills allows a date of late 15th to early 16th century for these deposits. These fills contained large amounts of pot-sherds, tile, brick and animal bone (some with butchery marks), leading to the conclusion that they functioned as a rubbish pits. However, both cuts were alike in profile – an initial shallow slope suddenly changing to a vertical cut. Further, the matrix of their fills were comparable and the finds, especially the pottery, were similar in date. Therefore it seems possible that these two features were in fact one, perhaps a late medieval ditch aligned north to south, butt-ended to the north, although a ditch on this alignment is difficult to understand in view of the earlier alignment of the 12th/13th-century boundary (see above). It would also imply that the stretch of ditch linking the excavated F20 and F31 ran beneath the corner of The Gardens (refer to Fig. 9.C). If the mid 15th-century date postulated for the house (below) is correct, it would seem unlikely that such a deep ditch could have existed there at that time, and on balance, the hypothesis of two separate features may be preferable.

Features F20 and F31 are likely to be contemporary with part of the western half of the existing 'Gardens' property which has been identified as a small domestic, cross-wing structure, probably dated to the mid 15th century (see below).

The fragments of red deer antler found in the lower fills of both F20 and F31 are curious and need further mention. They could possibly have occurred as a result of butchery after hunting, but this would not explain the absence of any accompanying bones of this animal. An alternative hypothesis is that they represent the waste or discards from local industrial activity, which selectively exploited antler as a raw material. The antler may have been obtained from hunters at the castle or gathered after the deer had shed their antlers in the spring.

The unusual brick fragment, found in fill 21 of the late medieval pit/ditch F20, is distinctive in that it has triangular depressions on both faces, probably made with a trowel or knife. Although incomplete, it is *c.*80mm high with a surviving width of 110 mm and appears to curve throughout its surviving length of 120 mm. The outer face is coated with a cream slip and bears traces of soot. It may have been part of a chimney.

This brick is similar to a fragment found during excavations at Pleshey Castle earlier this century (Miller Christy 1922, 203), and this latest fragment may also originally have come from the castle. It has parallels with other types of special medieval chimney bricks found at King John's Hunting Lodge, Writtle (Rahtz 1969, 113) and Pleshey Castle (Drury 1977).

Lastly, feature 26, lying close to the west side of F31, was a truncated posthole or pit, also late medieval in date.

Finds reports

Medieval and later pottery

by Helen Walker

A total of 208 sherds weighing just over 4 kg was excavated and has been recorded using Cunningham's typology (Cunningham 1985a, 1-4). The range of fabrics from each context is shown in Table 1.

Most pottery comprises late medieval sandy orange ware vessels dating from the late 15th to perhaps the earlier 16th century. Fabrics 12B-35 and Fabric 40 are described further in Cunningham (1985a and b) and Drury (1993).

Table 1

Fabric 12B:	Shell-and-sand tempered ware.
Fabric 13:	Early medieval ware.
Fabric 20:	Medieval coarse ware.
Fabric 21:	Sandy orange ware.
Fabric 22:	Hedingham fine ware.
Fabric 35:	Mill Green fine ware.
Fabric 35B:	Mill Green-type ware.
Fabric 40:	Post-medieval red earthenware.
Fabric 45M:	Modern stoneware.
Fabric 48B:	Porcelain.
Fabric 48D:	Ironstone.
Fabric 48E:	Yellow ware.
Fabric 48R:	Red stoneware.
Fabric 48X:	Miscellaneous post-1800.
Fabric 51A:	Late kitchen earthenware.

Pottery from stakeholes/postholes F8 and F10

Both these features contained sherds of early medieval shell-and-sand-tempered ware (Fabric 12B), which has the extreme date range of 10th to 13th centuries, although in practice sherds belonging to the earlier part of this date range are rare. The sherds of Fabric 12B from F8 show sparse inclusions of crushed flint as well as sand and shell. Feature F10 also contained a single sherd of medieval coarse ware, a grey-firing sand-tempered ware spanning the 12th to 14th centuries. The occurrence of these two wares together suggests a 12th to early 13th-century date for the infilling of this feature.

Pottery from pit/ditch F20 and posthole/pit F26

The largest group of pottery from the site was excavated from F20. Pottery was found in the primary and secondary but not in the top fill. Cross fits between fills 21 and 22 indicate they were deposited at the same time. Small amounts of residual early medieval and medieval fabrics were found in both fills (Fabrics 12B, 13 and 20), and of note is a single sherd of decorated Hedingham fine ware probably belonging to the early to mid 13th century (Fig. 11, 1).

Nearly all the pottery from this feature is sandy orange ware. This is the hard, sparsely glazed, late medieval version as described by Cunningham (1985a, 1). It dates mainly from the 15th to mid 16th-centuries, and mainly large utilitarian vessels were produced. Forms include the base of a cistern (Fig. 11, 2) and parts of two other similar bases that may be from cisterns or large jugs (the bung-holes are absent). The more complete base has been illustrated (Fig. 11, 3). There was no trace of the top halves of these vessels. Other sandy orange ware forms comprise a bowl fragment with a simple thickened rim (Fig. 11, 4) and a fragment of lid-seated jar rim, glazed externally with a thin plain lead glaze. It is too fragmentary to merit illustration but lid-seated rims developed in the 15th century (Hurst 1961, 274). Only one sherd of sandy orange ware is slip-painted.

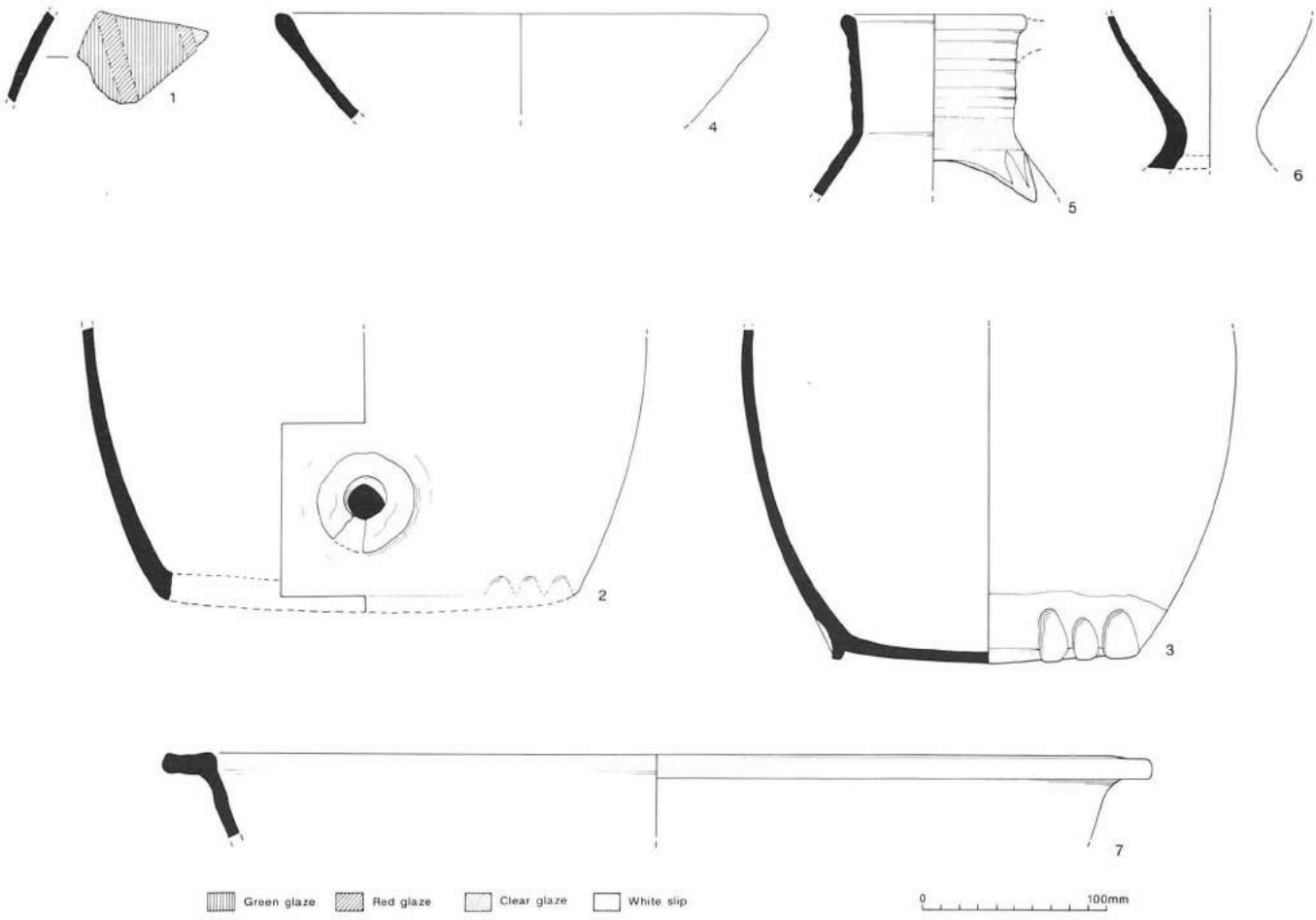


Fig. 11 'The Gardens', Pleshey: medieval and post-medieval pottery.

Also present in the pit/ditch are sherds of Mill Green-type ware. Mill Green-type ware is classified as pottery having the same fabric as Mill Green ware but showing different forms or types of surface treatment. Many such examples are late medieval types and could also be classified as post-medieval red earthenware. They are distinguishable from medieval Mill Green ware by their increased hardness and a frequently reduced 'skin' on the surface. One slip-painted jug rim in this ware is illustrated (Fig. 11, 5). In addition, a few sherds of post-medieval red earthenware were found. This ware is also described by Cunningham (1985a, 1-2). It first occurs in the later 15th century, superseding sandy orange ware sometime in the 16th century and carries on beyond the 18th century with little change in fabric. No post-medieval red earthenware forms are present except for a curious hollow ware form (Fig. 11, 6). It has a very abraded internal surface which may indicate a secondary use after breakage.

Posthole/pit F26 produced four sherds of thick-walled late medieval sandy orange ware, probably from a cistern.

Pottery from pit/ditch F31

These features produced an assemblage similar to that from pit/ditch F20, i.e. sandy orange ware predominates and there are smaller amounts of Mill Green-type ware and post-medieval red earthenware. However, no cross-fits with F20 were noted. Most pottery came from context 34, the lowest excavated fill of pit/ditch F31, where the earliest sherd is a fragment of residual green-glazed Mill Green ware (*cf.* Pearce *et al.* 1982) showing combed decoration. A sandy orange ware bunghole from a cistern was found and is similar in shape to Fig. 11, 2. Other forms in this ware comprise a flanged rim from a large bowl (Fig. 11, 7) and a lid-seated rim with an internal glaze. There is also a fragment of a post-medieval red earthenware unglazed jar with a flanged everted rim. It probably corresponds to Cunningham's jar type C4 which first appears in the 15th century (Cunningham 1985b, 69). Sherds from the same sandy orange ware vessels occur in secondary fill 33, indicating the two fills were deposited at the same time. The upper fill 32, contained two later sherds which are probably intrusive; the rim of a black-glazed ware tyg or cup dating from the 17th to 18th centuries, and a sherd of modern stoneware.

Pottery from posthole/pit F35

Feature 35, which cut the fills of F31 produced a single sherd of Mill Green-type ware no doubt derived from the earlier feature.

Pottery from layer 2 and above

Layer 2 produced a large range of pottery dating from the early medieval period to the 19th/20th century. Pottery from the remaining features is modern. Two sherds found unstratified are however, worth noting; a shell-and-sand-tempered ware beaded rim from a cooking pot which is very similar to the pottery found in feature 10, its rim type characteristic of the 12th century. The second sherd is a fragment of glazed red stoneware showing engine-turned decoration datable to *c.*1770.

Pottery catalogue (Fig. 11)

1. Jug fragment: Hedingham fine ware; uniform orange fabric with paler orange internal surface; red slip-painted stripes beneath a two-tone glaze, mainly pale green with a clear glaze to the right of the second strip; probably an indirect copy of North French pottery (*cf.* Pearce *et al.* 1985, fig. 33. 105-6). Fill 21 (pit/ditch F20).
2. Base of cistern: sandy orange ware; orange with grey core and reduced patches externally; occasional splashes of glaze; basal angle thumbed in groups of three; knife-trimmed above base; abraded bunghole. Fill 22 (pit/ditch F20).
3. Bottom half of vessel: sandy orange ware; from either a cistern or large jug; orange fabric, dark grey core with darker purplish external surface; laminated fracture; basal angle thumbed in groups of three; knife-trimmed above base; splashes of green glaze; abraded patches on sides. Fill 22 (pit/ditch F20).
4. Bowl rim: sandy orange ware; dull orange-brown fabric; thin, partial internal plain lead glaze. Fill 22 (pit/ditch F20).
5. Jug rim: Mill Green-type ware; orange external surface, thick grey core and reduced internal surface; cream slip-painting; patch of plain lead glaze. Fill 22 (pit/ditch F20).
6. Unidentified form: post-medieval red earthenware; buff rather than red fabric; laminated fracture; heavily abraded internally with most of surface missing; all over external plain lead glaze with glaze on the inside where surface is present; occasional patches of sooting on external surface; has been drawn as a base but could well be the other way up. Fill 21 (pit/ditch F20)
7. Bowl rim: sandy orange ware; uniform orange fabric; partial thin, internal plain lead glaze with a splash of glaze on the rim. Fill 34 (pit/ditch F31).

Discussion

The only features datable to the medieval period are stakeholes/postholes 8 and 10, but residual medieval fine wares in pits 20 and 31 also indicate activity during the 13th to 14th centuries.

As for the late medieval period, the presence of sandy orange ware and post-medieval red earthenware together would indicate a late 15th to earlier 16th-century date for deposition, although this may only be true for sites in central Essex (Cunningham 1985a, 1). Cisterns were common at this time, especially during the 16th century and were used for the brewing and storage of ale, the consumption of which became more widespread during the late medieval period (Cunningham 1985a, 4 and 14; Dyer 1982, 40). Limescale deposits however, are sometimes found on the insides of cisterns, indicating they were also used as water containers.

The source of production of the sandy orange ware vessels found here has not been identified, but is probably local. Unlike the earlier industries (such as Mill Green and Hedingham), the different sandy orange ware fabrics are not readily distinguishable, and forms and decoration (where present) are also fairly standardised. This may be a reflection of the changes in organisation of the pottery industry in the late medieval period whereby there were fewer potters producing pottery on a larger scale (Dyer 1982, 39).

The only evidence for activity later in the post-medieval period is the sherd of 17th to 18th-century black-glazed ware at the top of pit F31.

Miscellaneous finds

by Hilary Major

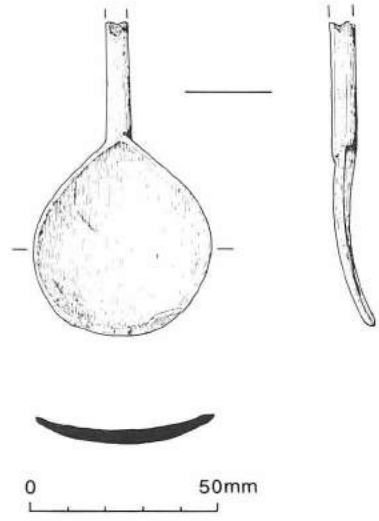


Fig. 12 'The Gardens', Pleshey: bone spoon bowl.

Bone

Context 2 Spoon bowl; pear-shaped, with broken handle. The shape is reminiscent of 15th/16th-century spoons in metal. Bowl W 24 mm, L 25 mm (Fig. 12).

Quern

Context 34 Fragment from a medieval flat lava upper stone, with part of the edge and central hole present. The grinding surface is pecked in a band about 50 mm wide around the central hole, with worn radial grooves extending to the edge of the stone. It has broken across a conical handle hole on the top face, which almost perforates the stone. The other broken edge may also have broken across a hole, but this is less certain, since the top of the stone is rather irregular. The stone is slightly thicker at the edge. Diameter *c.*520 mm, 20-29 mm thick, diameter of central hole *c.*70 mm, diameter of handle hole 17 mm, depth 22 mm.

Brick and tile

by P. M. Ryan

Fragments of brick were found in layers 1 and 2, and in fills 21 and 22 of cut feature F20. Most were too abraded to identify with any certainty. However, those from 21 and 22 are medieval.

A large fragment recovered from 21 is particularly unusual (Fig. 13). Both bed faces of this special brick have triangular scooped out depressions, and one outer face was slightly convex and coated with a cream slip, and also possibly sooted. The depressions are c. 30mm deep at the pointed end, 27mm wide at the shallow end and 50mm long. It was orange to purple in colour. This brick fragment is *c.*80mm high, *c.*110mm wide and *c.*120mm long. Unfortunately it is not complete, both ends and the 'back' being missing. The 'scoopings' on the upper and lower faces were made by inserting a pointed knife into the green brick at an angle, and then levering the point upwards.

Eames (1980, I, 19) suggests that the scooping out of hollows in bricks and floor tiles not only aided the keying of the mortar, but also aided the drying and firing processes and was more widely used in the 13th century than later. Several instances of medieval bricks with triangular 'keying impressions', 'gougings' or 'scoopings' have been found in Essex but in no instance has the dating been very secure. Huggins (1972, 113) reported on special bricks with 'triangular impressions' in the oven floor of a 15th-century building at Waltham Abbey, but all appeared to have been re-used. Special bricks with gouged out triangular depressions have been found at King John's Hunting Lodge, Writtle (Rahtz 1969, 113) and also at Pleshey Castle (Drury 1977, 86). These depressions appear to have been lined out with a knife prior to being gouged out.

In both instances the bricks formed a hollow polygonal shaft and were glazed with a brown glaze on the outer face. It is thought they were probably used for constructing chimney shafts. In neither case is the dating very secure. At Writtle the bricks were found in 14th to early 16th-century contexts. Drury suggests that at Pleshey they may have been introduced in the 14th or early 15th century.

Traces of sooting on the slipped face of the fragment from 21 suggests it may also have come from some part of a chimney structure. Its fabric is fairly similar to the Writtle and Pleshey chimney bricks. Taking into consideration its provenance it seems probable that it came from some part of a chimney structure at Pleshey Castle.

The fragments of roof tile are all too small to make any other observation than that the number of sherds with peg holes and the lack of identifiable fragments from nibbed tiles suggests they are all post *c.*1250.

Faunal remains

by Owen Bedwin

A total of 32 fragments of bone, teeth and antler were identified from 11 contexts. Four species were present:

Bos 17; Ovis 5; Sus 3; Cervus elaphus (red deer) 7.

From such a small assemblage, it is not possible to draw any conclusions, though the 7 fragments of red deer (all antler) are of note. One of the antlers has been roughly sawn off at the base.

Note on the standing building at The Gardens

by D.F. Stenning

The western half of the existing building is a small, domestic cross-wing of the mid-late 15th century. It is a 'single-ender,' in that it incorporates a solar and chamber over a parlour and one service room. The author would prefer a mid 15th-century date on the basis mostly of the jettied front having the 'archaic' feature of a double window and centred jetty bracket. A complete single ender of this type is relatively rare and perhaps reflects modesty of ambition, which is echoed by the small size (but good carpentry) of the studwork. The author suggests that it is likely that the cross-wing replaced service rooms in a pre-existing 'in-line' hall as there are no fixings for a contemporary hall range in the flank of the wing. The hall was rebuilt as a two-storied block, probably in the 18th century. One possible fragment of the hall is represented by a section of re-used top plate with mortices for a typical hall window, all of some size and quality. It is possible that there was a flank chimney stack from which perhaps the fragment of medieval brick came. The roof is of collar/rafter type, with no crown post, again reflecting small size and utility.

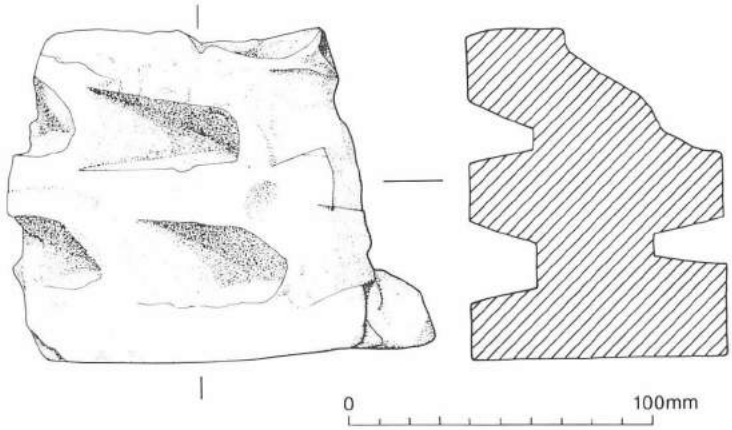


Fig. 13 'The Gardens', Pleshey: medieval 'chimney' brick.

Acknowledgements
Thanks are extended to Mr. and Mrs. J. Oates, owners of 'The Gardens', for allowing access to their property, and for their help during the excavations. Fieldwork was carried out by the author with the assistance of Dave Smith. The finds were identified by Helen Walker (medieval and post-medieval pottery); Hilary Major (miscellaneous finds); Pat Ryan (brick and tile) and Owen Bedwin (faunal remains). The illustrations for Figs 9 and 10 were by the author and Figs 11-13 were prepared by Iain Bell and Nick Nethercote.

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The outer bailey ditch at Rayleigh Castle: observations at 23 Bellingham Lane, Rayleigh 1991

by Steve Godbold

Introduction

In June 1991, a watching brief was carried out at 23 Bellingham Lane, Rayleigh (TQ 8068 9089) by Essex County Council's Field Archaeology Group, in advance of the construction of an extension on the south side of the premises. The site lies about 100 m east of the earthworks of Rayleigh motte and bailey castle, on the postulated line of the outer bailey ditch, believed to follow the course of Bellingham Lane (Fig. 14; Helliwell and McLeod 1981, 2). Parts of this feature were apparent to the east of the inner bailey until the early years of this century (Eddy and Petchey 1983), and a ditch identified as that of the outer bailey was archaeologically investigated in 1983 and 1985 on the site of the Regal cinema (now demolished) 80 m to the south of the 1991 observations (Milton 1987; Fig. 14).

The castle itself is mentioned in Domesday Book and is therefore one of the oldest in the country. The area of the motte and inner bailey is a scheduled ancient monument.

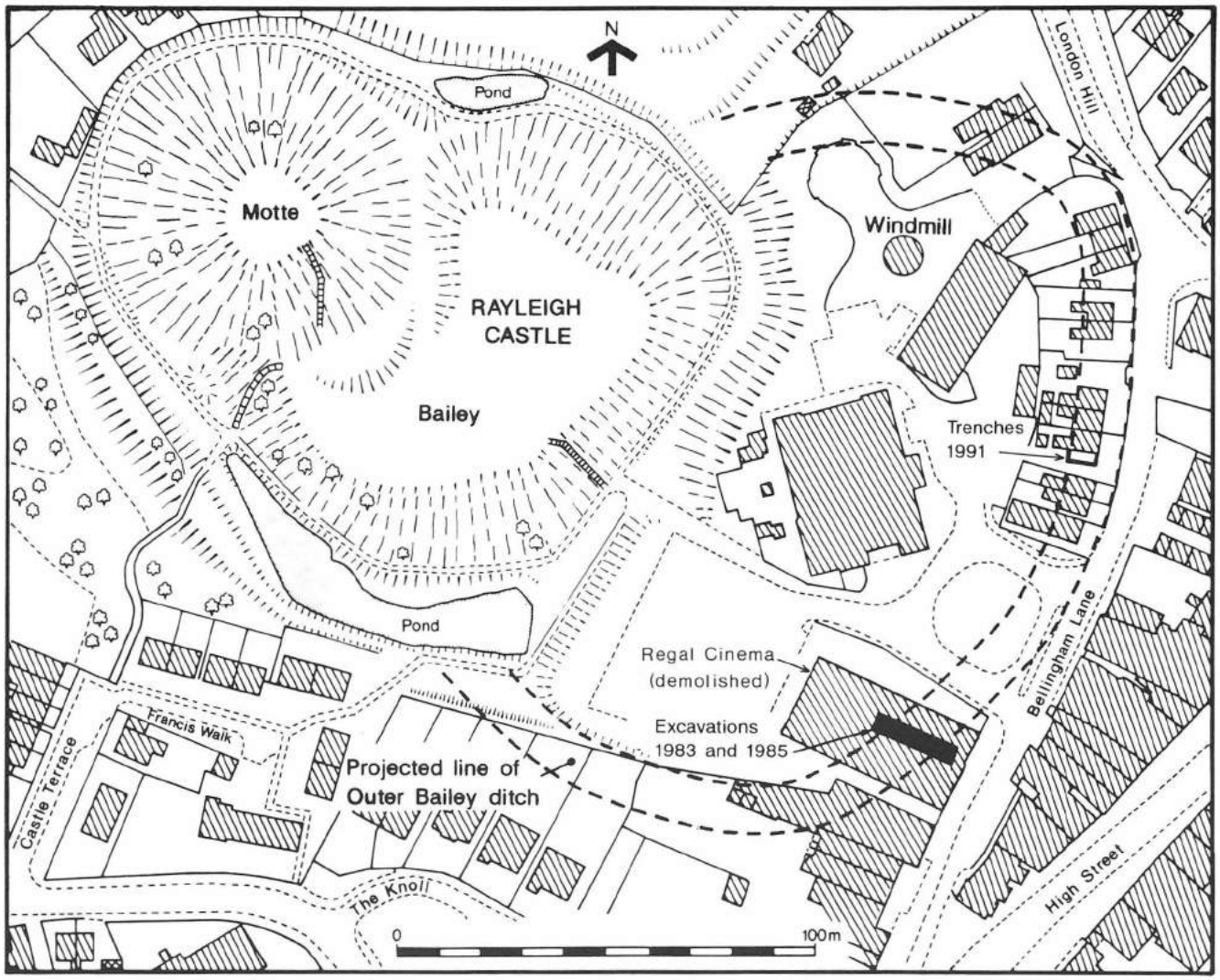


Fig. 14 23 Bellingham Lane, Rayleigh; site location. © Crown copyright 87584M.

from this layer, along with some oyster shell. Two further layers, 5 and 6, were identified at the east and west ends of the trench respectively below layer 4, both dipping below the limits of the excavation. Layer 5 was a yellow-brown silty clay, whilst 6 was a yellow, slightly silty sandy clay. Both contained charcoal traces but no datable finds.

Conclusion

With the exception of the topsoil, all the deposits in the trench lay in a concave fashion across the length of the longer trench, compatible with being fills within a large feature the edges of which lay beyond the limits of the excavation. It seems likely, therefore, that this feature could be the outer bailey ditch, running beneath the properties on the west side of Bellingham Lane, and a continuation of the ditch found by Milton (1987). The finds from layer 2, the upper fill of the ditch, suggest that the material was probably deposited to level the ditch during the 19th century. Although too much reliance cannot be placed on a single sherd of pottery, the medieval sherd recovered from layer 4 may represent 14th-century backfilling of the ditch.

The finds

Clay pipe

by Hilary Major

A mid 19th-century clay pipe bowl, with the initials ID on the spur. The left side has a poorly moulded Royal standard on a flag pole, with a ?wreath below, and on the right side a female bust, perhaps meant for a young Victoria. The seams bear leaves. Pipes marked ID have been recovered from Maldon, Chelmsford and Braintree, and the maker has been identified by Simpson (1982, 10) as John Dunnett of Maldon, working between 1835 and 1862. The initials on the Rayleigh pipe are in the same style as those illustrated by Simpson. None of the Maldon pipes assigned to John Dunnett have such elaborate moulding, being mainly variations on the fluted bowls with leaves on the seams. However, one of the locations with ID pipes also yielded a bowl fragment with part of a standard on it (Simpson 1982, 20, no. 165) from the same or a similar mould to the Rayleigh pipe. Some of the Chelmsford pipes marked ID are elabo-

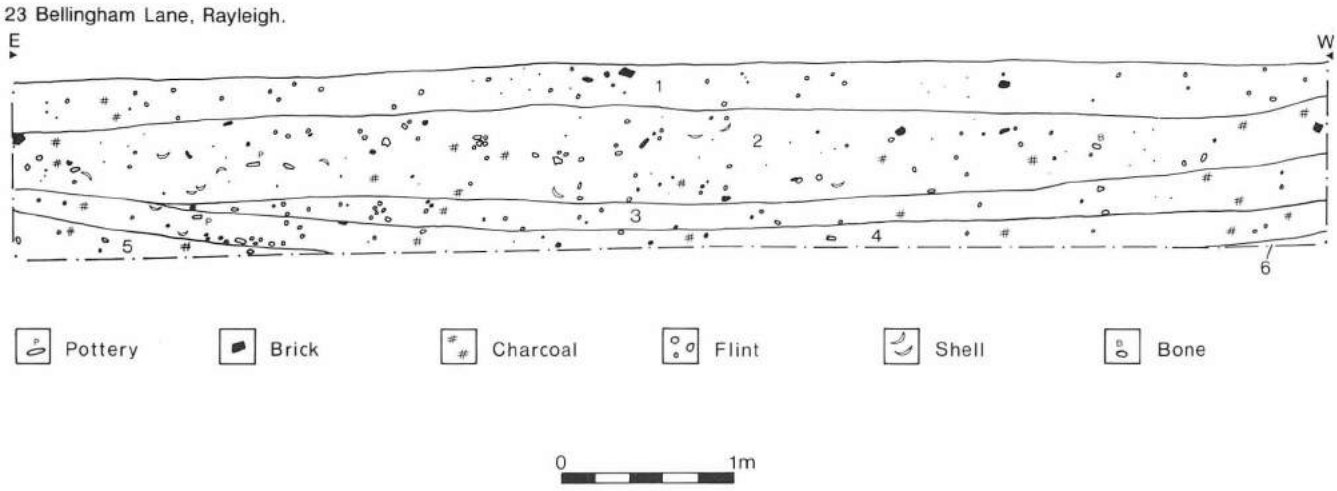


Fig. 15 23 Bellingham Lane, Rayleigh; north-facing section.

rately moulded in the shape of male heads, although the initials are in a slightly different style, and they may have come from a different maker (Major, in prep.).

The pottery
by Helen Walker
Ten sherds were recovered; details in the site archive.

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Excavations at Houchins Farm, Coggeshall, 1996

by Susannah Chapman and Vic Scott

Five small trenches were dug at Houchins Farm by members of the Colchester Archaeological Group in July 1996 at the request of the site's owner. Four trenches were placed so as to investigate a partly silted moat to the north of the house; the fifth trench was dug against the south wall of the house.

In spite of the drought conditions of July 1996, the presence of water continually seeping through the clay, brought home the need for drainage ditches to make the site habitable. The constant availability of water would explain why the site was originally chosen for habitation. Not only was it found necessary to dig ditches, but also it seems to have been necessary to raise particular areas artificially to achieve dry land. The house and immediate garden stand on a clay outcrop, surrounded by a wall which retains the soil, so that the area lies several feet above the surrounding land, except to the north. The south-east corner of the farmstead has modern barns lying on a platform raised several feet above the surrounding area, with a small drainage ditch to the north, as well as the moat which lies to the east and south. The third raised area is the old vegetable garden lying behind the house, carved out of the large field to the north and standing about a foot higher than it. It stands higher than the ground level of the house and garden by several feet.

The trenches across the moat established its dimensions as 5.5m wide and 2.5m deep, with a wide, flat bottom. Finds were abundant throughout the silts, consisting of mainly 19th and 20th-century pottery, glass, metal and clay pipes, right down to the floor of the moat. Some medieval and pre-19th-century pottery was mixed in with all this. The evidence does not itself date the construction of the moat here, since it could have been cleaned out several times. More telling is the fact that, although the moat in its modern form, i.e. surrounding the house and including an extra lens, appears on the 1841 Tithe map, no such feature appears on a 1764 survey map, which shows only the lens of water to the south. The fact that this stretch of water is shown is an even stronger indication that if there had been a moat at that time, it would have been marked. The 1764 survey also does not show the raised kitchen garden area at the back of the house, clearly delineated in 1841. It is therefore tempting to suggest that the moat in its present from was dug sometime between 1764 and 1841 and the earth from it deposited to the north and fenced off from the main field to make the garden. However, it is also clear that some form of ditch for drainage purposes must have coincided with the ear-

liest occupation of this farmstead, so copious was the supply of water.

Like the trenches across the moat, the trench to the south of the house yielded pottery of both modern and medieval date, and more medieval pottery was picked up from the flower beds. All the medieval pottery was identified by Helen Walker of Essex County Council Archaeology Section, who confirmed the earliest pottery as early medieval coarse ware (11th to 13th century), with Hedingham Ware (12th to 13th century), medieval coarse ware (12th to 14th centuries, Suffolk buff ware (?14th century) and Colchester Ware (13th to 14th century). The presence of these sherds suggests occupation on the site pre-dating the earliest place names of the 15th century (Reaney 1935), and a possible 14th-century reference (Morant 1768).

Subsequent fieldwalking in eight of the farm fields, mainly those adjoining the house, produced the same mix of pottery as found during the excavations, but the earlier material found, though probably medieval, was too abraded to allow specific identification, except for three fragments of a cooking pot, picked up in the ditch by the path to Earls Colne, just behind the house. One fragment was a B2 rim, datable to 1200, or shortly thereafter, and this provides further support for the other evidence of 13th-century use of the site.

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The Ingatestone lock-up

by James Kemble

The former Ingatestone lock-up cell (Plate 1) now stands in the yard of Drury's Farm, Mountnessing, opposite the George and Dragon public house (TQ 628 974). It is of stout oak construction, 10ft 6in by 6ft 9in, 8ft 3in to the eaves, with a hinged door at each end, and evidence of large (now much damaged) locks on each. The cell now has a tiled roof, and stands with its long axis north-south. There is a small window, with an iron grille in its east side, and a smaller one with a single wooden mullion in the west side. Internally, the cell is divided into two unequal compartments by a stout cross partition, about one-third of the way from the north end.

The lock-up has been in the farm yard for at least 100 years, and was bought by the present owner's grandfather as a storage shed. It formerly stood to the east of 'The Old Forge' (now 53 High Street,

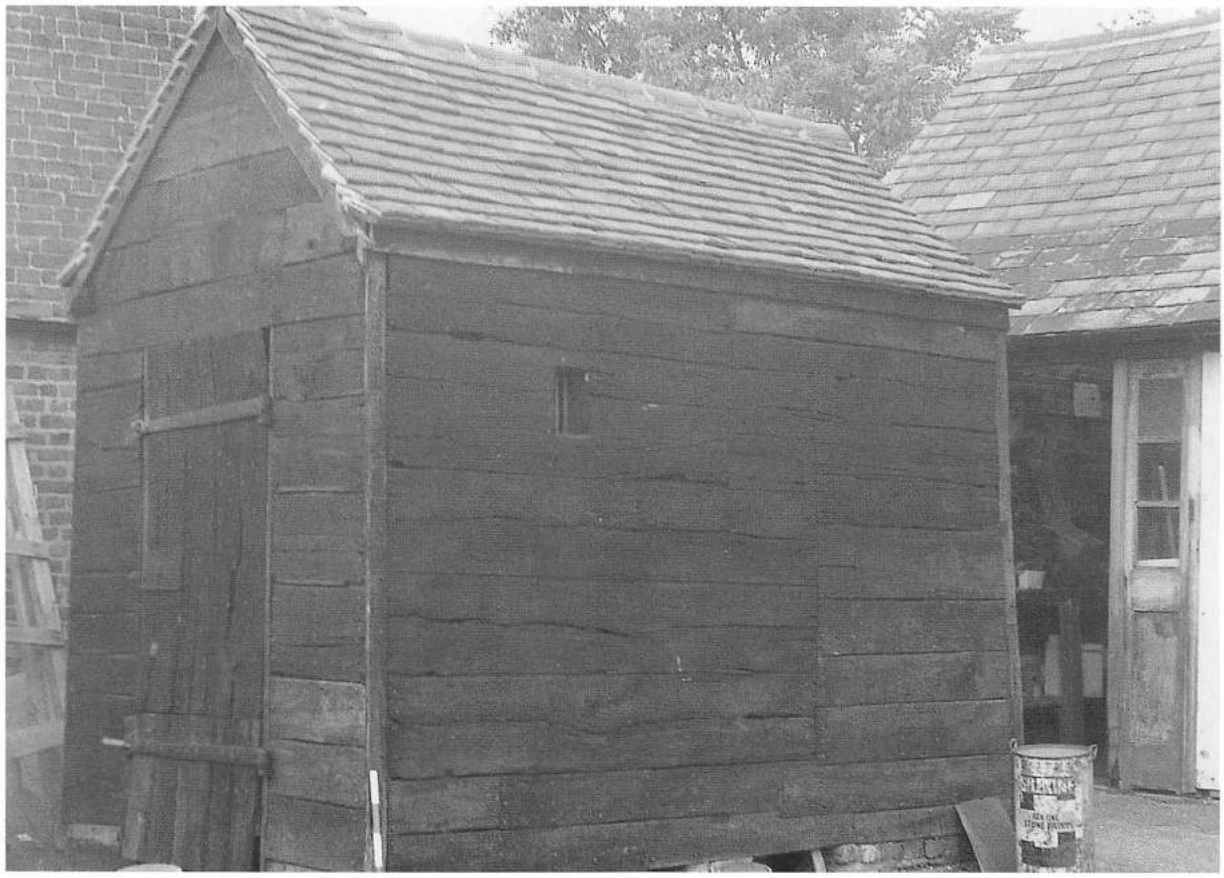


Plate 1 The Ingatestone lock-up, photographed from the south-east in 1996.

Ingatestone). John Self was constable in 1834 and tenanted the land on which the lock-up stood from Lord Petre, and its last reported prisoner was at the time of the construction of the railway about 1845.

It was partially restored by the present owner in 1993, when the roof was tiled, and the north door, external lower boards and floor planking were renewed, using seasoned oak from the farm and 'home made' nails.



Plate 2 The dovecote at Hedingham Castle from the east-north-east, showing the numeral 0 in the brickwork at left, and an original window and later buttress at right. (Photo: J. McCann)

The Dovecote at Hedingham Castle

by John McCann

The octagonal brick dovecote at Hedingham Castle is unusual in being firmly dated to 1720. In 1931 it was described and illustrated by Donald Smith (Smith 1931, 160-1). These notes extend and correct his information, and describe the building as it is 65 years later.

(Dimensions are given in the units in which the building was built. 1 inch = 25.4mm, 1 foot = 305mm).

The site

The present house at Hedingham Castle was built by Sir William Ashhurst, M.P. and Lord Mayor of London, between 1693 and his death in 1719. The estate passed to his eldest son Sir Robert Ashhurst, who built the dovecote and incorporated his initials and the date in the structure (Anon 1995, 16). It is situated about a hundred metres south-east of the house on a gradient falling steeply to a lake, now closely hemmed in by ornamental trees, none of which are of great age. As contemporary writers made clear, trees could not be allowed to grow near a dovecote in use, because they provided concealment for birds of prey (Colvin and Newman 1981, 100-1).

The exterior

The walls stand 15 feet high, formed of red brick in Flemish bond, with lime mortar. The bricks are 8½ x 4½ x 2½ inches, all rubbed to size; at the angles they are accurately cut and rubbed to shape. Four courses rise 11½ inches. The concave eaves cornice is of purpose-moulded bricks. Buttresses of nineteenth-century brick have been added at each angle, varying in height from 3½ feet to 5½ feet according to the gradient.

Smith wrongly stated that the date 'stands in black brick upon the south wall'. In fact the initials R A and the date 1720 are formed with one letter or numeral on each face of the octagon, of black headers set in the brickwork, 11 – 12 courses high, beginning on the north-west face and ending on the east face (Plate 2). The north-east face is plain, and the north face has only a simple Greek cross formed of four black headers.

The door and windows

The oak door-frame in the south-west face is original, forming an aperture 5 feet 9 inches by 2 feet 1 inch, with a simple roll moulding; it is fitted with a modern slatted door. The pintle hinges of the original door remain in the right jamb. There are two windows – in the south-east face (below the numeral 2 of the date) and in the otherwise blank north-east face. Both have original oak frames, with apertures 2 feet high by 2 feet 2 inches wide. The former retains the original central mullion of rectangular section, and two vertical iron saddle bars of square section, set at 45° to the frame as was common in the seventeenth and eighteenth centuries. (When seen by Smith it was blocked; now it is covered by ivy). The other window is less complete, having lost the mullion and saddle bars. Both have external rebates for panels of leaded glazing, now missing, replaced by wire netting.

The roof

The roof structure has been rebuilt in modern softwood, clad with old hand-made red clay tiles with leaded hips; it retains the original 'pipe' and its associated framing. The pipe is a shaft two feet square and two feet deep descending into the interior from the lantern, a protective device against the entry of sparrowhawks (McCann 1991, 132-3). This one is unusual in being formed of laths and lime plaster; most of the pipes which survive are of sawn boards. The lantern or louver ('lover' in Smith's account) is modern, but it follows the authentic pattern shown in his sketch (Plate 3). Each side has six glazed lights; below them are horizontal slots six inches deep, which allowed the pigeons to enter while keeping out the larger birds of prey (McCann 1991, 129-31).

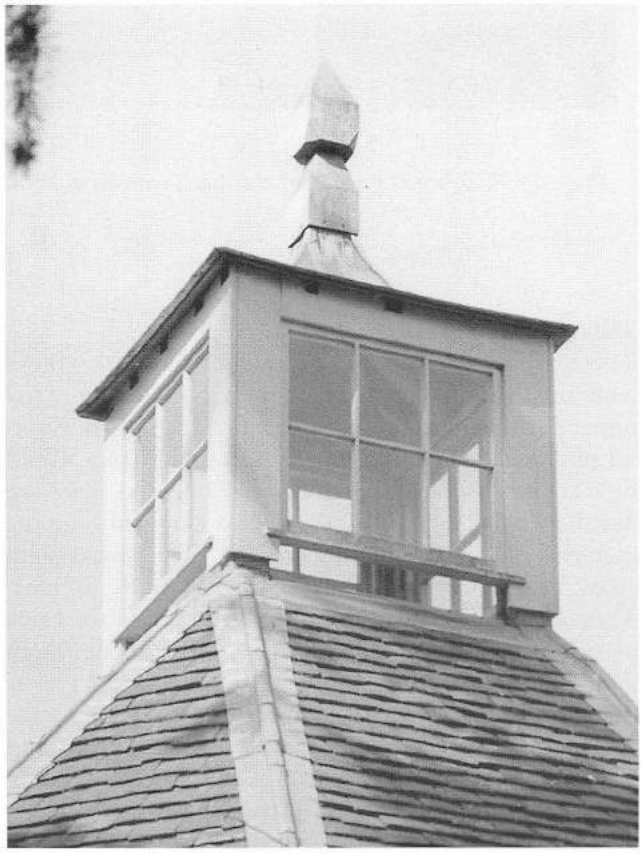


Plate 3 The modern lantern, which closely follows the design of the one illustrated by Donald Smith in 1931. The horizontal slot below the glazing is wide enough to allow the pigeons to enter, while keeping out the larger birds of prey. (Photo J. McCann)

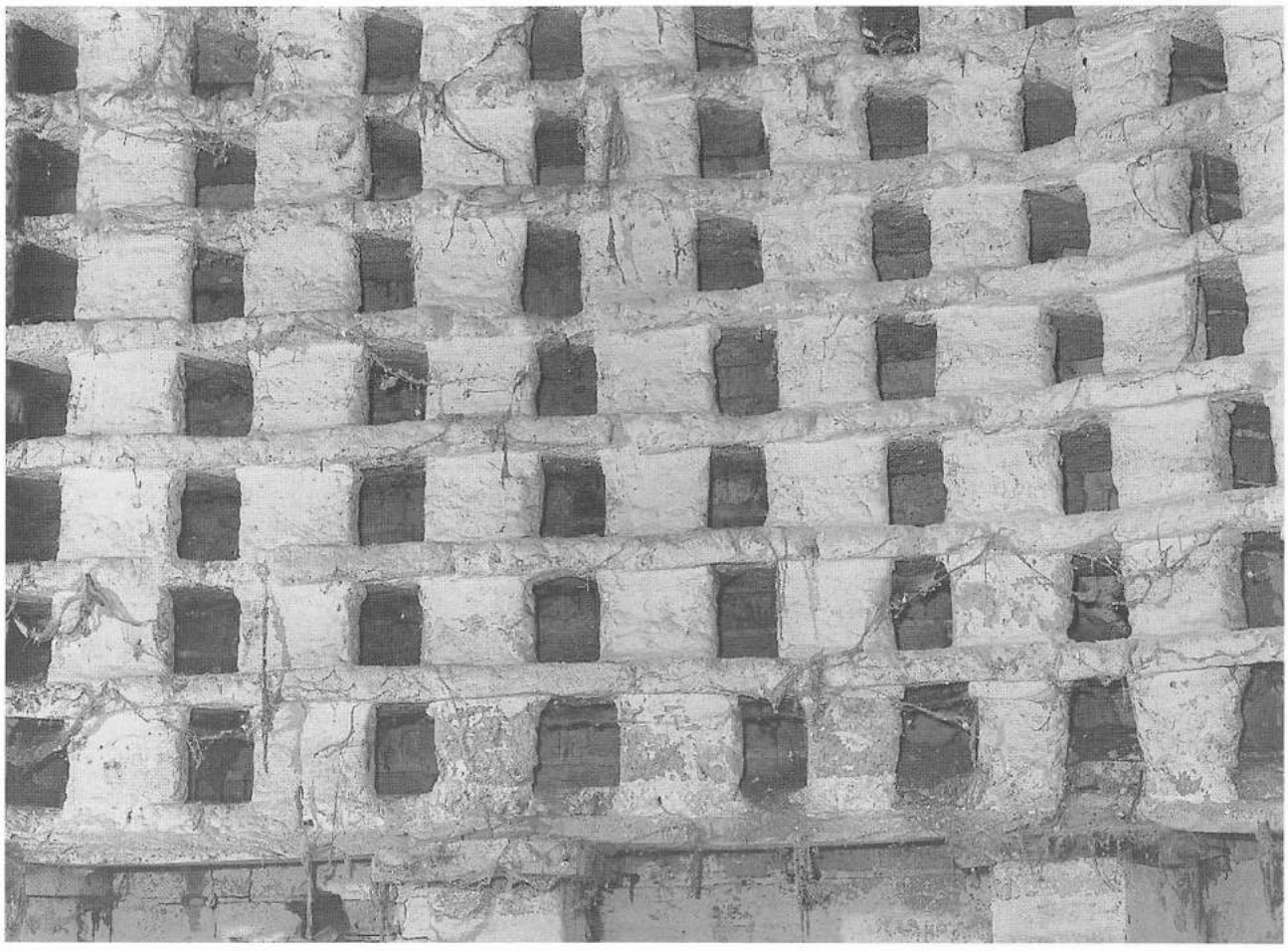


Plate 4 Nest-boxes formed of clay bats, with an alighting ledge to each tier, supported on an oak sill on tall brick piers. (Photo: J. McCann)

The interior

There are nest-boxes on only five of the walls (those without a window or door aperture), and on only the upper parts of those. Smith described the nest-boxes as 'of puddled clay', but a more appropriate term would be 'clay bats'. Elsewhere in eastern England there are nest-boxes formed *in situ* of puddled clay, but here the material, yellowish chalky boulder clay mixed with straw, was pre-formed in rectangular slabs or bats. They stand on a two-inch oak sill mounted on brick piers 1 foot 5 inches x 9 inches x 5 feet 8 inches high. The floors of the nest-boxes are of clay bats 2 inches thick, projecting to form alighting ledges 2 inches wide (Plate 4). Each box is 6½ inches high, the front and side walls formed of clay bats 3 inches thick, enclosing a space 10 inches wide by 11 inches from front to back, with an offset entrance 4½ inches wide and of full height. The boxes and the exposed brickwork have been lime-washed in accordance with traditional practice.

There are 14 tiers of nest-boxes. One assembly is built continuously across three adjacent walls, with 19 boxes in each tier, providing 266 boxes. A similar assembly on the east wall (between the windows) has seven boxes in each tier, providing another 98 boxes, and a third assembly (now wholly collapsed) on the south wall formerly provided another 98 boxes, making 462 in all (as correctly observed by Smith).

Some in the top tier are damaged, so about 350 of the full complement remain in good order. The absence of brick piers on the other walls, or any trace of them, confirms that there have never been any more nest-boxes of this type.

The replacement of the nest-boxes

Smith evidently believed that the present clay nest-boxes are contemporary with the main structure, but there are indications that they were built substantially later. The piers supporting them are not bonded to the external fabric, and the bricks are of a different size and quality. In a few places it is possible to see holes in the brickwork (but now mostly blocked) where battens 3 x 2 inches formerly projected to support an earlier structure of nest-boxes. If the original nest-boxes had been of brick these battens would have been unnecessary, so it is likely that they were formed of sawn boards, as was

common in the early eighteenth century. If boards one inch thick were used it would have been possible to construct eight boxes of the present size on each wall; a complete tier would comprise 64 boxes. With the lowest tier mounted a little above ground to raise it above damp and accumulations of droppings there was sufficient height to construct 20 – 21 tiers. Allowing for those omitted at the door and windows this form of construction would have provided between 1,213 and 1,277 nest-boxes. In the early eighteenth century it was normal practice to fit as many nest-boxes into a dovecote as the structure could accommodate. The replacement of this arrangement by a complement of only 462 clay nest-boxes indicates that it was done at a later period when large-scale pigeon-keeping was in decline.

Historical changes

The introduction of the brown rat, *Rattus norvegicus*, to Britain in the eighteenth century presented pigeon-keepers with a new problem. Contemporary literature shows that before that time the predators they were most concerned about were birds of prey, which could be excluded from the dovecote by protective devices at the pigeon entrance, and quadrupeds of the weasel family, particularly polecats and martens. Unlike the earlier black rats, *Rattus rattus*, the newly introduced brown rats were voracious predators. Their ability to tunnel under walls and gnaw through wood made it difficult to keep them out. If one rat found its way in it left traces which others would follow, and within a short time the whole stock of eggs and pigeon squabs could be destroyed. An effective defence against them was to remove the lower tiers of nest-boxes to a height above which they could not jump or climb. Here the lowest tier stands 6 feet above internal floor level, which would have provided ample protection (McCann 1991, 105-10). Contemporary accounts indicate that brown rats were brought to London by shipping from Baltic ports in the period 1720 to 1730, and that they would have spread as far as Hedingham Castle by 1750 (McCann 1996, 10-11). Sir Robert Ashhurst's dovecote was built to a specification which was satisfactory in 1720, but which became obsolete within a generation. Whether the interior was remodelled with clay bats so early seems doubtful, for on present information they had not come into use at that time. They were certainly being made in Cambridgeshire by 1790, but how much earlier the technique was developed is not known (McCann 1987, 115). Probably there was an intermediate phase in which the lower tiers of the original nest-boxes were removed to protect those above from brown rats. Many dovecotes remain in that state today.

From 1800 the traditional practice of large-scale pigeon-keeping was declining in arable-farming areas. In the French wars the price of wheat rose to unprecedented levels, and farmers became concerned that pigeons were consuming more of the crop than their value as meat merited. Pigeon-keeping was reduced in scale, and practice changed. Instead of allowing large numbers of birds to range over the surrounding countryside to find their own food, landowners and farmers began to feed smaller numbers of birds in the garden or farmyard (McCann 1991, 96-7). Many dovecotes were demolished, and others were reduced in capacity by inserting a floor, retaining the upper part as a pigeon loft while putting the lower storey to another use. At Hedingham Castle the steeply inclined situation did not lend itself to other uses, so evidently the inner structure of nest-boxes was rebuilt to accommodate fewer birds.

There had long been a view among some pigeon-keepers that nest-boxes made of soft materials such as clay or plaster were 'warmer' and healthier for the pigeons than those made of boards or bricks (McCann 1997). This was an opinion rather than a fact, for every building material has been used successfully for nest-boxes, but what the owner believed determined the material used. Here it seems that the opportunity was taken to adopt a softer and 'warmer' material for the smaller number of nest-boxes which had become desirable by this time.

The central feature

Smith described 'in the centre of the house, a raised table some four feet high, which one can only suggest was used in hard weather for feeding and watering the birds'. All that remains of it is an oak post, chamfered with concave stops, mounted in the earth floor. It is 3 feet 6 inches high to a tenon which formerly engaged with the mortise of a horizontal timber. He concluded that there was no evidence of a *potence* or revolving ladder, and commented that this was 'rather strange, since careless use of a ladder would soon damage the clay nests'. Roger North had designed a revolving ladder for the octagonal dovecote he built at Rougham, Norfolk, in 1698; it is reasonable to suppose that this useful device would have been known in Essex 22 years later (Colvin and Newman 1981, 103). Apparently here, for whatever reason, it was not installed. Instead it is likely that some form of permanent staging was provided to enable the pigeon-keeper to reach the nest-boxes conveniently. An example of such staging survives in the great Tudor dovecote at Willington, Bedfordshire, owned by the National Trust.

Acknowledgements

I am grateful to Mr. T. Lindsay for kindly allowing me to examine and photograph this interesting building.

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Medieval and later activity at Thorne Close Avenue Estate, Leytonstone, North East London

by Chris Jarrett

Introduction

Thorne Close Avenue Estate (TQ 3903 8500) is located near to Leytonstone High Road, Leytonstone (Fig. 16) and is within an Archaeological Priority Zone, as defined by the London Borough of Waltham Forest's Unitary Development Plan. In advance of redevelopment from high rise to low level housing[1], an archaeological evaluation was undertaken by Newham Museum Service Archaeological Unit (formerly the Passmore Edwards Museum). There were two phases of evaluation, the first in August 1993 in the area of a car park and the second in the area of a playground in November 1993 (Fig. 17). This latter work led to a rescue excavation in December 1993 (Thrale and Moore 1995). The site is situated on a terrace of Taplow Gravel (British Geological Survey, 1994) with a layer of brickearth overlying the gravel in the western area of the site.

Historical Background

The area now known as Thorne Close was first recorded as Hollywell (later Holloway) Down, and was located on the main medieval road from London to Epping. Holloway Down was part of Ruckholts Manor, situated a mile to the west of the site, and this estate was given by Gunnore De Valognes in 1201 to Haliwell Priory in St. Leonards, Shoreditch. Further to the north, a hamlet 'Leyton atte Stone' is thought to have existed by the 14th century and Leyton, a mile to the north east of the site, as mentioned in the Domesday Book was the main parish settlement or 'vill' (*Essex VI*, 1973, 175).

The Leytonstone area had an agricultural economy, supplying London with produce and by the post-medieval period, its economy had diversified with the addition of horticulture. During the second quarter of the 18th century, Thorne Close was known as Blind Lane, and like the rest of Holloway Down, experienced an increase in housing development. During the excavation, two cottages dating from this period were recorded, perhaps built to accommodate agricultural workers. By 1775, at least three nurseries existed. The earliest, the Holloway Down Nursery was established in 1761, and was located on the eastern side of Leytonstone High Road, but utilised rented fields on Blind Lane in the vicinity of the site. During the mid to late 18th century, potato cropping employed a large Irish labour force. Blind Lane was renamed Irish Lane and the social status of this road declined owing to the poverty of its seasonally employed inhabitants, who frequently over-burdened the poor rate (*Essex VI*, 1973, 200). Industrial activity in the area appears to have been largely confined to clay quarrying for local brick industries, gravel extraction and, less popular, soap boiling (*Essex VI*, 1973, 200).

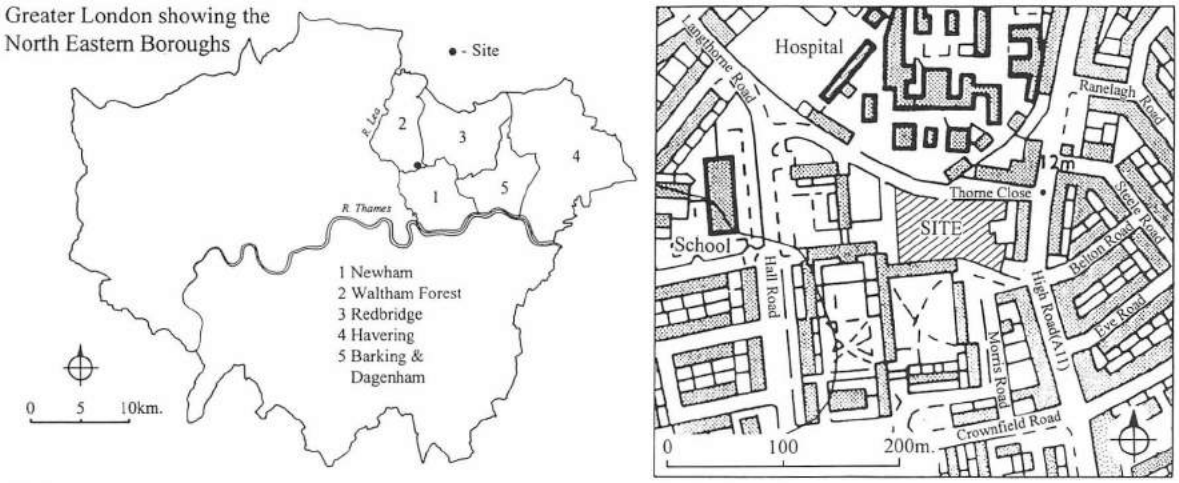
In 1865 the Holloway Down Nursery and surrounding land was sold to the Victoria Land and Settlement Company and by 1867 the Holloway Down area was being laid out for residential development. This resulted in the construction of terraced housing directly over the site, effectively sealing the archaeology. Low-status housing continued into the nineteenth century with the succeeding terraced housing being demolished in the 1960s as it was overcrowded and insanitary (*Essex VI*, 1973, 181).

The Excavation

The Medieval Period

The earliest evidence for activity on the site was a 2.20m wide and 0.65m deep ditch on a north-west south-east alignment. It was initially recorded in Trench 1 and found to continue into Trench 6. The ditch contained a primary fill of gravel, which had resulted from the weathering of the ditch sides. This primary fill contained no finds, unlike the secondary fills which contained large, unabraded fragments of an Early Medieval Sandy Shelly ware (EMSS)[2] (Vince and Jenner 1991, 59-63) bowl and jar (Fig. 18. 1 and 2). The presence of Medieval Coarse ware (Essex Fabric 20) (Walker 1990, 73) dating from the late 12th century to the 14th century, together with Early Medieval Sandy Shelly ware, indicates a date of mid to late 12th century. In Trench 4 there was evidence for at least four re-cuts of the ditch, which indicated that it was maintained frequently; however the lack of diagnostic finds did not allow the re-cuts to be dated.

The ditch appears to have been back-filled by the early 13th century, with material containing sherds of a late 12th-century London-type White Slip Decorated ware (LOND WHSL DEC) large squat jug, and a late 12th to early 13th-century London-type Rouen Style (LOND ROUL) baluster jug, (Pearce 1984, fig. 20, no. 39; fig. 30, no. 81), as well as other contemporary fabrics. Later ploughing appears to have resulted in the truncation of the original level from which the ditch was cut, although a medieval layer did survive and abraded pottery indicated that it was a plough soil, probably contemporary with the ditch.



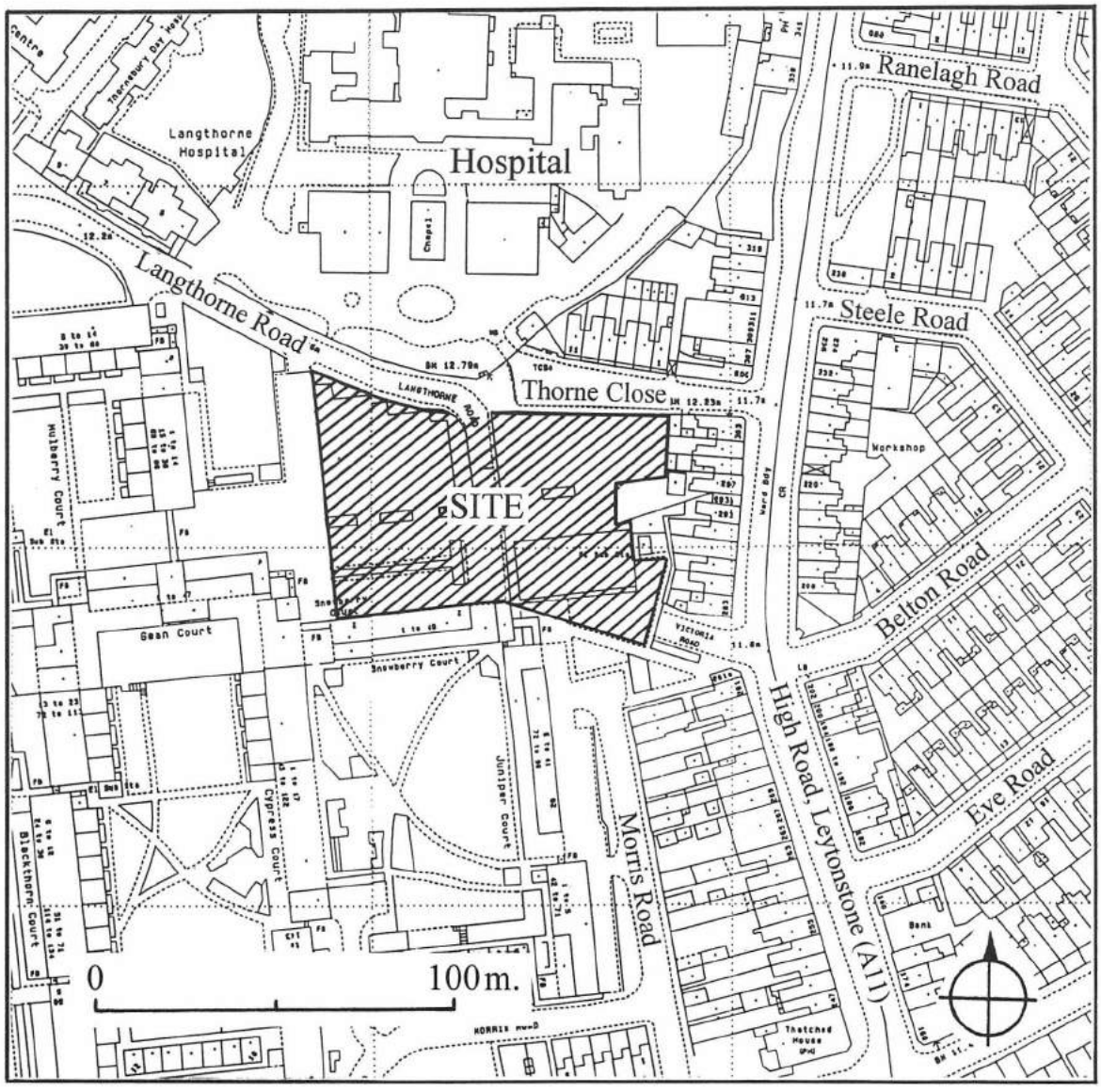


Fig. 16 Thorne Close Avenue Estate, Leytonstone: site location. © Crown copyright 87584M.

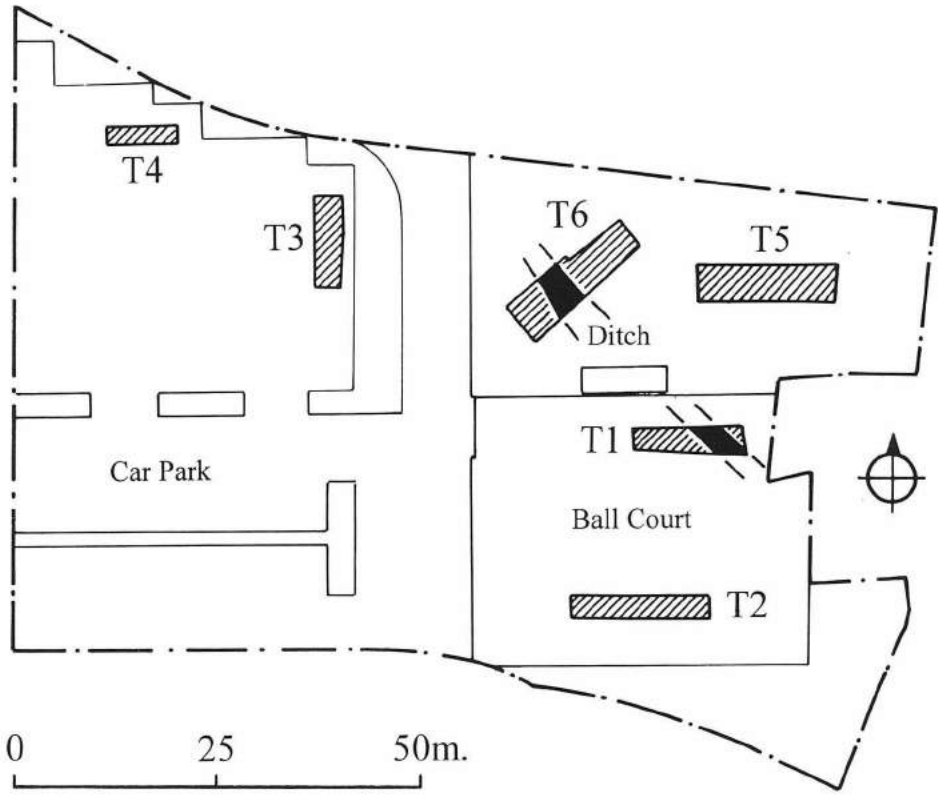


Fig. 17 Thorne Close Avenue Estate, Leytonstone: trench locations.

The 18th century

In Trench 5, the rectangular brick footings of an 18th-century building were uncovered (Fig. 19). From cartographic evidence, the house is thought to have been built between 1721 (Kennedy 1984, 18) and 1728 (Cushee 1728). The layout of the foundations of this building suggested it formed two semi-detached cottages. The houses survived as rectangular brick foundations with a central H-shaped chimney stack dividing them. The floor levels of the houses were lost with the demolition of the building. At the end of each house was an ancillary room, integral to the original building, with sunken brick floors. These rooms were interpreted as kitchens or sculleries. From this area, each house had a brick drain running south, probably towards a central drain.

As there was no indication of a timber structure built on brick footings, it seems likely that the houses were of brick construction. The bricks from the foundations were of different sizes and this suggested that possibly one or more brick manufacturers were involved (Sabel 1995). A pan-tiled roof is suggested for the building on the evidence of large quantities of tile recovered from demolition material sealing the house foundations.

The layout of the cottages suggests long, narrow front and back gardens, the width of each house. Evidence for one brick boundary wall belonging to the eastern house was uncovered. The property to the west of the houses contained a number of shallow pits which have been attributed to horticultural activity. The property adjacent to the eastern house contained the footings for a brick structure, probably an outhouse, which was largely outside the trench. To the north of the outhouse was a large, linear rectangular pit (460), over one metre deep, steep sided and extending outside the area of excavation. The steep edges suggested that a wooden lining to the pit would have been needed to stop the sides slumping. The two earliest fills of the pit had formed in waterlogged conditions as indicated by their silty matrix. These fills contained no finds, except for a wooden brush (Fig. 21.1), but environmental analysis has indicated a seed assemblage of blackberry or raspberry, strawberry, grape and plum usually associated with a cess pit (Gray-Rees 1996). The cess pit also contained two later fills with large amounts of pottery and glass with some animal bone. The pottery was analysed using estimated vessel equivalents (eves), and this showed that the main fabrics present were Tin-glazed Earthenware (TGW) (Fig. 20.15, dated early 18th century, 20.19, dated *c.*1720-40, Bristol/Lambeth?), Staffordshire Slipware (STSL)

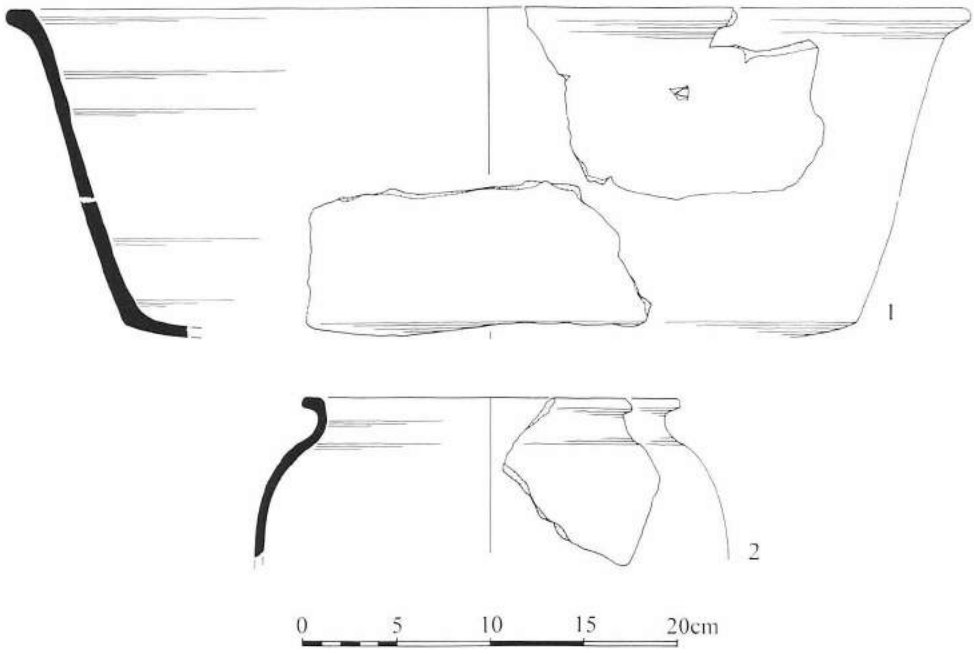


Fig. 18 Thorne Close Avenue Estate, Leytonstone: Early Medieval Sandy Shelly ware forms.

(Fig. 20.6-8, early 18th century), Post-Medieval Redware (PMR), and Staffordshire White Salt Glazed Stoneware (SWSG), in that order of frequency. Imported pottery was rare and only represented by Chinese Porcelain (CHPO) (Fig. 20.4, dated *c.*1720-40) (0.48 eves or 3.68% of the pottery). The ceramic vessels were largely complete with the main forms being firstly chamber pots, then ointment pots (Fig. 20.16-18, dated early 18th century, Lambeth), pedestal bowls, plates and cups. The presence of a large number of chamber pots further supported the interpretation that this feature was a cess pit. Functionally the pottery was primarily concerned with food consumption, then sanitary, medicinal and drinking activities. No vessels could be connected to cooking food. The glass consisted largely of mallet and transitional cylindrical wine bottles and window glass, as well as pharmaceutical or medicinal bottles, a phial and a small ten-sided beaker crudely decorated with wheel engraved flowers (Fig. 21.6, dated *c.* 1730-80). The pottery and glass dated the cess pit to between 1730 and 1750, however the pottery seems to be *c.* 1740 at its latest.

The early 19th century

Until 1845, when the two cottages were demolished, they appeared to have undergone no structural alterations; they seem to have been low-status, low-rent dwellings for farm labourers. The 1841 Leyton Parish tithe map names the owner of the plots containing the cottages as a William Wellesley, and the Leyton Parish census shows that one of the excavated cottages was occupied by a "Patrick Muldoon and others". Patrick Muldoon, an Irish immigrant, his wife Catherine and three daughters occupied the cottages from at least 1821 until the demolition of the property. Muldoon and his wife are listed as agricultural labourers by profession who only started paying rates in or a little before 1839; presumably before this they were too poor. Patrick died in 1847 and Catherine was listed in the 1861 census as an inmate of the West Ham Union Workhouse, which was located on the opposite side of Irish Lane to the cottages (Vestry House Museum). No indication of the identity of the occupiers of the other cottage within the same building has been traced and they are simply recorded as 'others' (Hanson 1996).

The property to the east of the cottages, was also owned in 1841 by Wellesley, but rented to a James Mann, and the land use described as gardens. In this area the rubbish fills of the 18th-century cess pit slumped and the surface was levelled with refuse in the early 19th century. This area continued to be used for gardening and the digging and infilling of rubbish pits. One of these refuse pits, (287) contained the rare find of a complete Blanc de Chine, Chinese Porcelain miniature seal[3], dated to *c.*1720, and bearing the family name 'Cheng' (pers. comm. Rose Kerr and Ming Wilson) (Fig. 21.4). The seal was probably intended for use as a stamp with ink; however its value was probably more as an ornament or trinket. Finds were studied from the fills of rubbish pits (241), (297), (324) and (357). The clay tobacco pipes from these pits are typologically dated to between *c.*1800-1840 while the initials of the manufacturers of the pipes ranged from *c.*1810 to 1837. The rubbish pit activity resulted in the

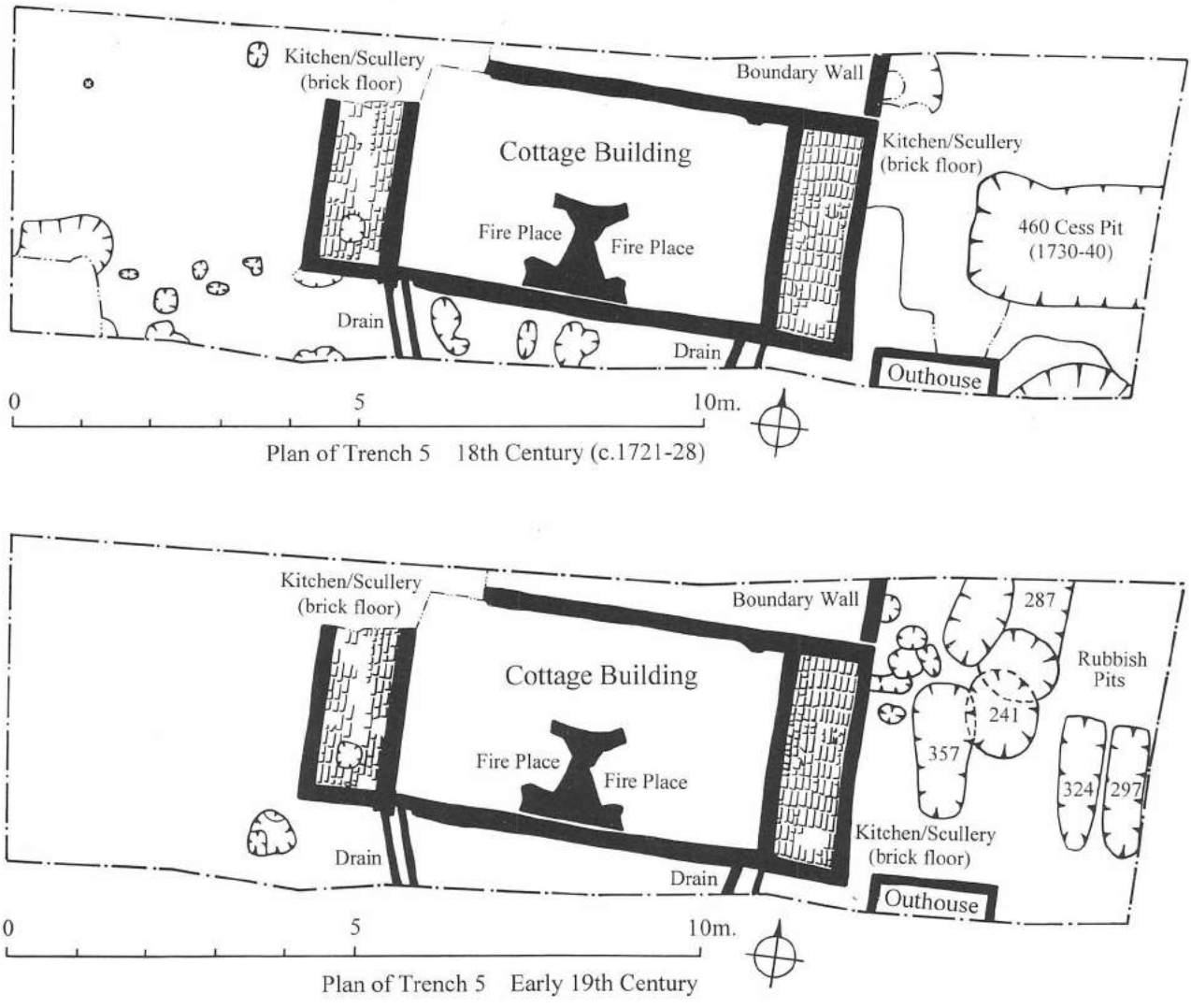


Fig. 19 Thorne Close Avenue Estate, Leytonstone: plans of 18th and early 19th-century phases.

truncation of the 18th-century cess pit fills. The pottery from the 19th-century rubbish pits showed Creamware (CREA) to be the most important ceramic, followed by Transfer Printed ware (TPW), Post-Medieval Redware (Fig. 20.5, dated late 18th century to early 19th century), Pearlware (PEAR) and London Stoneware (LONS). The main vessel forms were pedestal bowls and ordinary bowls followed by plates and jugs. Functionally the pottery was concerned primarily with tablewares for serving and eating food from and secondarily for drink serving or consumption with very few kitchen or food preparation vessels present. The glass largely consisted of cylindrical wine bottles dated to *c.*1790-1820, and a residual miniature pharmaceutical bottle. Small finds recovered from the refuse pits included a decorated copper-alloy button (Fig 21.3, dated *c.*1780-1840) from rubbish pit (324) and a furniture related back or escutcheon plate, from a drop handle assembly (Fig. 21.2, dated *c.*1820-40), came from pit (241). The finds assemblage from the 19th-century rubbish pits seems to infer a drop in social status compared to the early 18th-century finds.

Conclusions

The excavations at Thorne Close identified an agricultural landscape with plough soils dating from the 12th to 19th centuries as well as 18th-century agricultural labourers' cottages. The earliest activity on the site was the 12th-century ditch, probably a boundary ditch. Little is known archaeologically of this period in Waltham Forest, with only similar, but small quantities of Early Medieval Sandy Shelly ware as well as contemporary pottery occurring at Chingford Manor House and Knots Green, Leyton, to indicate activity of this period. Before the creation of the Haliwell Priory Estate, it was believed that there was no settlement in the area of Hollywell Down (*Essex VI*, 1973, 175). However, the large sherds of unabraded pottery may indicate that a settlement existed in the vicinity, before

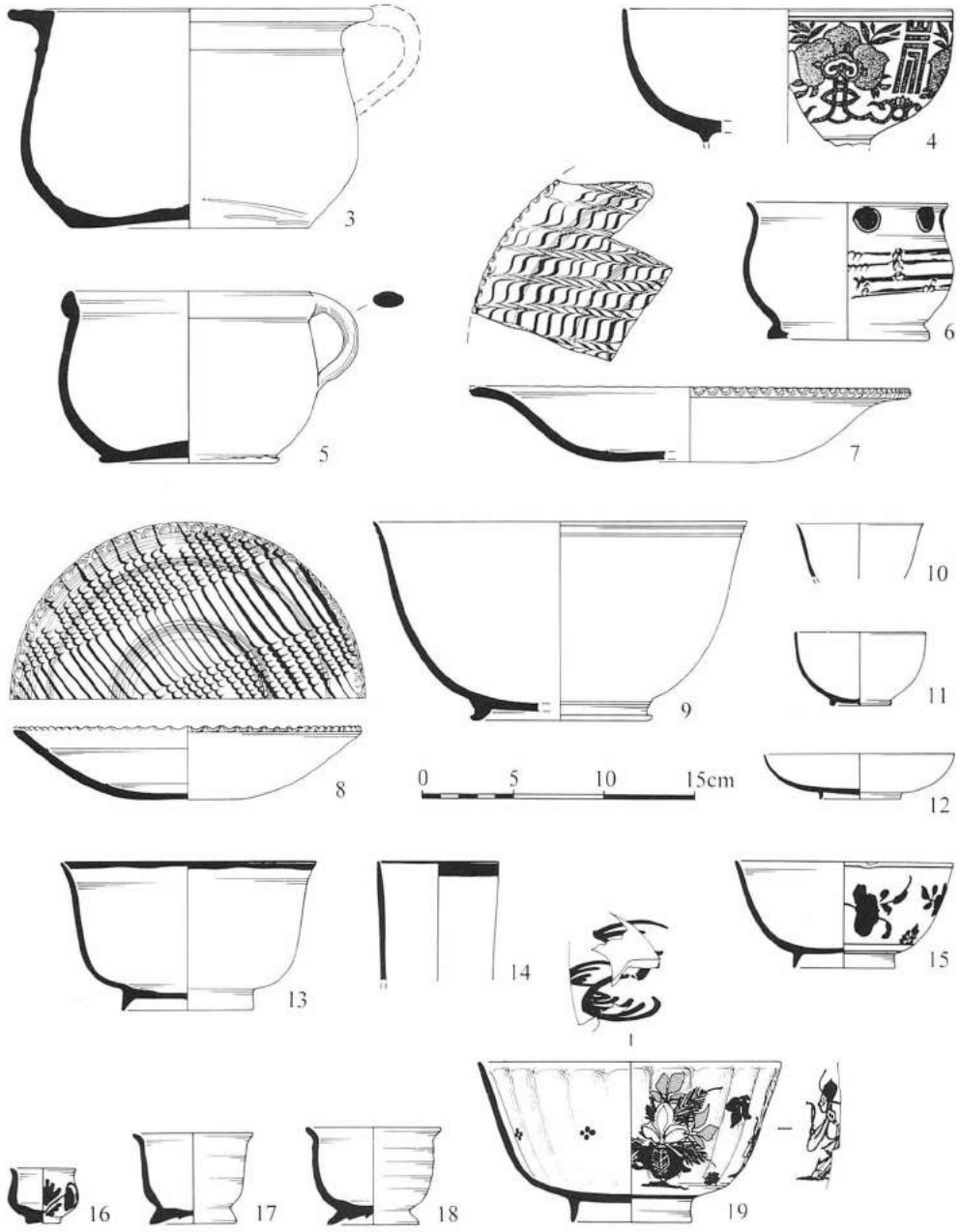


Fig. 20 Thorne Close Avenue Estate, Leytonstone: pottery. Abbreviations are explained in the text.

the establishment of the estate. Similarly the medieval pottery may indicate occupation close by. The abandonment of the ditch in the early 13th century may have been the result of reorganisation of land boundaries, as no later land use respected the alignment of the ditch as demonstrated by cartographic evidence. The pottery from the tertiary fills of the ditch seem to coincide with the formation of the Haliwell Priory estate, which may have caused reorganisation of the settlement around Leytonstone High Road.

The rubbish in the 18th-century cess pit contained an important ceramic assemblage because the pottery comes from a narrowly datable period, and is significant for the forms of ceramic wares which are poorly dated, such as the Staffordshire Slipwares. The cess pit did contain some mid to late 17th-century wares, such as Post-Medieval Black-Glazed earthenware (PMBL) and two brown glazed Border Ware (BORD B) chamber pots (Fig. 20.1, dated by Pearce [1992, 33] to mid 17th century) but essentially the pottery is largely early 18th century with the latest sherds dated to *c.*1740. Importantly, Staffordshire White Salt Glazed ware began to be manufactured in *c.*1720 and its cheaper version, Drab ware (SWSG DRAB) with its characteristic brown rims was introduced from *c.*1730, and therefore the rubbish fills of the cess pit contain early examples of these ceramics. An indication of the 18th-century social status of the people can be implied from

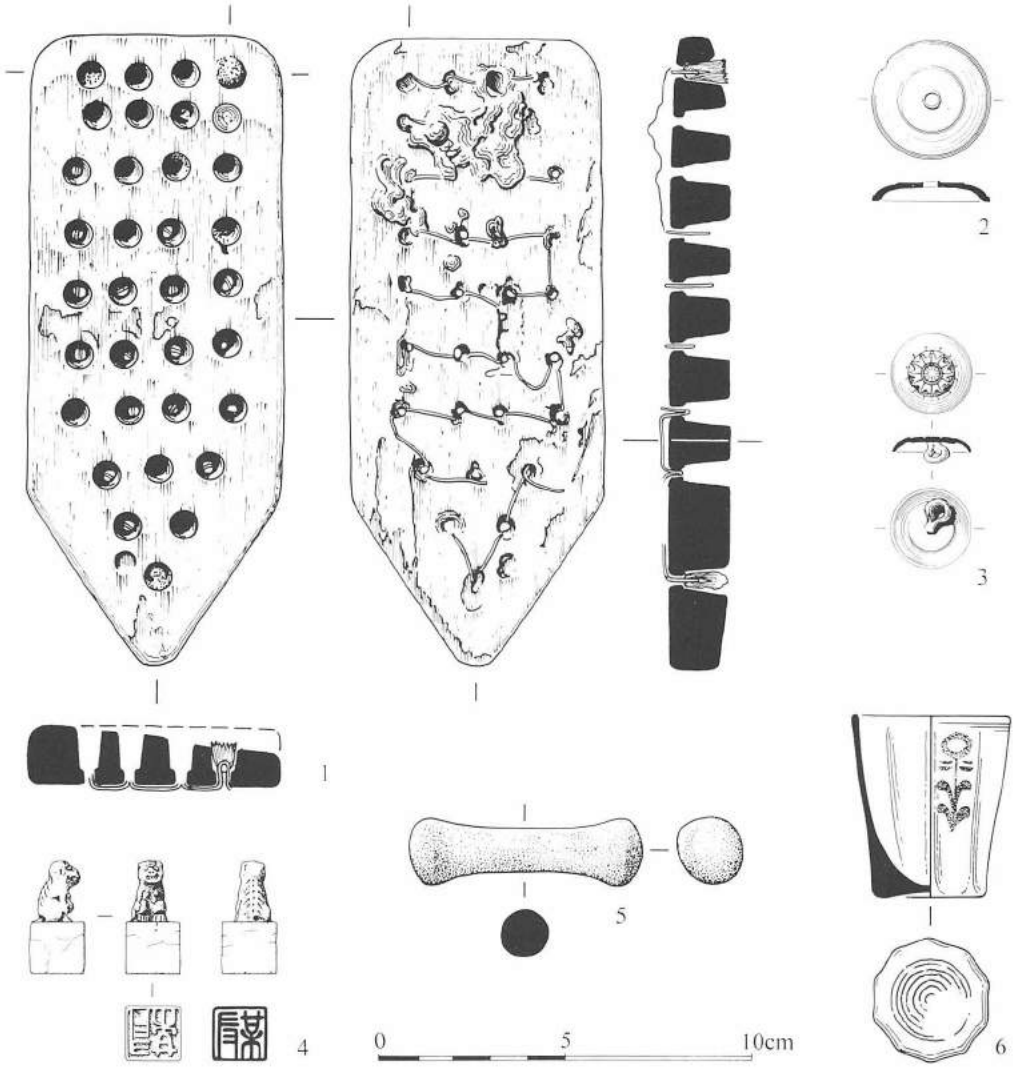


Fig. 21 Thorne Close Avenue Estate, Leytonstone: miscellaneous finds. 1; wooden brush: 2; copper-alloy escutcheon: 3; copper-alloy button: 4; Blanc de Chine, Chinese porcelain seal: 5; pipe clay hair curler: 6; 10-sided glass beaker.

the rubbish they threw into the cess pit and contemporary finds from the same property. Amongst the pottery were good quality Chinese Porcelain, including the seal, vessels associated with tea drinking and hair curlers (Fig. 21.5, dated *c.*1700), which seems to indicate a 'middle class' owner, perhaps of comfortable means.

The early 19th-century activity on the site seems to confirm the documentary evidence of a general decline in status of the area. This continued into the late 19th-century with the construction of terraced housing which coincides with the merging of the area into Leytonstone and the general suburbanisation of London. The continuation of impoverishment of the area lasted until the demolition of the terraced housing and the construction of Thorne Close Avenue housing estate in the 1960s.

Acknowledgements

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The finds and archive will be deposited in the Vestry House Museum, Walthamstow, E17; Accession No. LDPEM/ACLE/238.

Notes

1. In response to a condition on Planning Application No. 93/007,
2. The Museum of London Archaeology Service medieval and post-medieval pottery type codes have been used, except where a fabric code of the Archaeology Section, Planning Department, Essex County Council was more appropriate.
3. Documentary evidence from a sale of Chinese Porcelain in 1704, from the cargo ship The Fleet, included 200 small monkey figurines amongst the Blanc de Chine (Godden 1979, 274).

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Survey and Recording of Takeley Railway Station

by H. Cooper-Reade

Introduction

The survey and recording of Takeley railway station was carried out on behalf of the Recreational Land Management section of the Essex County Council by the County Council's Field Archaeology Group. Takeley Station is situated along the now disused section of the Bishop's Stortford, Dunmow, Braintree railway line between Braintree and Tilekiln Green. This part of the line now forms the Flitch Way, a linear park, owned and managed by the Essex County Council.

Takeley was one of a number of stations on the 18-mile branch line opened in 1869 and owned at that time by the Great Eastern Railway (GER), successor to the Eastern County Railway Company (ECR), the original backers of the scheme. Takeley station was built to serve Brewers End, Hope End Green, Puttocks End, Jacks Green and Smiths End Green, a scattered community of hamlets up to three or four miles from the station. The station masters appointed to Takeley, Dunmow, Felsted and Rayne in 1869 were provided with accommodation for themselves and their families. The substantial station buildings at Takeley included the station master's house, booking office, waiting room and lamp, and coal stores. Both the station buildings and the platform had oil lighting, the latter provided by two bracket and three wall lamps. Points and signals were controlled by a wooden signal box on the upside of the line opposite the country (east) end of the platform.

Before the first World War there were six staff employed at Takeley Station (station master, booking clerk, two porter/signal men, porter and goods porter). Soon after London and North Eastern Railway (LNER) took over the line in 1923, the post of station master was abolished and responsibility transferred to Great Dunmow. The house was still occupied at this time, perhaps by the porter-in-charge or signalman. After withdrawal of the passenger service in 1952 the porter-in-charge was retained to deal with freight and parcels traffic which continued until 1966 (Paye 1981).

The Station Buildings

General Description

Takeley station is a one- and two-storey brick building with associated outbuildings and garden (Fig. 22; Plate 5). The main building is dilapidated and currently boarded up and, although part of the range of outbuildings in the garden and one of the chimney stacks has been demolished, the building retains much of its original form and has remained largely unaltered since its use as a station building. Recent use of the building as offices has resulted in the conversion of the ladies'

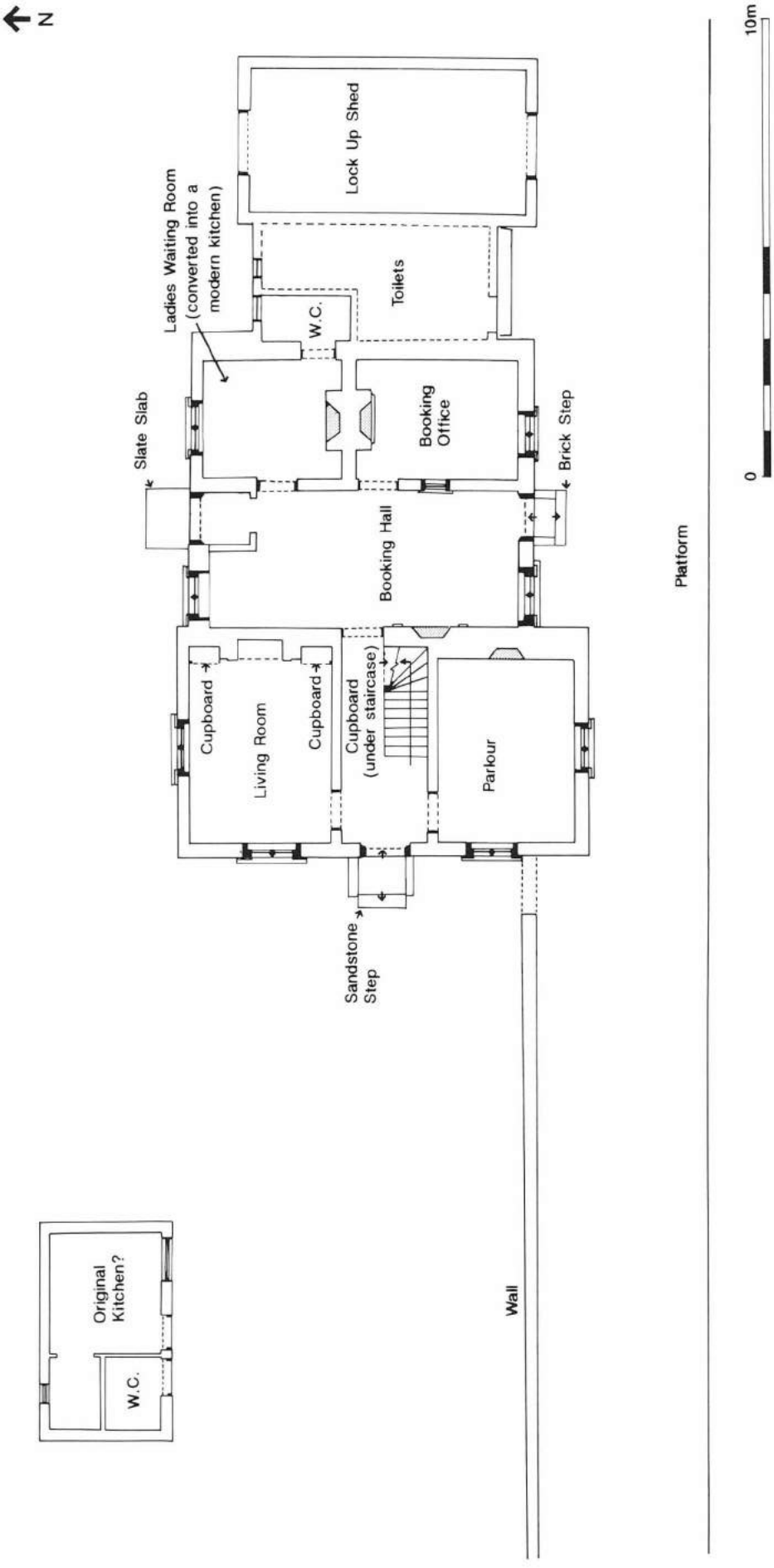


Fig. 22 Ground-floor plan of Takeley railway station.



Plate 5 Takeley railway station 1996.

waiting room into a kitchen and the addition of an internal entrance vestibule. Apart from these minor alterations, the internal layout is very much as it would have been during the lifetime of the station.

The two-storey station master's house has a parlour and sitting room on the ground floor and two bedrooms and a box room upstairs. There is no basement and so the store and kitchen (scullery) were situated in an outbuilding along with the earth closet. The station offices and public areas (booking hall/general waiting area, ladies' waiting room, ticket office) are contained in a single-storey block projecting from the living quarters. A further extension to the single storey block contains the ladies' toilet and gents' urinals. Adjacent to the toilet block is a lock-up shed. The platform wall is capped with blue semi-engineering bricks. Surviving photographs (Paye 1981) show that small shrubs and flowers were planted at the base of the platform wall.

Unlike the red brick stations of Rayne and Felsted, the buildings at Takeley are constructed in white gaults with white gault quoins laid in a Flemish bond. The same white gault bricks as used in the general construction have been used to form quoins four courses high. These are complemented on the north, west and south sides of the main building by string courses comprising two rows of slightly projecting brickwork which delineate the first and second storey. Another string course of projecting brickwork, one course high, is located just below the roof line. Around the base of the single-storey extension, the lower two courses of brickwork form a brick skirting capped with blue, semi-engineering, plinth bricks. The wall of the southern (platform) side of the single-storey extension contains a 'chequerboard' pattern of white headers half way up the wall, between the ticket office window and corner quoins.

Both the two-storey living quarters and single-storey booking hall and waiting areas have hipped roofs with a timber fascia and eaves soffit. Although some of the cast iron gutters and down pipes remain, most have since been replaced with modern plastic piping. The booking hall/general waiting area has an extended eaves canopy over the platform. This is formed by a continuation of rafters at a reduced pitch and is partly supported by three curved and scrolled timber brackets. With the exception of the lock-up shed, which has been re-roofed with modern tiles, the roofs are finished with Welsh 'blue' slates nailed directly to 4" x 2" timber rafters. A photograph of the early 1950s (reproduced in Vinter 1990) shows that the lock-up shed was originally roofed with slate as with the other station buildings. The same picture shows the small goods yard to the north of the platform and the wooden signal box on the opposite side of the track.

The main station building was well lit with large sash windows, all of the same design but with some difference in the detail of the internal panelling. There are three doors giving access to the ground floor of the main building: leading into and out of the booking hall and into the private side of the living quarters. All external doors are of four-panel, wooden construction with segmental-arched lights above the doors on the platform side of the booking hall and the western side of the living quarters. These mirror the framing of the upper window lights. The entrances to the doorways comprise stone flags set below ground level, or, in the case of the roadside doorway, a slate slab. External and internal doors are all four-panelled, with the exception of the upstairs cupboards and surviving door to bedroom (1) which are two-panelled. Doorways and windows are set in similar Portland Stone surrounds which are constructed of a series of rectangular machine-cut blocks. At ground floor level, the window surrounds have a simple, segmental arch with a centrally placed decorative 'keystone'; at first floor level the window arches are plain and undecorated.

Internally, the downstairs walls are plastered, whilst the walls on the first floor are clad with tongue and grooved panelling made of rough wooden planks onto which wallpaper was laid directly. Internal partitions are made of 4" x 2" stud frames with lath and plaster finish. Rooms within the station were heated by coal fires and lit, originally by oil lamps, later by electric lighting.

The western frontage of the two-storey living quarters overlooks the station master's garden and contains the entrance to the private quarters. The gardens are overgrown and little remains of the original boundary fencing (metal railings) which has been largely replaced by changes to the road layout and planting associated with the adjacent housing development.

The Public Areas and Station Offices

The public entrance to the station leads into the booking hall/general waiting area and doors from the booking hall lead to the ladies' waiting room, ticket office, platform and private living quarters. The booking hall contains a fire place, now blocked, and would presumably have had some form of bench seating for the use of waiting passengers. As one of the main public rooms, the booking hall was ornately decorated and contains a moulded cornice of fibrous plaster. The moulding is based on traditional egg and dart motifs and would have been quickly applied from mass-produced sections (Barrett and Phillips 1993). The deep, beaded skirting boards present in all the public rooms are typically Victorian in style.

Leading off the booking hall/general waiting area, to the east of the main entrance, a wooden four-panelled door leads to a small room which would originally have been designated as the ladies' waiting room. A further door leads from this room to the ladies' toilets. As in the booking hall, the ladies' waiting room contains a fireplace, now blocked, and has a deep skirting board and decorative cornice. The latter is of a slightly different style to that in the booking hall and is based on a cable motif.

The booking office is entered via a four-panelled wooden door off the main booking hall/general waiting area. As there was no public access to the ticket office there was no need for the room to be finished with elaborate decorative detail. The cornice is of a simple astragal moulding and the skirting board is shallower than that seen in the booking hall and ladies' waiting room. The room contains a fireplace, now boarded up, and there would have been an in-built storage cabinet with drawers and cupboards serving as a counter for the sale of tickets (Senatore 1979).

The toilets form a flat-roofed extension between the single-storey waiting room/ticket office area and the lock-up shed. The toilet block is divided into a ladies' toilet with a small external window in the northern wall and a gents' urinal to the south. Access to the ladies' toilet is via the ladies' waiting room, to the gents' urinal it is via a doorway on the platform side of the station. Originally, the gents' urinal would have comprised simple brick partitions with no roof. As with other stations along the Braintree-Dunmow-Bishops Stortford line, the gents' urinal was later roofed over and a door, with small light above, was added to the entrance way.

Most branch line stations had some form of lock-up shed for the storage of goods and parcels. The lock-up shed at Takeley is situated to the east of the main station buildings adjacent to the toilet block. The shed is of the same construction as the rest of the station buildings but has none of the decorative detail. Although re-roofed with modern tiles, the lock-up shed was originally finished with similar blue slate tiles to those currently seen on the other station buildings (Vintner 1990). Both gable ends of the lock-up shed (station entrance and platform side) contain a double door of wooden plank construction. Each doorway is capped with a segmental brick arch constructed with axed voussoirs.

The lock-up shed would have been used to store parcels and other light goods, the double doors allowing better access for loading and unloading. Valuables would have been stored in the safe which is still in its original position.

Living Quarters

Access into the ground-floor corridor of the living quarters is either via the booking hall or the external door in the western wall of the building. The corridor is centrally placed with the parlour to one side and the sitting room to the other and the stairs rising opposite the external door. Storage space is provided by an understairs cupboard.

The parlour is situated on the south side of the living quarters and has windows overlooking the platform and private gardens. The decorative cornice is in the

same style as that used in the ladies' waiting room. As with the public rooms, the parlour, the most important of the private rooms, has a wide, beaded skirting board. An additional decorative detail, not seen elsewhere, is the dado rail. The fireplace is currently boarded up.

The sitting room is situated on the north side of the living quarters and has windows overlooking the station approach and private gardens. The use of this room as the family sitting room is evidenced by the narrow skirting board, absence of dado rail, and the fireplace with fitted cupboards either side. The fire place in this room is larger and would once have contained a range. It has a brown-painted, Portland Stone surround of similar construction to the external door and window surrounds. The fitted cupboards in the recesses either side of the fireplace are a typical Victorian feature. Both cupboards, which were once lined with patterned wallpaper, contain shelves and are lockable.

Access to the first floor is via closed riser stairs with a closed string. The stairs are in a state of disrepair with the bottom newel, hand rail and balusters missing. In common with other branch line houses, there is a small skylight above the landing area. The skylight has a boarded surround where the lightwell passes through the attic void and is currently covered with a corrugated iron sheet. The material of the original light is unclear from surviving pictorial evidence, although it was not made of glass

Access to the front bedroom is via a brown-painted, two-panelled door. The wooden tongue and grooved panel cladding of the outside wall can clearly be seen in this room. It is likely that this was the master bedroom as it contained storage cupboards in the recess either side of the fire place. The back bedroom is the same size as the front bedroom but has no fitted cupboards, and the door has since been removed.

Opposite the top of the stairs, on the other side of the landing area, is a step up into small box room, the function of which is unclear; it is too small to have contained a bed and does not have a door. A row of coat pegs similar to those in the downstairs corridor, suggest that this room may have served as an upstairs cloakroom / storage room.

Outbuildings and Garden

To the west of the living quarters, the garden area contains a single-storey outbuilding constructed of white gaults and with a simple ridge roof of 'blue' Welsh slates. The surviving windows and doors are of simple wooden-framed construction with plain segmental arches constructed with axed voussoirs. This building originally contained the kitchen (scullery), store and earth closet used by the station master and his family. There is, however, no surviving evidence of a stone sink or a chimney which would have served a stove. The outbuildings at Takeley are very dilapidated and it is possible that further rooms would originally have existed to the east. The equivalent outbuildings at Stoke-by-Clare station, for instance, comprise a domestic coal store, earth closet, store, kitchen (with chimney) and larder (Senatore 1979).

The garden area is separated from the main building by a path leading alongside the living quarters. Although no longer extant, a wicket gate would have closed off the garden area from the road in front of the station (Paye 1981, 93). The boundaries of the garden are formed by the road embankment to the west and the platform wall to the south. There are some corrugated iron sheds to the rear of the garden which although unlikely part of the original construction, were probably erected during the lifetime of the station.

The garden is very overgrown and there is little evidence of the flower beds and vegetable plot that it is likely to have contained.

Discussion

In the 19th century a position with the railway company meant security in an area where there was little industry except agriculture. The accommodation provided for the station master and his family would have been considered spacious and well appointed and the station master would have had some standing in the local village community.

Takeley Station is built to the same design as other contemporary ECR/GER stations, both along the Bishop's Stortford, Dunmow and Braintree branch and elsewhere. The original architect is not known, although Robert Sinclair who surveyed the route is known to have designed some stations including Ipswich, built in 1860 (Biddle and Nook 1983). It is more probable, however, that the designs for the small branch line stations such as Takeley were a product of the architects' department and could not be attributed to a single person. Stations using the same basic design and layout included Rayne, Felsted, Sturmer, Blake Hall and North Weald in Essex, Welnetham, Finningham and Stoke-by-Clare in Suffolk, and Pampisford in Cambridgeshire (Senatore 1979). Other stations such as Dunmow and Braintree, both slightly larger and with additional buildings, were also built to the same design. Most ECR/GER station buildings were constructed in red brick with white gault quoins. The only other similar station building made of white gault bricks was the crossing keeper's lodge at Great Easton. The latter was built to the standard design for a station master's house but with a slight variation in the number and position of windows.

By using a single plan for all buildings the branch line took on a corporate identity, but more importantly, the stations could be built quickly and efficiently, constructed to a known plan and using materials bought in bulk. Indeed, although the stations were designed to show the railway company off in the best possible light, the needs of quick, efficient construction, probably outweighed any sense of creating a sin-

gle corporate identity through the architecture of the stations. The cost of building a railway was high and meant a vast investment from shareholders. The ECR/GER was not a wealthy company and would have been keen to keep costs as low as possible and get a return on investment as quickly as possible. This meant that the building work had to take place economically using readily available materials to a standard design that the contractors could repeat easily as they progressed along the line. Throughout the Victorian period the ECR/GER built stations in different architectural styles, and although prestigious main line stations were often built to individual design, contemporary stations along the branch routes were usually built to the same pattern (*c.f.* Biddle and Nook 1983).

The design of Takeley station and other similar station buildings shows elements of a simplified Italianate style. By the 1860s, this style was perhaps giving way to the Gothic in more fashionable circles, but it remained popular in the mass market and may have been considered inappropriate for what was a basically functional building. Indeed during the 1860s, Italianate was the dominant style of the GER architects' office and it can be seen in a more developed form at Ipswich station (1860). Elements of Italianate style seen at Takeley Station include the string courses, overhanging platform canopy, shallow-pitched, hipped roof and stone window surrounds. The latter are perhaps slightly understated and austere (the arch on a true Italianate window would have been fully rounded) but the use of pre-fabricated, mass produced stone blocks meant that there was less possibility for more ornate, carved decoration.

The architecture of the station reflects the functional nature of the buildings. After all, as letters of complaint to the railway indicate, local people were not usually concerned with platform facilities; rather they were more concerned with the movement of goods and other practical considerations such as the feeding and watering of the horse transport used to get to the station. The room layout at the station was simple and provided sufficient space for practical needs without undue over elaboration. All the functions of the station could be carried out from the ticket office; there were adequate, warm waiting facilities for passengers, and sufficient, secure storage space for small goods and parcels. There was no need for a platform canopy at a small branch line station which carried few passengers; hence a simple extension of the roof eaves was adequate. However, small details such as the scrolled canopy supports and simple use of different coloured bricks all add to the impression of grandeur and ornateness. The station master's house looked large and impressive from the outside but was a simple two-up, two-down structure with the main domestic facilities (scullery, store, earth closet) located outside.

A hierarchy of rooms within the station building can be built up from the degree of ostentation in the decoration. The most important rooms were those seen by the public, in particular the main booking hall/general waiting area. Fireplaces were provided in all the waiting areas but also in the ticket office and all the main rooms of the domestic quarters. As with passengers, the comfort of staff was a concern, although probably to a lesser degree. Although the fires have long since been removed it is likely that they were basically functional but with varying degrees of elaboration mirroring the room decoration. Deep skirting boards and decorative cornices were present in the public rooms and the private parlour. The most elaborate cornice was reserved for the main booking hall which would have served as the main public reception area; a lesser degree of decoration is present in the ladies' waiting room which although important might have been kept locked and would not have been visible to all. A decorative cornice of the same design to that in the ladies' waiting room is present in the station master's parlour. It is perhaps telling that the station master was not afforded the grandest decoration but his position and need for a proper parlour was recognised. Interestingly the station master's hallway (the main entrance into the private quarters) is very plainly decorated. The station master's private guests would not have had a first impression of ostentatious show as in many houses (although the stair balusters may have been fairly elaborate). Important official guests, on the other hand, who may have been invited into the station master's private parlour would no doubt have entered via the more ornate booking hall. Upstairs the plastered internal walls gave way to cheap wooden cladding.

Much has been written about the general history of the railways and most branch lines and local railway networks are the subject of easily accessible, well-researched local histories (Paye 1981; Joby 1985; Gordon 1968). There is also a large literature on the larger station buildings, many of which are listed (Biddle and Nook 1993). However, there are few readily accessible, extant documentary sources (primary and secondary) relating to the ordinary architecture of the smaller branch line stations. Many such buildings have been demolished and although the pictorial evidence is generally good, the principal aim of many of the photographs was to show the workings of the station or a particular steam locomotive, rather than the layout and detail of the station buildings. The smaller, branch line station buildings reflect not only the attitudes and building styles of the time, but also the railway companies' perceptions of their staff and passengers. Takeley Station is a good example of a largely unchanged Victorian station and it becomes particularly relevant when it is studied in relation to other stations along the route, all of which were built to a similar design.

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The Essex place-names project

by James Kemble

The passage of time and the familiarity of usage have often conspired to obscure the origins of place names. Nevertheless, place-name study has attracted the interest of historians, philologists and geographers. For the latter, the interest derives from the fact that many names derive from a description of their physical context, as seen by early settlers (Gelling 1984). Earliest names contain linguistic elements of rivers, hills and forests, representing pre-Roman, Celtic survival, later assimilated into English. The failure of Anglo-Saxons to recognise the significance of the existing Celtic name has led to tautologies such as 'River Avon' and 'Bredon.' In Essex, 'River Colne' may be just such a tautology, but the meaning of Celtic names is often difficult to interpret in the absence of other information.

Others derive from the name of a leader or chief, often suffixed with *-ham* or *-tun*, implying a settlement. Thus the names of large cities, such as Birmingham or Southampton, betray their humble origins.

Place names including the elements *walh* or *cumbre* (serf and foreigner), such as Walsall or Cumberland are a reference by Anglo-Saxon settlers to the settlements of Celts. For Essex, considered to be strongly under Saxon and, later, Viking influence, it is of interest that names such as Saffron Walden and Cumberton (in Chrishall) appear, implying Celtic persistence in eastern England, and denying the implication that that the Celtic population was entirely pushed far to the west. The paucity of Scandinavian names in Essex poses questions about Viking influence in the county despite documentary evidence that it was part of the Danelaw. Place-name studies have been used to map spheres of influence in the Migration period, but more needs to be done: Essex offers an opportunity for such research.

These kinds of study are increasingly being reinforced or balanced by a consideration of archaeological evidence of settlement. The distribution of Saxon cemeteries in southern and eastern England coincides so poorly with the occurrence of *-ingas* place names, that the implication that they recorded 5th and 6th-century settlement was re-appraised and eventually largely rejected. It is, however, unreasonable to tar all *ingas* names with the same brush, but to distinguish those with a topographical prefix (such as Nazeing) from those with a personal name prefix (such as Roding). A start has been made on such analysis (Kuurman 1974; Gelling 1976), but requires amplification.

That certain place names may indicate archaeological deposits is well established. Names with *dun* and *bury* may reveal ancient defences, but there are pitfalls; the element *bury* may conceal *beorg*, *burh* or *byrig*, and consideration of the geography may be needed to distinguish the meaning of a town from a hill fort from a tumulus or a manor house. Bedemans Berg, the site of a hermit's cell near Mill Green, Ingatestone, may refer to a barrow. Essex has a scatter of pagan deity names, such as Thundersley, Thurstable and Thunderlow in Bulmer, which might be expected to have a Saxon or Viking origin. In Harrow (Middlesex) and Wednesbury (Staffordshire), archaeological excavation has shown that the Christian church was preceded by a pagan temple. Sunnedon in Coggeshall may be worth an investigation.

As a sub-class of place names, field names are researched both for their own merit and as survivals of settlements now lost. Such is the conservatism of agricultural communities that field names may persist long after the origin of the name is forgotten. Jenny Cricks Field in Hampshire, when field walked, revealed a scatter of 14th-century tile. Further investigation showed it was the site of St Gertrude's chapel, for which documentary evidence was known, but whose location had been lost (Kemble 1994). The element 'cricks' was not immediately associated with the Old English for church, *cirice*.

Agricultural practices such as the growing of beans, pilled oats and flax, and temporary enclosure are contained in field names such as Balambs, Pellet Royd, Linland (Colchester, 13th century) and Hinnox. Chatter Holt and Jointry refer to legalities of holding by written charter (as opposed to seisin) and entailed property. Industry is preserved in Glasswrights Green (Greensted), Tile Kiln (Lexden), Pottersland (Mile End) and Ropewalk Field (Wivenhoe).

Topographical features are contained in Mythe Close (at a junction of streams), The Hanger (from Old English *hangra*, wood on a slope) and Whoms (from Old Norse *hvammr*, valley or marsh). Only exploration of the field site will determine the exact meaning of the word for which early settlers had a much wider topographical vocabulary than we now possess.

Structure of the project

The Essex place-names survey, begun at the end of 1995, was conceived as a county-wide research project for the recording of place names from historic documents such as estate maps, sales particulars and deeds. Additionally, it is a stimulus for local field investigation of place names which might indicate sites of archaeological or historical interest. Thus two classes of researchers were needed, those whose main interest was documents and those who enjoyed walking, either in the countryside, or in towns and villages. The unit of recording is the parish, acknowledging that civil parish boundaries were not necessarily identical with previous ecclesiastical ones.

The response to publicity in the county and national press, society journals and newsletters was immediate. Volunteer recorders started investigating 10% of the county's parishes within 3 months, nearly 20% within 6 months, and 25% within nine. Each inquiry was answered with an explanatory letter and a set of recording forms, with the suggestion that the Tithe Award be tackled first.

A few months after the start, the Essex Society for Archaeology and History formally adopted the project, and provided a small grant. The active support of the County Archaeologist, the County Archivist and VCH Essex from the beginning was crucial, and the personal interest of the President of the English Place Names Society provided further valuable publicity.

From the outset, the project was designed to achieve a compilation of place names in the context of their geography, chronology, ownership, tenancy and land-use. Previous work at the turn of the 19th century (Waller 1895, 1898, 1900, 1903 and 1906) had published lists of names by parish, but little or no further analysis had been done. Reaney's (1935) work remains a valuable example of the early approach of the English Place Name Society's publications, but leaves scope both for updating existing information and adding new names.

In addition to compilation, the publication of analysis is a major objective. To achieve this, funding is being sought for computerisation of data; the scope of analytical studies is large, including linguistics, industrial practices, geography, archaeology and land-tenure.

To achieve consistency of recording, a Co-ordinating Committee carried out a pilot documentary and field study of one parish (Cressing) and produced a set of recording forms. These were designed for recording from the Tithe Award, estate maps, court and manor rolls, leases, rentals, surveys and valuations, sales catalogues, deeds and for field notes.

A few researchers with specialist knowledge committed themselves to study particular classes of early document; these recorders covered several parishes. The County Archaeology Section provided advice on the design of a computer database, enabling a variety of analyses of input data.

The pilot survey

The choice of Cressing parish as a test-bed was a fortunate one. It has an extensive range of historical documents, many of which have been transcribed, extending back to the medieval period. At its centre is the area of the estate of the Knights Templar, the historic farm buildings which are now owned by Essex County Council, and which are being used as a teaching resource. Its presence has meant that residents are aware of the historic importance of the area and are sympathetic to reasonable requests for access to property.

Draft recording forms were tested against documents and field survey, being adapted until a final format was agreed. It was apparent that no single format could anticipate every individual peculiarity and that a degree of compromise was inevitable. Such compromise may lead to loss of some potentially significant information. Estates that do not respect parish boundaries will appear in more than one parish record. Inconsistency of spelling in older documents could lead to loss of recognition of the same owner, tenant or holding unless the analyst uses the database sensitively.

The field survey appealed to a different group of volunteers (though some were involved in document research as well). Local knowledge of the parish, its geography and residents was an asset. Some researchers found themselves in parts of their parish they had not previously explored, though resident for many years! Contact with farmers, tenants, and older residents with long memories were a bonus. Landscape features were re-assessed. A roadside ditch (with adjacent bank) was no longer for drainage (it rarely seemed to contain water anyway), but a medieval parish boundary marker. A tree-topped mound beside a field path ceased to be just a spot to be avoided because of nettles, but the site of an 18th-century mill.

The future

At the time of writing, the project is still at the stage of data collection. A start has been made at inputting data from the recording forms on to the database. Analysis of this information will be possible at many levels. Local groups may find it useful for generating articles for parish magazines and publications for local societies. At a county level, undergraduate and graduate students may use the data as raw material for all kinds of study. The project will also reveal archaeological sites not currently on the county's Sites and

Monuments Record. At a national level, the English Place Names Society has expressed an interest in working with the project, in recognition of the fact that the 1935 Essex volume in their series is now in need of re-appraisal.

This article presents a summary of the early stages of what will be a long-term project; it is hoped that future issues of *Essex Archaeology and History* will carry reports on its results.

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Book reviews

The Archaeology of Essex Proceedings of the Writtle Conference, Owen Bedwin (ed.), Chelmsford: Essex County Council, (1996) 232 pages, £21.

This volume represents the published proceedings of the 'Archaeology of Essex Conference' held in 1993 at Writtle College. The conference was organised by the Essex County Council, Archaeology Section as a follow-up to the 1978 conference on the archaeology of Essex, also published in 1980 as *Archaeology in Essex to 1500AD*. It includes 21 contributions from 20 authors covering the Palaeolithic to the post-medieval period which are arranged in a chronological order.

The proceedings open with a paper by John Wymer on the Palaeolithic period. This includes an interesting and informative overview of Pleistocene chronology followed by a consideration of the important sequence of terraces of the Lower Thames, and the internationally important Palaeolithic type-site at Clacton. Roger Jacobi then provides an update of his contribution to the 1978 conference proceedings in which he provides a clear and informative summary of the current thinking on the Upper Palaeolithic and Mesolithic periods. Robin Holgate's paper on the Neolithic and early Bronze Age emphasises the considerable increase in knowledge since 1978 and presents a fresh account of the period. The article is divided into three sections; a description of the environment and coastal changes; a review of the monuments; and a look at the evidence for domestic sites and finds, especially flint and stonework. Ideas are also presented on the social and economic processes which may have influenced the distribution of the sites. The article includes a clear and informative series of distribution maps to accompany the text.

There then follow two papers on the middle and later Bronze Age. Nigel Brown provides an review of the period including an up-to-date summary of the evidence. Of particular value to archaeologists working on the period is the simple but very informative illustration on fig. 2 of the chronological development of pottery styles in Essex. This is followed by a review of the late Bronze Age by a leading thinker on the period, Professor Richard Bradley, who looks at some of the changes in approaches to the period over the past 15 years. As usual, this author's contribution is as thought provoking as it is lucid.

The paper by Paul Sealey on the Iron Age follows a similar format to the preceding papers, providing a chronological review of the period; it also includes an interesting section on the evidence for overseas trade. Next, Philip Crummy provides a short review of archaeological work carried out in Colchester since the 1978 conference together with a bibliography of the numerous publications which have appeared since then.

The Roman period is covered by two separate articles; Nick Wickenden provides an update on Roman small towns since the 1978 conference, including religion, death and burial, town defences and industry. There is also a valuable section on the evidence for the Roman military influence on urbanism. Chris Going follows with the Roman countryside, including roads, villas and farmsteads, the wider landscape and burials. Sections on 'the development of the rural landscape' and 'the end of Roman Essex' also brings together evidence from coins, excavation and the environment and present a persuasive view of the growth and decline of Roman Essex.

Moving onto the Anglo-Saxon period, Sue Tyler's reviews the evidence including current thinking on the important Mucking and Springfield Lyons sites. Stephen Rippon then brings together for the first time archaeological, topographical, place name and historical evidence to present a coherent view of the structure of the estates and Royal manors in Essex from 700 to 1066. This is an important piece of work which should inform thinking throughout the region. A similar approach is also adopted by Jennifer Ward for the post-conquest period, and includes subjects such as the development of the estate pattern, the Church, the growth of markets and towns and the growth in the medieval population.

Two papers then follow which look at different types of evidence for the medieval period. D. F. Stenning considers the evidence for medieval standing buildings, particularly the distribution of the most significant types of timber-framed buildings and the factors that influenced the styles of building. Janet Smith then provides an introduction to the sources of information for medieval archaeology within the Essex County Record Office. The article is aimed primarily at archaeological researchers and provides valuable advice on the advantages and disadvantages of using the wide variety of sources available.

The post-medieval period is covered by Paul Everson who provides a summary of some of the key developments in post-medieval Essex, and details of some of the highlights for Essex's post-medieval heritage which have been surveyed by the RCHME,

including the Napoleonic defences at Chelmsford and the Waltham Abbey Royal Gunpowder works.

This is followed by two thematic papers. John Boyes reviews the evidence for industrial archaeology, and includes sections on transport, the power, mining and manufacturing industries and public utilities. Peter Murphy then provides an update on environmental archaeology. The evidence is considered period by period, and includes a wealth of new information from excavations and sampling programmes. Amongst other things, the value of this evidence for understanding coastal change in Essex is clearly demonstrated and Table 1 provides a clear summary of the chronology of the various environmental processes.

Next, as a complement to Janet Smith's article on the ERO, Paul Gilman provides a summary of the history and development of the Essex Sites and Monuments Record. This includes an important summary of the development of the national network of SMRs, a guide to using the SMR as a research tool, and an outline of current enhancement projects for the SMR including surveys of WWII defences and industrial archaeology.

Finally, there are three articles which cover different aspects of the history and development of archaeology as a discipline in Essex. Nick Wickenden provides an account of the growth, achievements and decline of the Chelmsford Excavation Committee, Warwick Rodwell provides an authoritative review of the development of fieldwork in Essex since 1945 and David Buckley gives an account of the establishment and development of the ECC Archaeology Section, and its current wide-ranging roles and responsibilities. Last but not least, the index to the volume by Peter Gunn is an impressive piece of work which is an invaluable quick reference index to the archaeology of Essex.

There are several general points which can be made about the proceedings. There is a consistent emphasis on the increase in knowledge and understanding of the archaeology of Essex over the past 15 years provided by new discoveries and research. Secondly, although most of the papers present a review of current knowledge, the authors clearly also were given a remit to look to the future and this has resulted in forward-looking approach to most of the papers. In comparison with the 1980 volume, the assessment of future research priorities is also more focussed.

In summary, the volume is impressive in the range of subjects and periods covered, including several which were not included in the 1980 volume such as post-medieval and industrial archaeology. The editor is also to be congratulated in assembling a series of authors who are either acknowledged local authorities or figures of national repute in their subject. This has resulted in a volume which is of a consistently very high quality in terms of academic content, production and readability. The logical progression of the chapters and the consistency of style and production throughout, also gives the volume coherence and makes it accessible to the specialist and lay reader alike. On the down side, I would have liked to have seen more information on recent work on medieval and post-medieval towns, but this only a minor quibble and I am sure the volume will become essential reading for all local historians and archaeologists in Essex.

Stewart Bryant

City of Victory: the story of Colchester – Britain's first Roman town by Philip Crummy, Colchester Archaeological Trust (1997) 160 pages, £14.95 hardback, £9.95 paperback.

To many people, the name of Philip Crummy is synonymous with the archaeology of Roman Colchester. He has been working there since 1971, for most of that time as director of the Colchester Archaeological Trust, and he and his colleagues have been responsible for many remarkable discoveries in and around the town over the past 25 years.

Much of the Trust's work has been published in a series of scholarly monographs, but *City of Victory* is a popular synthesis of the development of Roman Colchester from its Late Iron Age predecessor, with a summary of the rather scanty evidence for Anglo-Saxon occupation, and a brief account of the medieval town.

The story starts with the Late Iron Age landscape, dominated locally by the impressive dykes, which defended the area of *Camulodunum*, the tribal capital. The significance of this derives not so much from settlement evidence, or even from the dyke system itself (the most extensive in the country), but from a series of extraordinarily rich burials, interpreted as those of the Late Iron Age aristocracy. The Lexden tumulus, excavated in rather unmethodical fashion in 1924, was the first of these to be found, and contained, among other things, a bronze mirror, bronze figurines, chain mail and a leather jerkin. This discovery is brought to life by a dramatic reconstruction of how the original burial might have looked. More recently, in a gravel pit at Stanway, the remains of 4 large wooden mortuary chambers were found, exciting a considerable degree of both local and national publicity. The 'secondary' burials at this site have also been spectacular, including the remains of a remarkable wooden game board.

A chapter on Boudica's rebellion – 'The British revenge' – then follows. This is a gripping tale by any standards, using the unique advantage of the evidence from Colchester's well preserved destruction levels, which resulted from the burning of the town.

In the aftermath of the rebellion, the town was totally rebuilt, a process likened to the rebuilding of London after the Great Fire of 1666; defensive masonry walls were also added. Colchester was the first town in Roman Britain to be thus equipped, and furthermore the Late Iron Age dyke system was augmented

with the building of an extra earthwork, known as Gryme's dyke.

Subsequently, in the period A.D. 150 to 200, the town wall was reinforced with an earthen bank behind the wall. Much of this bank seems to have been made up of debris from the demolition of houses and other structures, implying much rebuilding within the town at this time. Certainly, the excavated evidence points to the second half of the second century as a time of large, well-appointed masonry houses, some of which would have had mosaic floors.

In the third century, in common with many other towns in Roman Britain, there is evidence of decline, with farming (or at least horticultural activity) within the town walls. Relatively little new building seems to have taken place, compared with the first and second centuries.

In the fourth century, there was a flourishing Christian community, centred on the church at Butt Road, celebrated in the Guinness Book of Records as the earliest church in Britain. Associated with the church were two cemeteries. One of these, with 59 graves aligned north – south, was presumably pagan, but the second, with *c.*600 graves aligned east – west, was Christian. Most of these latter were coffin burials, with relatively few grave goods.

Archaeological evidence for the end of Roman Colchester is limited and difficult to interpret. The town was not deserted in the fifth century, though the population was small, and after A.D. 409 was no longer obedient to the Roman rule of law. Population levels remained low until the arrival of the Normans so the town is likely to have had the appearance of a small village for a few hundred years. The book ends with a chapter 'New beginnings', which looks at the medieval street pattern and some key buildings, which have formed much of the physical framework for the rise of the modern town.

If the reviewer may be permitted one small gripe, it is that the colour in some of the reproductions is slightly garish; light green tones especially have suffered. Notwithstanding this, *City of Victory* is a model of how to present complex archaeological discoveries and interpretation to a general audience; the reconstructions by Peter Froste are excellent and contribute enormously to the overall impact of the volume. It is extremely good value for money, and I cannot think of a better way of enthusing the younger generation about archaeology than giving them the chance to read it.

Owen Bedwin

Essex 'full of profitable thinges': Essays presented to Sir John Ruggles-Brise, Kenneth Neale (ed.), Leopard's Head Press (1996) xxxvii + 465 pages, ISBN 0 904920 36 4, £14.50

This collection, the largest of the three edited by Kenneth Neale, is 'full of profitable thinges', but, unfortunately, is to some extent marred by misprints and the variable quality of illustrations. Sir John's impact at so many points on Essex life and institutions is reflected in essays on Chelmsford Cathedral, the University of Essex, Essex family history, Finchingfield and Spains Hall. The late F.G. Emmison stresses the importance of the early detailed Finchingfield vestry minutes, while Victor Gray provides a sensitive and humourous account of the creation of the Finchingfield icon. Alan Jones' essay on Eliza Vaughan (1863-1949) is delightfully illustrated by her own sketches.

Some essays provide useful summaries of the growth of institutions, such as the Cathedral (John Moses). Michael Sommerlad shows how Essex differs from other new universities as a place noted for certain fields of study, such as the physical sciences, reflecting the practical importance of these subjects to local industries. Essex is at once the most internationally-minded university in the United Kingdom and the home of a Local Studies Centre and an Oral History Archive. In contrast, Frank Herrmann gives an interesting account of the work of the Friends of Thomas Plume's Library, Maldon (founded 1704) in conservation, the recovery or replacement of missing volumes and the acquisition of additions to the extensive collection of contemporary sermons. Stuart Mason's useful survey of early estate cartography sets the Walkers in context. Kenneth Neale's essay on John Norden complements the wider survey, which it is to be hoped will be published in an extended form. John Hunter, in his essay on springs and shaws, makes good use of maps to show the rise and fall of a minor feature in the Essex landscape. Kenneth Neale brings together existing research on the saffron crocus, showing how Saffron Walden was a marketing and processing centre for the valuable crop in the 16th century, and using wills and field names for evidence of cultivation elsewhere in Essex, e.g. Colchester.

Articles on archaeology and history range from the Romans to World War I. Mark Davies puts forward the claim of Pliny the elder as the first writer to mention Camulodunum. He also stresses the importance of the Gosbecks site (opened 1995) as the central focus of Camulodunum. Janet Cooper's meticulously researched account of a royal impostor, Robert Mantell, coveys something of the credulous atmosphere of Elizabethan Essex. John Smith's interesting survey of early Essex settlers is also a useful analysis of the county's Puritan community. A map of the early settlements in America would have been welcome instead of an engraving of the cathedral, in view of John Moses' well-illustrated essay. Herbert Hope Lockwood's account of the Bow Street mounted patrol throws light on the little known period of Essex policing before 1840. Andrew Phillips' essay on the 1865 election makes good use of new material. Ian Robertson examines the implications for social history of the cases of two naval V.C.s. George Drewry's award attracted brief press attention as epito-

mising the best of British boyhood, despite his having attained the age of 20. Jack Cornwell's posthumous award was exploited in a well co-ordinated attempt to promote the war effort.

There are a number of important contributions to Essex ecclesiastical history. Jennifer Ward describes the piety of medieval noblewomen; the evidence of wills shows how, as death approached, provision was made for the funeral and for the setting up of chantries in parish churches. Geoffrey Martin places Archbishop Samuel Harsnett's library (now in Colchester Central Library) and his magnificent brass (at Chigwell) in the context of his time and of his own beliefs and values. Harsnett and Plume both left their libraries for 'public use', but Harsnett's was a working theologian's library with little attempt to make it comprehensive. Lord Petre reminds us of the importance of the 9th Lord's leadership in the first stages of Roman Catholic emancipation, attaining freedom of worship and education in 1791. The financial implications of Lord Petre's building campaigns are also discussed; he could only afford to decorate the saloon at Thorndon towards the end of his life. Michael Beale provides the background to the ecclesiastical census of 1851, before discussing the problems of using it and suggesting lines for future research, such as the rationale for Victorian church extensions and the relative strength of Methodism in the Tendring hundred. The census reflects an Essex which was still predominantly Anglican, but does not throw light on whether the 'double loyalties' of those attending both church and chapel, reflected in the 1829 census, still persisted in 1851.

David Stenning reports on research in progress on boarded walls. The clearest example is the 13th-century Wheat Barn at Cressing Temple, with grooves to accommodate vertical wall-planking; a reconstruction is on display. Adrian Corder-Birch attempts a broad survey of brick-making, a field in which much research is in progress. The 'great bricks' at Coggeshall are perhaps better known than those at Waltham Abbey. There are a number of inaccuracies in the list of large brick houses. Old Thorndon Hall was originally built in brick in 1415 and enlarged between 1575 and 1595. Rickling Hall, contemporary with Horham Hall, is omitted. White brick was used at New Thorndon Hall, but not at Braxted Park or Hylands, which was stuccoed. There is a useful account of the brickmaking process and an interesting discussion of the relationship between the expansion of the industry and the pre-1914 light railway movement. The value of John Boyes' essay on dovecotes, including Spains Hall, would have been increased by an appendix listing surviving cotes.

Iris Woodward's 'Patrons, Artists and Craftsmen in Essex' is an original and attractive subject, marred by carelessness in writing and editing. Some of the important wall paintings at Hill Hall remained *in situ*, miraculously surviving the fire of 1969. Moulsham Hall was rebuilt in the 18th century by Benjamin Mildmay, Earl Fitzwalter; A.C. Edwards' work on the accounts has been omitted from the bibliography. The house was demolished in 1809. The inclusion of the Fanshawe collection at Valence House should help to make it better known. Spains Hall houses no less than three pastels by John Russell, including one of Arthur Young. The achievements of the 20th century are rightly praised; Art Nouveau at Great Warley; the Gibberd Garden at Harlow; the enterprising Fry Art Gallery at Saffron Walden.

In an essay on Essex heritage and the community, which would have been better placed at the end of the collection, Ken Hall summarises recent achievements and looks forward to the 21st century.

Nancy Briggs

Witham 1500-1700: Making a living by Janet Gyford, published by the author (1996), xiv + 304 pages, 246 illustrations, 32 maps, 16 tables, 6 pedigrees, endpaper map. ISBN 0 946434 02 6. £10

This book is the fruit of nearly 30 years' work in accumulating the documentary material and in field study of the growth of this Essex town.

Witham lies near the Roman road from London and Chelmsford to Colchester and was an early centre of settlement, though the church and probably the Saxon settlement at Chipping Hill were well to the west of this road. It is close to the junction of the rivers Blackwater and Brain.

Witham was the site of one of Edward the Elder's defensive *burhs* in the 10th century. By 1086 it was of a considerable size as part of the royal estate of Witham with Cressing; a market existed by the mid-12th century. The development of the new town, to the east of Chipping Hill and the church, may be linked with the grant of the manor to the Templars *c.*1147 and their later use of this area, known as Newland. This extended to the Roman road, still known as Newland Street where it passes through the town, and until recently part of the A12. In 1212 the Templars received a grant from King John for a market and fair in their 'new town of Wulversford in the parish of Witham.' Wulversford may have been an earlier settlement.

Although this book deals with the two centuries 1500-1700, it inevitably includes references earlier and later, so providing links with present-day Witham. Arrangement of the book is by subject rather than chronology. The two settlements, at Chipping Hill and around Newland Street, are both discussed as the basis of the modern town and the various problems of Witham's prehistory set out in chapter 1 supplement Dr Warwick Rodwell's *The Origins and Early Development of Witham, Essex* (1993), with documentary evidence correcting some of the latter's suppositions. This chapter is being expanded by the author in a separate publication.

The relative status of Witham as one of the smaller towns in Essex is shown by use of taxation records which are also used, with other sources, in analytical tables to present detailed lists of taxpayers by occupation or social class. Similarly, probate records provide an even more detailed tabulation at dates in the 17th century. Further information on testators, their families and occupations, is provided in the final chapter.

Witham contains buildings dating from the 14th century, not only around Chipping Hill but also in Newland Street, and the author gives interesting details on their changing use, illustrated by a fine series of photographs and her own maps of the expanding built-up areas. The changing road pattern within and around the town is also shown by maps. Interesting light is cast on the postal service in the 17th century, when Witham was the posthorse stage for the mails between Chelmsford and Colchester; postmasters appear usually to have been local innkeepers or were based at inns since these would be of use for changes of horse.

Witham was until recently a parish with very rural roots and it is probable that even those working at weaving in the town may also have combined this with some subsistence cultivation of small plots. Tables illustrate, for the mid-17th century, the numbers of owners and occupiers of small and large farms. Maps show the meadowland along the rivers Brain and Blackwater and the mills, while on others the areas of the demesne land of each of the 5 manors are shown, from available documents. Common fields were not a feature of this part of Essex. The 'usage of the country' of two crops and a summer fallow in 1638 was still the custom in north-east Essex almost two centuries later; the summer fallow then included 'three and a half tilths,' not non-cultivation.

Trade in the town is illustrated by diagrams of the sites of named craftsmen's and traders' shops along Newland Street and at Chipping Hill, providing a directory of these two areas in 1608 and again in 1680. A full survey is made of these trades and of the market area and, in a separate chapter, the various processes of the cloth industry in the town are treated. Its rise and decline are shown through use of wills and other records. From local studies such as this can be built up a more complete account of the fluctuations in the cloth industry throughout the county's cloth-producing towns.

Use has been made of facsimile extracts and signatures from documents as some of the illustrative material, also providing examples for palaeographical study; this will bring the material alive to those inexperienced in reading records.

The history of the church and nonconformity is not included in this volume. The author is working on a companion volume, to be entitled *A Public Spirit: religion and politics in Witham and Essex 1500-1700*, for publication probably in 1997.

The amount of material available for even a small town the size of Witham (until its recent expansion) is daunting. The author has been able to bring it into a coherent and readable form. Her forthcoming supplementary volume will be awaited with interest.

Angela Green

Essex Churches and Chapels: a Select Guide, Canon John Fitch (ed.), published by Paul Walsh in association with the Friends of Essex Churches (1996) 217 pages, 67 colour illustrations, 74 black and white illustrations. £14.95

This attractive volume meets a long-felt need for an up to date guide to the many religious buildings of the county. The area of the historic county, including therefore some East London boroughs, has been the starting point, but the editor makes it clear that he has had to be selective, from a total of perhaps over 1000 buildings that could have been included. The text entries are pithy and informative; great care has clearly been taken to identify the significant, interesting and sometimes puzzling features in the chosen churches and chapels. Ancient buildings like the tiny St Peter's on the coast at Bradwell and the stave church at Greensted-juxta-Ongar are given equal treatment with the modern ones, such as the Roman Catholic cathedral in Brentwood, rebuilt to the design of the architect Quinlan Terry between 1989 and 1991. Even more recent is the pair of 'hostage' windows, 'Captivity' and 'Freedom' put in at the west end of Boxted church during 1993 to commemorate the captivity and release of the Beirut hostage, John McCarthy. The photographs, both colour, and black and white, are really very good, even when the subject matter is a notoriously tricky subject like the ill-lit details of a church interior, and these contribute greatly to the pleasing appearance of the book. The editor quotes the assistance of 4 sub-editors and a number of anonymous 'volunteers'; all are to be congratulated on a splendid publication.

Owen Bedwin

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Bibliography of Journal literature on Essex Archaeology and History at March 1997

Both monograph and periodical literature are included; articles published in journals devoted exclusively to Essex (e.g. *Essex Journal*) are not included. Items which have been overlooked in earlier bibliographies are added for completeness of coverage.

For *new* books on Essex history see the regular lists published in the Society's Newsletter.

Blackburn, M.A.S.	1996	'A hoard of late St. Edmund coins from near Colchester', *Numis. Chron.* 156, 289-91
Champion, T.C.	1994	'Socio-economic development in eastern England in the first millenium B.C.', in K. Kristiansen and J. Jensen (eds) *Europe in the First Millenium B.C.*, Sheffield: Archaeological Monographs No. 6, 15-44
Cool, H.E.M.	1996	'The Boudican uprising and the glass vessels from Colchester', *Expedition* (The magazine of the University of Pennsylvania Museum of Archaeology and Anthropology) 38, 52-62
Eddy, M.R.	1995	'Kelvedon and the fort myth in the development of Roman small towns in Essex', in A.E. Brown (ed.) *Roman Small Towns in Eastern England and beyond*, Oxford: Oxbow monograph No. 52, 119-28.
Greenwood, P.	1996	'Prehistoric and Roman Leyton: some comments', *London Archaeologist* 7, No. 16, 435-9
Hunt, E. and Pam, S.	1995	'Essex agriculture in the "Golden Age" 1850-73', *Agricultural History Review* 42, No. 2, 160-77
MacGowan, K.	1996	'Barking Abbey', *Curr. Archaeol.* 149, 172-8
Meddens, F.M.	1996	'Sites from the Thames estuary wetlands, England and their Bronze Age uses', *Antiquity* 70, 325-34
Millet, M.	for 1995	'An early Christian community at Colchester?', *Archaeological Journal* 149, 451-4
Schofield, P.R.	1996	'Tenurial development and the availability of customary land in a later medieval community', *Economic History Review* 49, 250-67 (on Birdbrook)
Searby, P.	1995	'Saffron Walden town library', *Local History* 25, 153-63
Simpson, C.J.	1996	'The statue of Victory at Colchester', *Britannia* 27, 386-7
Thompson, C.	1996	'New evidence of John Winthrop of Groton's Essex Connections and the colonisation of Massachusetts', *Suffolk Review* 26, 25-7

Andrew Phillips
Paul Sealey

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1 Contributions should be sent to the Hon. Editor, The Manor House, The Street, Pebmarsh, Halstead CO9 2NH.

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(Hawkes and Crummy 1995, 23-56)
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The expanded bibliography should appear at the end of the text, arranged in alphabetical order:

Atkinson, M. 1995	'A Late Bronze Age enclosure at Broomfield, Chelmsford', *Essex Archaeol. Hist.* 26, 1-23
Hawkes, C.F.C. 1995 and Crummy, P.	*Camulodunum 2,* Colchester Archaeological Report 11
Medlycott, M., 1995 Bedwin, O. and Godbold, S.	'South Weald Camp – a probable late Iron Age hill fort: excavations 1990', *Essex Archaeol. Hist.* 26, 53-64
Victoria County History 1963	*Essex,* iii

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