Archaeological monitoring of an Anglian Water mains replacement scheme from Shalford Green in Shalford to Petches Bridge in Great Bardfield, Essex December 2005-March 2006

report prepared by
Kate Orr
with contributions from
S Benfield, H Brooks, N Crummy,
V Fryer, H Walker and J P Wild

on behalf of
Anglian Water

CAT project ref.: 05/10d
HEM site code: GBAPS 05
Braintree Museum accession code: BRNTM 2005.35
NGR: TL 6997 3103 to TL 7128 2707

Colchester Archaeological Trust
12 Lexden Road,
Colchester,
Essex CO3 3NF

tel.: (01206) 541051
(01206) 500124
email: archaeologists@catuk.org

CAT Report 374
April 2007

Contents

List of figures and plates

1 Summary

CAT carried out archaeological monitoring and limited excavation along the line of a water-main replacement pipeline, to the north-west of Braintree. The northern end of the pipeline, in Great Bardfield parish, produced evidence for Late Bronze Age and Roman activity including a Roman burial. In the central part of the pipeline, a kiln was recorded which was producing Hedingham ware pottery from the earlier 13th to earlier 14th century. Nearby, but within Shalford parish, a medieval ?stock-pen was recorded. Also, archaeological evidence from the central southern part of the pipeline in Shalford parish corresponded with cartographic evidence for the now-vanished hamlet known as 'Park End'.

2 Introduction (Figs 1-3; Plate 1)

2.1 This is the archive report on archaeological monitoring for a watching brief and limited excavation along the line of a water-main replacement carried out to the north-west of Braintree. The monitoring was carried out by the Colchester Archaeological Trust (CAT) for Anglian Water Services Ltd and took place between the 12th December 2005 and the 23rd March 2006.

2.2 The scheme involved the replacement of a 5.25km water-main pipeline (Anglian Water reference AW/0004/05). The north end of the replacement pipeline is at NGR TL 6997 3103 (near Petches Bridge in Great Bardfield parish), and the south end is at TL 7128 2707 (Shalford Green in Shalford parish).

2.3 The southern and central parts of the pipeline occupy an area of higher ground to the west of the Pant Valley at around 75-85m AOD. At the northern end of the pipeline, the land gently slopes down towards the River Pant at Petches Bridge (55m AOD). The majority of the land affected by the scheme is under arable cultivation, other fields being horse paddocks and piggeries. Surface geology is mainly chalky boulder clay, with sand in some areas.

2.4 All fieldwork was carried out in accordance with a written scheme of investigation submitted by CAT (WSI 2005) and approved by Essex County Council (ECC) Historic Environment Management (HEM) team. The project was monitored by Vanessa Clarke of the ECC HEM team.

2.5 This report mirrors standards and practices contained in the Institute of Field Archaeologists' *Standard and guidance for an archaeological watching brief* (IFA 1999a), *Standard and guidance for archaeological excavation* (IFA 1999b), and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (IFA 2001). Other sources used are MoRPHE (English Heritage 2006), and *Research and archaeology: a framework for the Eastern Counties 1. Resource assessment* (EAA **3**), *Research and archaeology: a framework for the Eastern Counties 2. Research agenda and strategy* (EAA **8**), and *Standards for field archaeology in the East of England* (EAA **14**).

3 Archaeological background (Fig 1)

The Essex Historic Environment Record (EHER) shows that there are a number of archaeological sites on or close to the route of the pipeline.

A stone coffin, presumed to be Roman, was found in 1825, approximately 150m east of the crossroads at Waltham's Cross (EHER no 1505). The findspot, if correct, is very close to the route of the new pipeline if not slightly to its west. It is unlikely that the burial would have been the only one. Until 2005, this was an isolated find, but an evaluation in 2005 at Petches Yew Farm, 150m east of the route of the pipeline, revealed the site of a Roman villa. A mortared flint foundation and a surface scatter of Roman roof tiles, flue tiles and building debris represent the remains of a Roman building with at least one heated room. Next to it was another Roman building, probably of timber construction. Beyond the buildings were ditches enclosing the compound, some of which date back to the Middle and Late Iron Age, indicating extended occupation of the site (CAT Report 329).

Possibly linked to this Roman site are the earthwork banks surviving in Lodge Wood (EHER 1506; south-west of the Roman site) which may be the remains of a Roman road which ran past the site. Although untested by excavation, this is an attractive theory, and the road would have provided a link between the area of Finchingfield to the north and possibly Great Sampford to the south (and ultimately possibly connecting with the major Roman road called Stane Street just to the west of Rayne). This road would have served the Roman settlement at Petches Yew Farm and other Roman settlements in the area.

Some sherds of Roman samian ware were found in a field opposite Dynes Farm House, at the southern end of the pipeline (EHER no 14201). Also close to the southern end of the pipeline, linear cropmarks have been recorded north of Hubbard's Farm (EHER no 18308), which may be traces of ancient field boundaries.

4 Aim

The aim of the fieldwork was to identify and record any features or finds disturbed by the topsoil-stripping of the pipeline easement, and to excavate and record all features which would have been destroyed by the excavation of the trench and the laying of the pipe.

5 Methods (Fig 1)

5.1 The entire topsoil-stripping of the pipeline easement was monitored. The easement was between 7m and 9m wide and stripped using a mechanical excavator with a toothless ditching bucket. Subsequently, selected parts of the excavation of the pipe trench were monitored. The selection was based on the location of previous archaeological discoveries and where archaeological features had been recorded within the pipeline easement. The trench dug for the pipe was 900mm wide and between 1m and 1.7m deep. It was dug using a toothed bucket.

5.2 An archaeological surveyor plotted features using a total station and CAD incorporating an OS base map.

5.3 All features and layers or other significant deposits revealed by the topsoil-stripping were sampled by hand excavation, and sometimes fully excavated in the case of the burial and the kiln. For those features such as ditches which lay across the pipeline easement, a section was cut across the feature. All features and layers or other significant deposits revealed by the topsoil-stripping were planned, and their profiles or sections recorded. The normal scale was at 1:20 for site plans and at 1:10 for sections.

5.4 Individual records of features were entered on CAT pro-forma record sheets.

5.5 Finds were registered on CAT pro-forma record sheets and assigned finds numbers according to context. Finds were washed, marked with the site code number, and bagged according to context. Roman pottery and medieval pottery were examined by CAT archaeologists Stephen Benfield and Howard Brooks respectively. Helen Walker of the Essex County Council Field Archaeology Unit also commented on the medieval pottery from the kiln.

5.6 Colour photographs of the main features, sections, the general site and the site environs were taken with a digital camera.

5.7 Liaison was maintained with the ECC HEM team monitoring officer (Vanessa Clarke) to maintain an appropriate strategy to investigate deposits on the site.

6 Results

A full list of contexts with fill descriptions can be found in tabular form in section 14 (the appendices).

6.1 Roman and possible Late Bronze Age features south-east of Waltham's Cross (F26, F27, F30, F31, F32, F33, F37) (Plate 3 and Figs 3, 5, 10-11)

The topsoil-stripping for the pipeline easement was closely monitored as it approached Waltham's Cross, because this was where the Roman stone coffin had

been found in 1825. At the edge of Sweet Briar Paddock, which is on an area of higher ground at 78m AOD, an 8m-wide dark linear feature was exposed at right-angles to the pipeline easement (F37). This was originally interpreted as a wide field boundary ditch as it coincided with the existing line of trees marking the boundary to the paddock. A slot was excavated across this feature by CAT. The upper fill of F37 (which was less than 250mm thick) produced Late Bronze Age pottery as well as one piece of Late Iron Age pottery; most of these finds are listed as the upper fills of F25-F31 because some of these features were cut into F37. F37 was seen to be only 400mm deep and therefore was not a ditch. It may have been a sunken droveway alongside the field boundary. Its function will be discussed further in section 8.1.

The upper fill of F37 was seen to seal a series of linear features and pits which were cut into the natural sands. Several of these features produced Late Bronze Age pottery. On the western side of F37 was a narrow and shallow oblong pit (F30) which had a scatter of Late Bronze Age pottery lying on the base of the pit. Many of the sherds within F30 were from the same vessel and appeared to have been broken in antiquity (Fig 10). Most of the vessel was present and one sherd was also found in the fill of the later burial F25 (section 6.2), making it likely that F25 cut F30. F26 was recorded as a possible flat-bottomed ditch with a gravelly lower fill but it could equally be the lower fill of F37. F26 did not produce any finds. Cutting F26 was a small linear feature (F27) which did not produce any finds and is therefore undated. To the east of F27 was a 1.4m-wide flat-bottomed ditch (F31) which contained an iron nail and a piece of Late Bronze Age pottery. The iron nail is unlikely to be earlier than Roman and therefore a tentative Roman date for F31 is given. F27 and F31 were located on either side of the existing line of trees marking the boundary of the paddock. It may be that they were field boundary ditches. Two further features within F37 may be Roman or Late Bronze Age. F32 and F33 were shallow oblong pits. F33 cut F32 and produced a small amount of Late Bronze Age pottery. F33 also appeared to cut Bronze Age pit F30. No Roman or later pottery came from F32 or F33 but they seem to be stratigraphically similar to Roman burial F25 (section 6.2).

6.2 **Roman burial south-east of Waltham's Cross** (F25)

(Plates 2-3, Figs 4-6, 9-11)

Also within the wide dark linear feature F37 was pit F25. When fully excavated, F25 was seen to be sub-rectangular and to contain four complete or near-complete small Roman vessels. The four vessels had been placed upright on the base of the pit in a line (Fig 4 and Fig 11, pots 1-4, finds nos 44-47). One large rim of a large early Roman bowl was retrieved from the backfill of the pit (Fig 11, pot 5, finds no 50). The overall date range of the Roman pottery in the group is likely to be late 3rd-earlier 4th century AD (see section 7.1). Thirteen iron nails, some of which retained traces of mineral-replaced wood, were present, mainly located to the south of the pots. These nails probably derive from a coffin or a box (see section 7.5). A copper-alloy strap-keeper/slide was found between the nails and the pots. This item had mineralised textile adhering to one side (Fig 9; sections 7.5 and 7.6). A fragment of a handle from a blue-green glass jug lay next to the copper-alloy object. The size of the cut together with the presence of complete small pots and the nails all strongly suggest that F25 is a Roman burial, probably of a child (*CAR* **9**, 270-73).

There may be further burials or features within F37, but there was no opportunity to investigate further. It was expected that further Roman burials might be disturbed as the pipe trench was dug through the piggeries field further north (where the stone coffin had been found in 1825). No features showed up within the pipeline easement in this field, but this was due to the very thin layer of topsoil which was stripped off, leaving any underlying features obscured. The pipe trench was subsequently dug through the piggeries field without archaeological supervision. The trench was backfilled immediately and therefore it is impossible to say whether further burials or other features were present here.

Plate 2: Roman burial F25 with pots, view south-west.

Plate 3: Roman burial F25 and F26-F33 within wide linear feature F37, view south.

6.3 Medieval kiln F12 (Plates 4-5, Figs 6, 12-13) **and medieval ditch F11** (Fig 2)
Topsoil-stripping for the pipeline easement within Great Bardfield parish exposed a medieval kiln (F12). The kiln was situated near the boundary with Shalford parish, near the top of a gentle rise, not far from the lane, at 78m AOD. The top of the kiln had been ploughed away, thus removing the superstructure and the floor in the firing chamber which would have supported the pots. The eastern stokehole and firing chamber were visible on the surface. The western stokehole was revealed by excavation. The clay support of the firing chamber was burnt red as were the edges of the firing chamber and the western stokehole. The firing chamber was packed with broken pottery and charcoal. It had four distinct fills. The upper fill was a mid orange brown clay silt containing some ceramic building material, charcoal flecks and pot fragments. Below this was a dark grey brown clay silt with dense pottery and charcoal. This sealed a mid yellow silty clay. The lowest fill was dark grey brown clay silt with pot sherds and some charcoal.

The fills of the two stokeholes were both dark brown silty clay containing dense pottery plus charcoal and daub. In the firing chamber and eastern stokehole, under the main concentration of pottery and charcoal, were large chunks of flat unburnt flint.

As excavation progressed on the eastern end of the kiln, a narrow straight-sided channel was exposed underneath the eastern stokehole. The channel became deeper as it headed east and joined a small pit. It was filled by charcoal and pottery from the kiln, but the spread of pottery and charcoal seen on the surface of the kiln did not extend this far east. The channel and pit are rather problematic and may represent an extended vent and stokehole.

The kiln contained wasters of Hedingham coarse and fine wares (Figs 12-13) dating from the earlier 13th to earlier 14th century, as described in section 7.3.

One hundred and fifty metres to the south of the kiln, the topsoil-stripping exposed a ditch (F11) which also contained Hedingham ware pottery and this may be contemporary with the kiln (ie the earlier 13th to earlier 14th century).

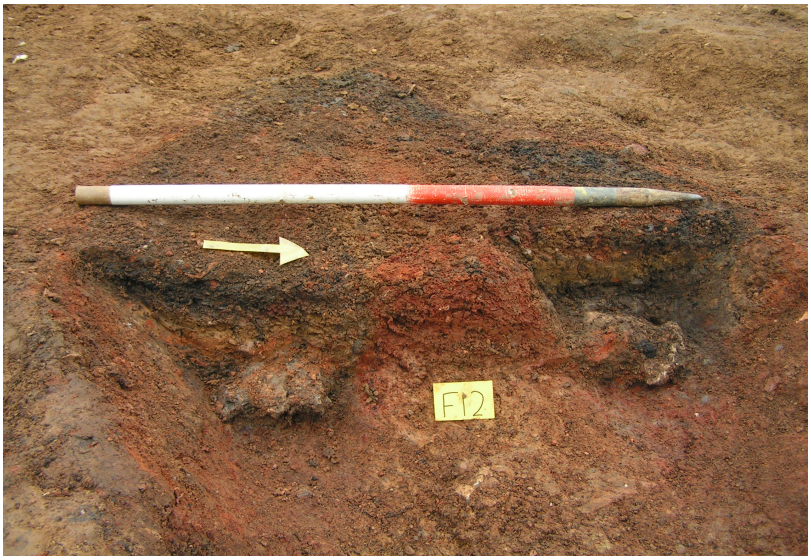


Plate 4: kiln F12 in section, view west.

Plate 5: kiln F12 fully excavated but with burnt clay support still *in situ* (with yellow label), view south-east.

6.4 Medieval ?stock-pen (F7) (Figs 2 and 7)

In the central part of the pipeline, near a house called 'Ringers' in Shalford parish, the topsoil-stripping exposed a ring-ditch (F7). This was at 77m AOD. Only the western side of the ring-ditch was revealed, as most of it lay outside the pipeline easement, but its diameter is estimated to have been 15m. The ditch of this feature was shallow and 350-550mm wide. Three stake or post-holes inside and outside the ring-ditch (F20, F21, F22) may have supported a fence. The ring-ditch contained Hedingham ware pottery of the type found in kiln F12 and is therefore presumably contemporary with it, ie the earlier 13th to earlier 14th century. The ring-ditch could be interpreted as a stock-pen. It was cut by four narrow linear features, probably plough furrows (F16, F17, F18, F19). F16 and F17 were parallel to each other. F18 and F19 were parallel to each other but on a different alignment to F16 and F17, which may indicate two phases of ploughing. Medieval Hedingham ware pottery was found in all four probable plough furrows. There were no later finds and so the probable furrows are likely to be medieval in date. F18 produced a large piece of Hedingham ware pottery which had probably been broken *in situ*. F16, F17 and F18 were cut by a modern land-drain (F24).

6.5 Park End hamlet (F1, F2, F3, F4, F5, F6, F8, F9, F10, F14, F15) (Figs 2 and 8)

Within the central southern part of the pipeline, within Shalford parish, several features were exposed by the topsoil-stripping, starting south of Hunts Farm Cottage and extending approximately 750m south. The features occupied a relatively high area of land at 85m AOD. A search of the historic maps showed this to be the site of a now-vanished hamlet known as Park End (Fig 14). Most features had a silty clayey fill and were cut into natural boulder clay (L2) which occurred directly below the topsoil (L1). The features are described below as they were encountered, from north to south.

Just south of Hunts Farm Cottage was a 3.2m-wide ditch running at right-angles to the pipeline easement (F1). The top of the feature was very charcoally. A section dug through F1 produced medieval, post-medieval and modern pottery, brick, peg-tile and animal bone. This feature was shallow (400mm at its deepest) and is likely to have been a property boundary ditch associated with Park End.

Twelve metres to the south of the ditch F1 was a brick path, over 1m wide, loosely laid with sand in between the bricks (F14). A small amount of peg-tile and post-medieval or modern pottery was present on the surface. The bricks were late 18th or early 19th century and unfrogged. These are overfired, technically wasters. As the pipe trench was dug through the pathway it was seen to be made up of four courses of bricks. Some demolition debris was recorded next to the pathway, which is likely to derive from a former cottage in the vicinity.

The next 75m of the pipeline easement did not produce any evidence of occupation, but a ditch (F4) was recorded which was aligned south-south-east to north-north-west. The ditch had obviously been infilled recently as there was 20th-century pottery and tile in the fill. This is interpreted as being the roadside ditch which flanked the eastern side of Parkend Lane. The owners straightened the lane in the 20th century, and, although it is now a bridleway, it is still known as Parkend Lane (Mr David Smith pers comm). The roadside ditches would have been filled in at this time. The date at which the ditch was dug can be estimated by the earliest pottery in its fill, which was 17th to 18th century.

A circular feature, 55m to the south of the brick path, was examined (F2). This was 3.5m in diameter. A quadrant was cut out of it, showing charcoal flecks throughout its fill with pieces of post-medieval pottery, animal bone and peg-tile. The feature was at least 1m deep and is likely to be a filled-in pond. Demolition debris was noted beside F2. The feature was also examined again as the pipe trench was dug through it.

Another ditch (F3) was crossed by the pipeline easement, 22m to the south of F2. It was 2.9m wide and its fill contained medieval and post-medieval pottery, peg-tile, clay pipe and animal bone. On excavation, the feature was found to be narrower than it looked, the action of the plough having pulled the top fill to either side and so making it appear wider on the surface.

Seventy-eight metres to the south of F3, another ditch was seen to be cut by the pipeline easement (F5). F5 was 2.5m wide at the surface but some of this width was

due to the action of the plough. Pottery and peg-tile from the fill of the ditch give it a post-medieval date, although there were two sherds of 13th- to 16th-century pottery. This and F3 were probably field or property boundary ditches.

Eighty-five metres to the south of F5, a linear feature was crossed by the pipeline easement (F6). On excavation, F6 was seen to be a slightly sunken cobbled surface, 5m wide. The surface was made up of compacted stone, flint and peg-tile, and wheel ruts were discernible. One sherd of 17th- to 18th-century pottery was retrieved from just above its surface. The feature was interpreted as a track running between properties and leading to the fields to the rear. When the pipe trench was subsequently dug through this feature, it was seen to be deeper than it had first appeared, as the cobbles sealed a V-shaped ditch. No pottery came from this V-shaped ditch, but there was tile from near the base and a patch of organic matter in the middle fill. Adjacent and to the south of F6 was a patch of demolition debris.

Fifty metres to the south of F6 was another patch of demolition debris (F8). This had a distinct circular shape. It was not sampled by excavation, but it was possible to examine the feature when the pipe trench was subsequently dug through it. The feature was 10m in diameter, 1.2m deep, with a round bottom. Its fill contained flecks of charcoal, daub, brick and tile plus iron nails. Peg-tile, post-medieval pottery and animal bone were also retrieved. A seam of charcoal was noted. The shape and depth of F8 suggest that it is another filled-in pond.

South of F8, the pipeline easement exposed a ditch running north-south (F9). After 60m, F9 joined another ditch (F10) which was heading east but turned south towards the existing hedge-line. The surfaces of F9 and F10 were scattered with tile and post-medieval and modern pottery. F10 produced one sherd of possible 16th-century pottery. F9 is probably a continuation of F4, the roadside ditch which was filled in when Parkend Lane was straightened. As F10 was in line with the existing hedge-line, it is likely to represent a former field boundary ditch which was probably filled in during the 20th century.

As the line of the pipeline easement turned to the south-east, another concentration of occupation debris was recorded (F15). This was a heavy concentration of flint, tile and some charcoal. F15 is probably the remains of a foundation to a cottage or perhaps demolition debris from a cottage. It was not sampled by excavation but is presumed to be a post-medieval feature and part of Park End hamlet.

6.6 Other features (F13, F34, F35) (Fig 3)

Just to the north of the kiln F12, the topsoil-stripping exposed a wide V-shaped ditch cutting across the pipeline easement (F13). This 1m-deep ditch had five fills and had possibly been re-cut. Daub, brick and peg-tile came from it and it is likely to have been a post-medieval field boundary ditch. It did not produce any Hedingham ware pottery and so is unlikely to be associated with the kiln.

Just south of Petches Bridge, a substantial ditch ran at right-angles to the pipeline easement (F34). A rusted 19th- or 20th-century kettle at the base of the feature gives a modern date for the infilling or silting up of this probable field boundary ditch.

Between Petches Bridge and Waltham's Cross, a modern shallow pit was seen in section as the pipe trench was dug through it (F35). Yellow bricks, peg-tile and a spade were present in the fill.

7 Finds

7.1 The pre-Iron Age prehistoric pottery (Fig 10)

by S Benfield

Introduction

There are approximately 153 sherds (1,610 g) of prehistoric pottery from the pipeline. All of the pottery was recovered from one small area, ie from contexts F25-F31. Several of the bags of pottery are from general clearance over several features, and these are labelled contexts F25-F28 and F25-F31. The pottery from F25 is residual from a Roman burial. All the pottery fabrics incorporate various quantities of crushed burnt flint temper. A number of sherds, generally with fine or

sparse flint tempering (Fabrics C and E), representing several different pots, have either burnished or smoothed surfaces, and one partial vessel (Fig 10.1) is extensively burnished on all surfaces apart from the base. Some of the burnished or smoothed sherds come from relatively thin-walled vessel(s) at between 3-5 mm thick (F25-F28 finds no 43, F25-F31 finds no 50, F27 finds no 57, F30 finds no 54). Other than surface finishes of burnishing and smoothing, none of the pottery was decorated, possibly with the exception of faint fingertip-impressions on the external surface below the rim of Figure 10.3. Various factors indicate that the sherds are not from disturbed contexts: the presence of an almost-complete broken pot, the presence of reasonably-sized rim and body sherds from other vessels, and the lack of abrasion on the surfaces of the sherds. Much of the pottery consists of undistinguishable sherds and all the significant or diagnostic pottery has been illustrated (Fig 10.1-7).

The prehistoric pottery fabrics (Table 1) follow those devised for the recording of prehistoric pottery in Essex (Brown 1988). The fabrics and form types recorded are listed below.

Table 1: prehistoric pottery fabrics used in this report.

size of inclusions:
S-small (<1 mm)
M-medium (1-2 mm)
L large (>2 mm)
density of inclusions:
1 = less than 6 per square cm
2 = 6 to 10 per square cm
3 = more than 10 per square cm.

Fabric A	Flint S 2 well sorted
Fabric B	Flint S-M 2
Fabric C	Flint S-M with occasional L
Fabric D	Flint S-L 2 poorly sorted
Fabric E	Flint and sand S-M 2
Fabric F	Sand S-M with addition of occasional L flint
Fabric O	Quartz and flint and some sand S-L poorly sorted
Fabric V	Flint S-M 1

Illustrated pre-Iron Age prehistoric pottery

Fig 10.1 – F25 (finds nos 49 & 58), F25-F28 (finds no 43), F25-F31 (finds no 50), F30 (finds nos 48 and 54). Significant part of a bowl (approximately 15% of the rim present, weight 1,010 g) with rounded carination, slightly flared rounded rim and flat base. External surface colour varies from brown-black, internal surface is dark grey-black. All of the surfaces are well burnished apart from the base of the pot which is covered in patchy dense flint grit (presumably on which the pot was stood when made or to dry, and which would have prevented it sticking to a surface). The pot is in sherds; 33 joining sherds form three non-joining part profiles, and other sherds can be identified as part of the one pot based on thickness, fabric and distinctive burnish. Most of the sherds were recovered from F30 (finds no 54). Fabric E.

Fig 10.2 – F25-F28 (finds no 43). Bowl with rounded slightly flaring rim, single sherd forming part profile. Fabric D.

Fig 10.3 – F25-F28 (finds no 43). Bowl with slightly flaring slightly beaded rim, single rim sherd. Faint fingertip-impressions on the external surface immediately below the rim. Fabric C or D.

Fig 10.4 – F25 (finds no 58). Carinated bowl, single body sherd, burnished inside and out. Fabric V.

Fig 10.5 – F25-F31 (finds no 50). Jar or bowl rim with rounded shoulder and flared rim. Fabric laminating, smoothed dark brown surface. Fabric E.

Fig 10.6 – F25-F31 (finds no 50). Jar or bowl with rounded shoulder and upright slightly beaded rim Smoothed, brown, exterior surface. Fabric C.

Fig 10.7 – F30 (finds no 48). Flat rim sherd from an open bowl or possibly from a small bucket urn. Fabric D.

Discussion

Overall the pottery can be dated to the Late Bronze Age, if not to the earlier part of it.

All of the pottery is flint-tempered. Sand is visible in the fabric of two of the vessels (Fig 10.1 and 10.5). Except for one vessel (Fig 10.3, which has a row of faint fingertip-impressions on the external surface just below the rim), none of the pottery is decorated, although the surfaces of several vessels are burnished or smoothed. Overall this is typical of pottery of the Late Bronze Age, and lack of decoration is more typical of the earlier part of the Late Bronze Age ceramic sequence (Brown 2002, 60). No sherds were identified that are clearly from very large jars, which are usually associated with Late Bronze Age assemblages (Brown 1988, 80). The Late Bronze Age assemblage from Frog Hall Farm, Fingringhoe, dated to the 9th century BC (Brooks 2002, 61), also lacked sherds from very large jars (Brown 1988, 80). It can be noted that a patchy black residue is present on the exterior surface of the Figure 10.3 rim.

The assemblage consists of both fine wares, ie burnished or smoothed vessels (some with relatively thin walls), and vessels in coarse wares. Where the fine ware pots can be identified, they are bowls with a rounded or angular shoulder or carination and with slightly flaring rims (Fig 10.1, 10.4-5). The identifiable coarse ware vessels consist of carinated bowls (Fig 10.2 and possibly 10.3), a shouldered bowl with an upright rim (Fig 10.6), and a flat rim from a plain hemispherical bowl or possibly a small bucket urn (Fig 10.7). Only one pot base is known, ie that of the partial bowl (Fig 10.1). This base of the pot is flat, and is covered with dense patchy crushed burnt flint which again is typical of the Late Bronze Age (Brown 2002, 60). While these vessel types can be paralleled from among other Late Bronze Age assemblages in Essex, for example, at Frog Hall Farm (Brown 1988, 80) and at Elms Farm, Heybridge (Brown 2001, fig 16), perhaps the best overall comparison from one site is with the vessels in the large Late Bronze Age assemblage from Runnymede Bridge, Berkshire (Longley 1992) dated to the 9th-8th century BC (Needham 1992, 376). At Runnymede, there is a large number of bowls similar in form to Figure 10.1-6 (Runnymede types 9 and 12).

7.2 The Late Iron Age and Roman pottery (Fig 11)

by S Benfield

Introduction

All of the Roman pottery from the pipeline came from the burial F25 or its immediate vicinity. There are four pots from F25. Three are complete vessels, and the top of the fourth pot has been damaged but the vessel was almost certainly intact when buried. In addition, there are only two sherds of Roman or Late Iron Age pottery from the pipeline, ie one from a large early Roman bowl which is also from F25, and one from a Late Iron Age grog-tempered bowl or jar from the area of features F25-F31. The pots were recorded using the Roman pottery fabric type series devised for *CAR* **10** and the pot forms were recorded using the Camulodunum (Cam) Roman pottery form type series (Hawkes & Hull 1947 and Hull 1958), together with the Chelmsford Roman pottery type series (Going 1987). The pottery fabrics in *CAR* **10** are recorded as two-letter codes and the full fabric names for each fabric are listed in Table 2 (below). All of the pottery has been illustrated (Fig 11.1-6).

Table 2: Roman pottery fabric codes and the corresponding fabric name used in this report.

Fabric code	Fabric name
GB	BB2: black-burnished ware, category 2
GTW	Late Iron Age grog-tempered ware
GX	other coarse wares, principally locally-produced grey wares
HZ	large storage jars and other vessels in heavily-tempered grey wares
KX	black-burnished ware (BB2) types in pale grey ware

Fabric descriptions other than fabrics listed in *CAR* **10**:
Fabric GTW Grog-tempered wares
Generally thick sherds with patchy red-brown to dark-brown surfaces. Fabric includes various quantities of crushed fired clay (grog) and varies from grey to brown.

Discussion
The Late Iron Age and Roman pottery from the pipeline consists of four whole Roman vessels placed together in one feature (burial F25), a large Roman sherd from the same feature, and the rim of a Late Iron Age pot from the area of burial F25.

The four whole pots in F25 had been buried together (Fig 11.1-4). The latest dated of the pots are the Cam 307 bowl (F25; Fig 11.4) which dates to the late 2nd/early 3rd-4th century, although it is noted that most are recovered from 4th-century contexts (*CAR* **10**, 482) and the Cam 281 flask (F25; Fig 11.1) which dates to the late 2nd century-?4th century (*CAR* **10**, 480). The two remaining pots (F25; Fig 11.2-3) are both dishes of Cam form 39B which as a BB2 (Fabric GB) form is dated to the early-mid 2nd-3rd century (*CAR* **10**, 469), although the grey ware version in this form (F25; Fig 11.3, Fabric KX) could possibly date as late as the 4th century. The group can be confidently dated to after the late 2nd century, while two of the pots, and possibly three, could date as late as the 4th century. However, the black-burnished ware (category 2) dish (F25; Fig 11.2) would not be a current pottery product after the late 3rd century. Overall, within the date ranges of the pottery in the group, a later date rather than an earlier one is to be preferred, say the late 3rd-earlier 4th century.

There is some damage to all of the vessels. Two of the pots from F25 (Fig 11.2-3) have small chips missing from the rim, and there are more general areas of chipping and abrasion to the rims of Figure 11.3-4 from F25. The chips from the rim appear to be old breaks but they are small and not necessarily deliberate, and nor do they appear to be the result of ritual damage. The top of the flask from F25 (Fig 11.1) has suffered much more damage (from the shoulder up), and part of the neck and rim were not recovered. However, there is no indication that this is other than modern damage, so it seems likely that the vessel was whole when buried. However, one of the four pots is deliberately marked. The bowl from F25 (Fig 11.4) has four groups of two lines that have been scratched into the rim in antiquity after the pot was fired. The groups are spaced out around the rim although the spacing is slightly uneven.

In F25, with these whole pots, was a single yet very large sherd, from a large bowl of form Cam 230 (Fig 11.5). The form Cam 230 appeared in the Late Iron Age, though the vessel here is of post-conquest date and can be dated as 1st century (*CAR* **10**, 477). Given a 3rd-century date for the group of whole pots in F25, this sherd should be residual, and also its condition, being slightly abraded, contrasts with the group of whole pots from the feature. However, the presence of this large single sherd as a residual piece is slightly surprising, especially given the absence of other Roman sherds from the feature, and it appears possible that, although old and worn, the sherd may have been a deliberate inclusion with the four whole pots. The four pots are small in size. Miniature pots are a feature of children's graves (*CAR* **9**, 270-73). The size of the pots and the grave itself are all consistent with F25 being the burial of a child.

The only other sherd recovered is a rim sherd from a Late Iron Age grog-tempered jar (Fig 11.6) which can be dated to the mid-late 1st century BC to the mid 1st century AD. This can only be attributed to having come from the fill of one of a group of features (F25-F31) which include the Roman feature F25.

The absence of any significant quantity of Late Iron Age or Roman sherds from the pipeline and the presence of only one feature of certain Roman date suggest that the area was peripheral to Roman occupation nearby.

Illustrated Roman pottery

Fig 11.1 – F25 (finds no 44). Cam 281 narrow-necked flask with small footring and two rouletted bands around the shoulder; part of the shoulder together with all of the lower part of vessel are whole, and there are several detached sherds from the shoulder and a single sherd which is part of the neck and rim (weight 301 g), fine sandy red-brown fabric with slightly abraded grey surfaces (Fabric GX), dated late 2nd-4th century.

Fig 11.2 – F25 (finds no 45). Cam 39B dish, plain, whole pot (weight 279 g), although there is a small chip missing from the rim which has spalled away a small area of the outside of the dish, red-brown fabric with black-burnished surfaces (Fabric GB), dated early 2nd to mid-late 3rd century.

Fig 11.3 – F25 (finds no 46). Cam 39B dish, although quite narrow in relation to its depth and the vessel could possibly also be used as a cup, whole pot (weight 152 g) although the top of the rim has a number of small chips or abraded and worn down patches in several places, also there is an old chip from one side of the rim which has spalled away a small area of the inner surface of the pot, grey fabric with burnished grey surfaces (Fabric KX), dated mid 2nd-3rd century.

Fig 11.4 – F25 (finds no 47). Cam 307 bowl with lid-seated everted rim (Going (1987) type E2), whole pot (weight 154 g), several abraded chips or areas of damage to one side of the rim; on the upper surface of the rim are four groups of two parallel lines orientated towards the centre of the pot which have been scratched into the surface after firing. There are traces of a pale slip or wash on the upper half of the pot and on the inner rim, and in places this wash has run onto the lower body; the fabric is grey with grey surfaces (Fabric GX), dated late 2nd-4th century, although it can be noted that most are recovered from 4th-century contexts (*CAR* **10**, 482).

Fig 11.5 – F25 (finds no 77). Two joining fragments, recently broken, forming a large single sherd from a Cam 230 bowl. The body is faintly rilled, especially below shoulder. The surfaces of the sherd are is slightly degraded being crazed with numerous small cracks, and the old broken edges are slightly abraded (Fabric HZ), dated 1st century.

Fig 11.6 – F25-F31 (finds no 50). Rim sherd from a Late Iron Age jar or bowl with burnished external surfaces (Fabric GTW), dated mid 1st century BC-mid 1st century AD.

7.3 The medieval pottery from the Great Bardfield kiln F12 (Figs 12-13)

by H Brooks

Introduction

The aim of this report is to put on record the discovery of a medieval kiln in the parish of Great Bardfield (NGR TL 7038 2982). The structure of the kiln is described (see above, section 6.3). It was discovered and excavated in January-March 2006.

A total of 3,927 sherds weighing 28.22kg was excavated from the interior and stokeholes of a type 2 kiln, as defined by Musty (1974) and illustrated by McCarthy and Brooks (1988, fig 16). The material found in the kiln (and presumed to be its product) comprises mainly Hedingham coarse ware (Fabric 20d) and a smaller quantity of Hedingham fine ware (Fabric 22: pottery fabric codes as defined by Cunningham 1985).

The coarse ware vessels are mainly undecorated cooking pots, with smaller quantities of jugs and bowls. The fine ware was exclusively stamped and stripped Hedingham ware jugs, with 'crescent-in-circle' stamps.

Pottery from other medieval and later 'consumer' features excavated elsewhere on the route of the pipeline is dealt with in a separate report (below, section 7.4).

Aims and method

I am very grateful to Helen Walker of Essex County Council Field Archaeology Unit for examining the pottery, advising on classification, reporting and drawing this assemblage, and for commenting on a draft of this report.

The fabrics produced here are described, and a typology of vessel forms is given. There is a little attention to methods of manufacture. A full quantitative analysis has

not been attempted, mainly due to budgetary constraints. The pottery was excavated from the kiln in a number of separate 'contexts', but cross-fits between contexts show that this is essentially all one group of material, and it is treated as such here.

The vessel typology has been created by drawing the most complete examples of the various forms and sub-forms. The typology produced is based on Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1-16), and John Cotter's additional detail on some fabrics in *CAR* **7**.

Vessel form typology

The overwhelming bulk of this material (90% by sherd count) consists of unclassified body sherds, and only a small proportion (10% by sherd count) consists of 'featured sherds' (ie principally rim sherds, with some handle fragments and decorated body sherds).

The fine ware

Fifty-five fine ware sherds were identified. This equates to 17% of featured sherds by sherd count. Jugs were the only identifiable fine ware product. One group of five joining sherds (Fig 12.1) gives a profile typical of Hedingham fine ware jugs, with vertical applied strips on the upper body/lower neck and two bands of circular stamps below a flat-topped rim (described in *CAR* **7** as 'stamped stripped jugs', 80, 89). Identical decoration is found on a separate sherd (Fig 12.2). There are close parallels for this jug form from Rivenhall (Drury 1993, fig 43.125, fig 43.128-130), and from the High Street in Colchester (*CAR* **7**, fig 50.17).

The stamps, in the form of a crescent in a circle, are not paralleled in *CAR* **7** or Drury 1993, but are in the same tradition as other Hedingham-style jugs illustrated by them, and comparable crescent stamps, not in a circle, occur at Colchester (*CAR* **7**, fig 50.18). The stamps are pressed into the body of the pot, and not into an applied pad.

The fine ware fabric is generally fired grey throughout, ranging from medium dark grey (Munsell 2.5y 6.1) to pale grey (Munsell 2.5y 7.1). Hedingham ware from occupation sites is nearly always a creamy orange, so these grey sherds are probably misfired (H Walker, pers comm). In a little under one-third of the fine ware sherds, the surface is underfired to a dull orangey brown (Munsell 5yr 6.4). This difference in colour might be put down to misfiring, were it not for the fact that two of these sherds have a spacing of applied strips which differs from the illustrated jug (Fig 12.1). In that jug, the applied strips are spaced approximately 5mm apart, whereas on the orange-bodied sherds they are approximately 15mm apart. This may be an indication of two different kiln products. The surface treatment supports this idea. On most of the grey sherds there are traces of a glaze over a white slip, but the glaze is so heavily degraded to a cream or very pale yellow that it is not possible to determine its original colour. On one of the widely-spaced strip sherds, however, the glaze is still noticeably brownish green. There are no rim sherds obviously belonging to the green-glazed and orange-bodied product. A single sherd shows a different surface decoration of applied white slip decoration (Fig 12.3).

The only handle fragment is from a twisted rod handle (Fig 12.4) in the Scarborough ware tradition, which may also belong to a stamped strip jug (cf *CAR* **7**, fig 50.17). There is also a parallel for the Hedingham ware twisted-rod handle from Rivenhall (Drury 1993, fig 43.127). Evidence for the method by which the handle was attached to the pot is demonstrated by a 9mm-deep hole 15mm below the rim (Fig 12.4b). This shows that a rectangular instrument has been pushed through from the interior of the pot and slightly downwards in the direction of the centre of the handle. This must have pushed clay from the pot wall into the core of the handle, and successfully attached one to the other.

The coarse ware fabric – a visual description

The fabric is very sandy, with rough internal and external surfaces (although surface weathering can make the pottery look coarser than it really is). Colour is in a range from dull light orange brown (Munsell 7.5yr 5.4) through to a pale greyish brown (Munsell 10yr 5.1). Fabric colour is generally uniform throughout, but, in some of the more orange-bodied pots, the internal break shows a stronger orange than the

surface (Munsell 5yr 6.6). On the surface and in the fabric, quartz grains are visible, sometimes up to 0.5mm diameter and occasionally 1mm. Occasionally, a small quantity of flint is included in the fabric, showing principally on the surface as fragments <2.5mm across.

The coarse ware cooking pots
Coarse ware cooking pots are the largest component of this group, forming 69% by sherd count of all featured sherds. Identifiable rim types are H1, H2, H3, B2, and A1a. Of the 186 rim fragments, 134 (72% of rim fragments) are H1 type; 21 (11%) are H2; and 25 (13%) are unidentifiable. Types B2, H3 and A1a make up the remainder of the group, in that order. Given the proportions of identifiable rims, it seems clear that the main kiln product comprises cooking pots with H1 rims, followed by a smaller number of cooking pots with H2 rims (in the proportion of roughly seven H1 pot rims to every one H2 pot rim).

Rim features
Three rims have thumbed tops, and one has a slight lid-seated effect similar to an example from Long Wyre Street in Colchester (*CAR* **7**, fig 58.4).

Surface treatment
The overwhelming majority of the body sherds, whether from cooking pot or bowl, are undecorated. Six cooking-pot rims have a thumbed applied cordon approximately 50mm below the rim (as Fig 12.9-12.11), and one sherd has rilling on the outer surface (Fig 13.15). A very small proportion of the product has wavy, combed surface decoration.

Manufacturing techniques
On seventeen rims, part of the inner face has flaked away. In one measurable instance, the flaking intruded approximately 25mm down the inner face of the rim. This indicates that at least some of the pots had rims with folded-over tops.

The coarse ware bowls
Twenty-one bowl sherds were identified. This equates to 7% of all featured sherds (a ratio of approximately one bowl to ten cooking pots). The bowls have everted rims, as illustrated in Figure 13.16-13.19. The bowls seem quite large, with measurable rims between 400mm and 480mm in diameter, with several examples clustering near to 440mm. A group of medieval sandy grey ware bowls from Colchester has two main size groups, ie a smaller group with diameters between 240mm and 280mm, and a larger group with diameters between 420mm and 540mm (*CAR* **7**, figs 61-62). The present group would therefore equate to the larger examples from Colchester. One bowl is similar to an example from Rivenhall, though with a slightly smaller diameter (340mm; Drury 1993, fig 41.90).

The coarse ware jugs
There were seventeen jug fragments, equating to 5% of all featured sherds by sherd count. These included rim sherds and fragments of handles. One example has an everted rim and pulled spout (Fig 12.5). There were several methods of decorating the handles: one (Fig 12.6) has cat's-claw slashed decoration similar to an example from Rivenhall (Drury 1993, fig 42.114). Another has a dished profile with slightly thumbed edges, again with a Rivenhall parallel (Drury 1993, fig 42.100). However, stabbed decoration was the commonest decoration, and this was present on six handle fragments (Fig 12.7-12.8).

Catalogue
Fig 12.1 Hedingham ware ‘stamped stripped’ jug
Fig 12.1a Detail of stamp at twice the scale of the jug
Fig 12.2 Hedingham ware ‘stamped stripped’ jug
Fig 12.3 Hedingham fine ware body sherd with applied slip decoration
Fig 12.4 Hedingham ware rim and twisted-rod handle in imitation of Scarborough ware
Fig 12.4a View of interior of jug showing attachment method
Fig 12.4b View of twisted-rod handle from above
Fig 12.5 Fabric 20 jug with pulled spout

Fig 12.6 Fabric 20 ?jug handle with cat's-claw slashed decoration
Fig 12.7 Fabric 20 ?jug handle with stabbed decoration
Fig 12.8 Fabric 20 ?jug handle with stabbed decoration
Fig 12.9 Fabric 20 cooking pot with thumbed, applied cordon
Fig 12.10 Fabric 20 cooking pot with thumbed, applied cordon
Fig 13.11 Fabric 20 cooking pot with thumbed, applied cordon
Fig 13.12 Fabric 20 cooking pot
Fig 13.13 Fabric 20 cooking pot
Fig 13.14 Fabric 20 cooking pot
Fig 13.15 Fabric 20 cooking pot
Fig 13.16 Fabric 20 everted rim bowl
Fig 13.17 Fabric 20 everted rim bowl
Fig 13.18 Fabric 20 everted rim bowl
Fig 13.19 Fabric 20 everted rim bowl

Discussion

Hedingham fine ware was one of the success stories of the medieval pottery industry in East Anglia and beyond. Judging by its findspots, it was principally traded over north Essex and Cambridgeshire, and, to a lesser extent, in Suffolk, Norfolk, Hertfordshire and Bedfordshire (*CAR* **7**, fig 53).

The kiln at Great Bardfield was in the heart of the Hedingham ware trading area, with the other two known production centres being at Sible Hedingham (8.5km to the north-north-east) and Gosfield (7.5km to the east). The Great Bardfield kiln is the most westerly Hedingham ware production site so far discovered, with other, unpublished kilns, clustered around Sible Hedingham, Gosfield and Halstead. There are local findspots of Hedingham fine ware, the nearest being at Great Sampford (8km north-west), Thaxted (8.5km west), and Great Easton (10km south-west; *ibid*).

The kiln is well situated at approximately 75m AOD on the east slope of a valley, where it is sheltered from the prevailing winds. The River Pant runs 750m to the north, but there may have been closer sources of water when the kiln was in production. The kiln is situated on Kesgrave sands and gravels, close to the border with boulder clay and also near deposits of London clay and head deposits. The location on Kesgrave sands and gravels may be significant, as the potters would have needed sand to temper the coarse wares.

Although only one kiln was found, it should be remembered that it was recorded in a 9m-wide easement stripped for the pipeline. If the ground on either side of the easement were excavated or tested by geophysical survey, it is possible that other kilns would be discovered.

There is no internal evidence for the kiln's production period, but the dating of two of the types of pottery types is relevant – specifically the Hedingham fine ware 'stamped stripped jugs' (Fabric 22) and the Hedingham coarse ware cooking pots (Fabric 20d). In *CAR* **7** (p 89), the fine ware 'stamped stripped jugs' are dated to *c* 1225-1300/25. The main cooking-pot rim type in this assemblage (H1) would normally be current throughout the 13th century, but the H3 type is late 13th to 14th century (Drury 1993, 81-4). Therefore the rim types date this particular kiln to the earlier 13th to earlier 14th century.

7.4 The non-kiln medieval pottery and later pottery

by H Brooks

Introduction

This is the report on a group (362 sherds, weighing 3,688 g) of medieval and later pottery from 'consumer' contexts on the pipeline (a further 33 sherds, weighing 860g, came from unstratified contexts). The pottery from the Hedingham ware kiln excavated in Great Bardfield parish at NGR TL 7038 2982 is reported on separately above (section 7.3). A full catalogue can be found in Appendix 3.

The pottery

The pottery came from seventeen site contexts. It was listed and weighed, and identified according to *CAR* **7** (Table 7 in appendix). Fabrics represented include sandy orange ware (Fabric 13), medieval sandy grey ware (Fabric 20, some of which is probably Hedingham coarse ware (Fabric 20d) from the kiln F12), sandy orange ware (Fabric 21), Mill Green ware (Fabric 35), post-medieval red

earthenware (PMRE or Fabric 40), Metropolitan slipware (Fabric 40a), black-glazed PMRE (Fabric 40bl), Frechen stoneware (Fabric 45d), Westerwald stoneware (Fabric 45f), modern stoneware (Fabric 45m), tin-glazed earthenware (Fabric 46), modern ironstone (Fabric 48d), and yellow ware (Fabric 48e).

Comment

Although this is not a large group, there are several points of interest. As the excavated features span the medieval, post-medieval and modern periods, the amount of medieval pottery (ie Fabric 20) is surprisingly high, at 50% of the group by sherd weight. This must be due to the presence of the kiln excavated nearby on the pipeline. Especially in the case of medieval ditch F11, which lies south of the kiln, and also the medieval ?stock-pen F7, all the medieval sherds in their fills are very probably from the kiln. As for the narrow linear features F16-F19, these also produced medieval Fabric 20 sherds. If these features were plough furrows, then it is probably the case that the medieval pottery has simply been ploughed up from the underlying ?stock-pen F7, which is itself dated to the medieval period by associated pottery. There is also one residual Roman sherd from F7.

The next largest group of pottery is Fabric 40 post-medieval red earthenware (PMRE), at 32% of the group by sherd weight. This is found mainly in the fills of the post-medieval ditches F1, F3, F5, F6, and also in those probable post-medieval features which are known to have been backfilled in the 20th century (F2, F4, F8, F9). However, in those latter features, the PMRE pottery is residual, and the 20th-century date for the backfilling of those features is confirmed by the presence of Fabrics 48d (modern ironstone) and 48e (yellow ware) in their fills.

The only other significant group of sherds is German stoneware: Frechen ware (Fabric 45d) and Westerwald ware (Fabric 45f), all from the filled-in pond F8. The Westerwald ware is probably 18th century, but is residual as the pond was filled in during the 20th century.

The general periods of activity indicated by the pottery are medieval (late 12th to 14th century), followed by post-medieval (17th and 18th century), and modern (20th century). There is no pottery evidence to indicate that there was any activity here in the 15th or 16th centuries.

7.5 The small finds and bulk metalwork (Fig 9)

by N Crummy

The finds from the Roman burial F25 consist of iron nails from a coffin or box, a fragment of a chain handle from a glass jug, a fragment of decorated copper-alloy sheet, and a copper-alloy strap-keeper or slide. The glass fragment and decorated copper-alloy sheet are unlikely to be grave goods, unless they had been collected as curios, and should perhaps be viewed as residual in the grave fill. This raises the possibility that the strap-keeper is also residual. It is an unusual item, for which no parallel has yet been found, making the identification only tentative. It is presumed that both ends of a thin strap were passed through it, allowing the strap to be tightened or loosened by sliding the keeper appropriately. It could have been used on a belt, but is most likely to have been effective on a strap securing a box or chest. It may therefore be no coincidence that mineral-replaced wood survived on many of the nails in the feature. The decorated copper-alloy fragment may have been cladding from a wooden box, but far too little has survived for it to derive originally from a box in F25. A small scrap of textile on one external face of the strap-keeper, and possible traces of leather or wood above the textile, may be the remains of either a cloth-lined leather bag or a cloth-lined wooden box, but, if the feature is accepted as a burial, it is perhaps most likely to come from clothing deposited as grave goods in a coffin or cremation casket, with the wood representing a plank from either the floor or the collapsed lid.

The majority of the other objects were nails, other iron fittings, or tools, all dating from the medieval to modern periods.

Fig 9. SF 1. (48) F25. Roman burial. a) Copper-alloy strap-keeper or slide made from a piece of folded sheet metal with the ends brazed together. Length 24 mm, width 26 mm. Mineral-preserved textile remains were found on one side of the exterior of the metal (see section 7.6) and traces of a dark compacted substance found above this

may have been leather (Colchester Museums conservation report; see site archive), but no similar material was found within the object; it may alternatively have been wood. b) Fragment of thin copper-alloy sheet with raised decoration on the upper surface, found adjacent to the strap-keeper. The decoration consists of linear mouldings and bosses, the best preserved area showing a line turning to form a penannular ring enclosing three raised dots. Maximum dimensions 17 by 18 mm. Repoussé decorated sheet was used in a variety of ways to ornament wood and leather objects in the Late Iron Age and Roman periods.

(55) F25. Roman burial. Fragment of a chain handle made from two strands of blue/green glass pinched together to form the chain; one complete link and two pinched junctions survive on this piece. Length 29.5 mm, maximum width 19 mm. Chain handles were mainly used on funnel-mouthed jugs dating from the 2nd to 4th century (*CAR* **8**, 139-40).

(49) F25. Roman burial. Iron nail shank fragment. Length 41 mm.

(50) F25. Roman burial. Two iron nails: one has a large square head and is lacking a large part of the shank; the head of the other is largely missing but its shank is complete and the lower part is covered with mineral-preserved longitudinal wood grain. Lengths 60 and 72 mm.

(58) F25. Roman burial. Nine iron nails and one nail shank fragment. The only complete nail is 72 mm long and has mineral-preserved longitudinal wood grain on the lower part of the shank. Several of the other nails have wood grain in a similar position. Lengths 61, 55, 53 (x 2), 47, 44, 30 (x 2) and 41 (shank fragment) mm.

(43) F25-F28. Layer above Roman burial. Iron nail shank fragment. Length 39 mm.

Other site finds

(40) F6. Post-medieval or modern linear feature. a) Iron nail with flat lozenge-shaped head, end of shank missing. Length 33 mm. b) Iron nail shank fragment. Length 33.5 mm.

(33) F7. Medieval ring-ditch (?stock-pen). Iron nail with small round head. Length 40 mm.

(11) F3. Post-medieval or modern linear feature. Iron nail with round head. Length 56 mm.

(7) F5. Post-medieval or modern field boundary ditch. Three iron nails with small round head and one nail shank fragment. Lengths 53, 54, 31 and 37 mm.

SF 3. (4) F14. Post-medieval or modern brick path. Cast iron ploughshare fragment. Modern. Length 148 mm.

SF 2. (5) F4. Upper (recent) fill of medieval or post-medieval roadside ditch. a) Iron plate, tapering to one short edge. 71 by 36 mm. b) Iron strip fragment, tapering in thickness towards one end; possibly part of a punch. 80mm long, maximum section size 16 by 12 mm. Both objects are modern.

(5) F4. Upper (recent) fill of medieval or post-medieval roadside ditch. a) Three iron nails, all with oval to polygonal convex head. Lengths 57, 54, 47 mm. b) Iron nail shank fragment. Length 35 mm.

(15) F4. Lower fill of medieval or post-medieval roadside ditch. Iron nail with small round head. Length 67 mm.

(1) F1. Medieval or post-medieval ditch. Iron square-section rod. Later post-medieval or modern. Length 314 mm, section 10 by 8 mm.

(1) F1. Medieval or post-medieval ditch. Six iron nails, heads varying from square to oval. Lengths 67, 63 (bent), 52, 51, 41, 34 mm.

(72) F1. Medieval or post-medieval ditch. Iron bolt with round head. Modern. Length 71 mm.

(17) F2. Backfill of ?pond. Iron knife fragment, with short rectangular-section tang, bolster stop, and part of the blade. Length 81 mm. Bolster stops were introduced in the 16th century.

(2). Unstratified. Iron nail with damaged small square convex head. Length 57.5 mm.

7.6 The textile (Fig 9)

by J P Wild

The cloth

Fragments of cloth adhering in a single layer to a copper-alloy hollow strap-keeper or slide (finds no 48) and minute loose scraps of the same fabric associated with it. They survive (albeit in a brittle condition) thanks to the biocidal properties of the copper salts leaching from the metalwork. The cloth is a medium-fine tabby, with System (2) dominant, and light brown in colour. Under low-power microscopy the fibres most closely resemble wool.

System (1), probably warp, medium/weak Z-spun, approximately 10 threads per cm, but wide-spaced. Yarn diameters vary from 0.3mm to 0.7mm.
System (2), probably weft, weak Z-spun (visibly weaker than(1)), approximately 16 threads per cm, closer set. Similar yarn diameter variability to (1).

Some surface areas showing apparent irregularity are probably damaged. The two larger fragments measure respectively 12mm and 10mm in the System (1) direction, 12mm and 12mm in System (2). There are 10-12 very tiny loose scraps of the same material.

Discussion

The appearance of the fibres, together with the unbalanced character of the weave and the contrasting strengths of spin in the two thread systems, suggest that the fragments stem from a standard Roman medium-weight weft-faced wool fabric. It is probably dress fabric in use or secondary use rather than part of a utilitarian container.

7.7 The brick and tile

by H Brooks

A complete list can be found in Appendix 4. This group is not in itself of any particular size or importance, but there are three points of interest.

Firstly, some of the peg-tile fragments are quite thick, ie up to 18mm in some cases, and often over 14mm. This is much thicker than the average size of peg-tiles from Colchester. Thick tiles are sometimes early in date, but only where they are seen with 'nibs' rather than peg holes, and this group did have both square and circular peg holes.

Secondly, some of the bricks appear to be in the Tudor tradition, but are very thin – some are only 40mm thick and one is 21-30mm thick. Thin bricks like this would not be out of place in an early medieval context, but the fabric does not match those from Coggeshall or Maldon (Andrews 1993, 99), and the other material found with these bricks is not so early. The conclusion must be that they are either very thick tiles or very thin bricks of local manufacture.

Thirdly, there is a tradition in Essex of making both brick and tile in a buff fabric (and in some instances with a marbled fabric) reminiscent of Suffolk Whites (Andrews 1993, 98). It is beyond the scope of this assessment to explore the distribution of Suffolk whites, so suffice to say that these may be a local product or imported from Suffolk.

7.8 An assessment of the charred plant macrofossils and other remains

by V Fryer

Introduction and method statement

The watching brief on the pipeline recorded the remains of an earlier 13th- to earlier 14th-century pottery kiln (F12) in Great Bardfield parish. Samples for the extraction of the plant macrofossil assemblages were taken from within the firing chamber, and three were submitted for assessment.

The samples were processed by manual water flotation/washover, and the flots were collected in a 500-micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed in Table 8. Nomenclature within the table follows Stace (1997). All plant remains were charred. The non-floating residues were

collected in a 1mm mesh and sorted. All artefacts/ecofacts will be retained for further specialist analysis if required.

Results

Perhaps somewhat surprisingly, given the context, all three assemblages were extremely small (<0.1 litres in volume) and, with the exception of charcoal, plant macrofossils were exceedingly rare. A possible fragmentary rye (*Secale cereale*) grain was noted in sample 1, along with a bread wheat (*Triticum aestivum/compactum*) type rachis node. Individual small legumes (Fabaceae) or dock (*Rumex* sp.) fruits were present in all three samples. Charcoal fragments were moderately common, with other plant macrofossils including pieces of charred root/stem, an indeterminate bud and inflorescence fragments. Other remains included pieces of black, porous material, burnt bone, burnt stone and small pellets of fired clay.

Conclusions

Although small, the assemblages possibly indicate that a variety of materials, including cereal-processing waste, dried plant material and hedge scrub, may have been used as fuel in the kiln. However, it should be noted that such low densities of material may also represent accidental inclusions of charred waste, possibly in the form of wind-blown detritus. Either way, it would appear that the kiln was well cleaned after its final firing.

Table 8: charred plant macrofossils and other remains from the firing chamber of kiln F12.

x = 1-10 specimens; xx = 10-50 specimens
fg = fragment; b = burnt

Sample no	**1**	**3**	**4**
Finds no	**26**	**53**	**60**
Cereals			
Secale cereale L. (grain)	xcffg		
T.aestivum/compactum type (rachis node)	x		
Herbs			
Fabaceae indet.		x	
Rumex sp.	x		x
Other plant macrofossils			
Charcoal < 2mm	xx	xx	xx
Charcoal >2mm		x	
Charred root stem	x	x	x
Indet. bud			x
Indet. fluorescence fragments	x		
Other materials			
Black porous 'cokey' material	x	x	x
Bone		xb	
Burnt/fired clay	x	xx	
Burnt stone		x	x
Sample volume (litres)	10	10	10
Volume of flot (litres)	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%

8 Discussion

8.1 Late Bronze Age or Roman features in Sweet Briar Paddock

Residual Late Bronze Age and Late Iron Age pottery came from the upper fill of the wide linear feature (F37) in Sweet Briar Paddock. Several of the features which were cut into or were adjacent to F37 also produced Late Bronze Age and Roman pottery. Two of these features contained Late Bronze Age pottery and no later finds. It would appear that at least one of the pits dates to the Late Bronze Age (F30) and the other features are undated or of probable Roman 3rd- to 4th-century date. Two of the ditches (F27 and F31) within F37 may be former field boundary ditches as they are

on the same alignment as the existing field boundary. The function of the other features is not known except for Roman burial F25 (discussed in section 8.2). The presence of Late Bronze Age pottery is interesting as it indicates occupation and farming in this area stretching over three millennia. The only other Bronze Age finds from the vicinity are some burial urns reported from Shalford Green (B C Beard pers comm). There are also cropmarks near the southern end of the pipeline which may be remnants of former prehistoric field boundary ditches.

The date and function of the wide linear feature F37 is slightly problematic. Its date of use need not be later than Roman as there are no post-Roman finds from it. It is tempting to say that it was in use from the Late Bronze Age given the presence of pottery of this date, but this earlier pottery may be residual. It does not resemble a ditch so it may have been a slightly sunken droveway for herding cattle along. Perhaps F37 can be better understood as a series of separate features which happen to be covered with a similar dark fill, giving the appearance of one feature. The western part of F37 may have been a droveway. The base, although not metalled, was solid iron pan and did contain a high quantity of gravel in one place. Ditches F27 and F31 may have been dug into this droveway after it went out of use. Their function may have been to delineate a new field boundary. The eastern part of F37 (containing F25, F30, F32 and F33) could consist of separate features alongside the droveway/field boundary.

8.2 Roman burial in Sweet Briar Paddock

Linear feature F37 included a Roman burial F25. Although no bone survived in F25, given its shape and the presence of the whole pots within it, it must almost certainly have contained a human burial; if so, it could have been either an inhumation or a cremation. The sub-rectangular cut resembles a grave for an inhumation burial. The nails in F25 are probably from a coffin about 1m long, or a box or both (see section 7.5) and mainly come from the southern end of the feature. This must have been a child's inhumation burial as it would be difficult to fit an adult into the limited space. The child could have lain in a coffin along the western side of the grave. The small pots also point to it being a child's burial (*CAR* **9**, 270-73). Non-survival of human bone is common in inhumation burials in sandy acidic natural ground and especially with child burials. The nails and copper-alloy strap-keeper/slide with wood and textile attached to it could well be from a box. Boxes are often found with cremation burials, usually as a container for the bone. However, in a cremation burial, the bone, having been burnt, will almost always survive; therefore if F25 was a cremation burial it would be hard to account for the lack of bone. The box may have contained clothing or other items, and not bone.

As discussed in section 8.1, the burial may have been located next to a droveway or field boundary. There is certainly a field boundary present now, and it is known to date to at least 1881 as it is shown on the 2nd edition OS map. The burial of individuals at field boundaries in the countryside in Essex in the Roman period is well attested (some were recently excavated by CAT at Area 2 of Colchester Garrison; CAT Report 292). The discovery of this burial adds to our knowledge of Roman land-use in this area. 500m to the west are the earthworks of a possible Roman road in Lodge Wood, which are as yet unexcavated. 500m to the north-east of the burial is the site of a Roman villa which was found in 2005 at Petches Yew Farm. A stone coffin, probably Roman, was found about 300m to the north in 1825 in Sweet Briar Paddock. It would seem that the burial found in the pipeline easement is related to the Roman site at Petches Yew Farm. A picture is emerging of a small Roman farm served by a road linking the site to Finchingfield to the north and possibly Great Sampford to the south.

Overall, the pottery suggests occupation in the area possibly from the Late Bronze Age and certainly from the 1st century AD, and into the mid-late Roman period.

8.3 Great Bardfield kiln

The kiln is a Musty type 2 with two stokeholes, one at each end (Musty 1974; McCarthy & Brooks 1988, fig 16). The fires or fire would normally be in the stokehole arch, ie the narrow area between the firing chamber and the stokehole. The hot air would have been fed into the firing chamber. It may be that only one stokehole was

in use at a time and that the eastern stokehole is the later one, because the western stokehole was covered over and the eastern stokehole was visible on the surface. However, Musty (1974, 57) states that firing would involved fires being lit in both stokehole arches. The superstructure of the kiln had been ploughed away. Of the firing chamber, only the burnt clay sides and base plus the base of the clay support in the middle survived. One can only guess, therefore, at the internal arrangement. The clay support may either have supported a fixed perforated floor or a platform formed of removable bars of clay. The pots would have been stacked for firing on this platform/floor. A clay dome would have been constructed above, using brushwood or perhaps turves. This covering would have included an opening at the top to allow the hot air to escape. The firing chamber was filled with broken pottery and charcoal. There were large unburnt chunks of flat flint within the chamber, under the main concentration of pottery and charcoal. The function of these flints is not known. Internal and external stake holes were recorded, which were presumably related to the superstructure.

The pottery wasters from the kiln are Hedingham fine and coarse wares. The kiln must have been producing these wares from the earlier 13th to earlier 14th century (section 7.3).

The environmental evidence from the firing chamber (section 7.8) possibly indicates that a variety of materials, including cereal-processing waste, dried plant material and hedge scrub, may have been used as fuel in the kiln. However, it should be noted that such low densities of material may also represent accidental inclusions of charred waste, possibly in the form of wind-blown detritus. Either way, it would appear that the kiln was well cleaned after its final firing. The charcoal was not present in large enough pieces to retrieve and send for identification.

There was a narrow channel underneath the eastern stokehole which extended to the east of it into a pit; it contained pottery and charcoal and appears to have been part of the kiln. It makes the kiln unusual in its morphology as it does not conform to a regular Musty type 2 model. The channel and pit may be an extended vent leading from a stokehole though why it is at a lower level than the rest of the kiln and how it relates to the stokehole above is unclear.

Few Hedingham ware kilns have been published. Two that have been published were excavated by Oxford and Wessex Archaeology on the banks of the River Roding near Takeley in Essex, during works to widen the A120 (Oxford and Wessex Archaeology 2003). These two are of the Musty type 1a design (Musty 1974; McCarthy & Brooks 1988) with one firing chamber and one stokehole, unlike this one from Great Bardfield, which had two stokeholes. The pottery from the two Takeley kilns dates to the 12th century and so these date to a century earlier than the one described in this report. Immediately to the south-west of the two Takeley kilns, the ECC Field Archaeology Unit excavated seven further Hedingham ware kilns which were producing pottery in the late 12th century (Ennis forthcoming).

The kiln (F12) at Great Bardfield was located within a clay area and one would expect to find pits nearby which were dug to extract the clay to manufacture the pots or to make the superstructure of the kiln. No such pits were located nor any structures such as potters' workshops; however, there was a ditch (F11) approximately 150m to the south-east of the kiln F12 which appears to have contained pottery from it and is therefore likely to be contemporary. This kiln may well have been one of a group, which makes it likely that more survive in the vicinity (Musty 1974, 57).

8.4 Medieval ?stock-pen

A ring-ditch with stake or post-holes was exposed in the central section of the route of the pipeline easement, although most of it lay outside the easement. The most likely interpretation for the ring-ditch is a medieval stock-pen although the shape is hard to parallel, as they were usually rectangular or square. Another possibility is that the ring-ditch indicates the site of a windmill. The earliest type of windmill to be built were post-mills which date from the 12th century to at least the 18th century. A 12th- to 13th-century post-mill was excavated at Clobbs Wood site, Little Dunmow (Oxford and Wessex Archaeology 2003). At Stansted Airport, a 13th- to 14th-century post-mill was excavated by Framework Archaeology (Framework Archaeology

2001). However, medieval post-mills of this era (such as at Mucking in Essex; Clark 1993, plans 8 and 11) had substantial cruciform ground plans and no ring-ditch, making our structure an unlikely candidate. The pottery from the fill of the ring-ditch makes it contemporary with the kiln. If it were a stock-pen, then it shows that this area was under pastoral agriculture at this time. No livestock pens are depicted in this area on the 1603 manorial map of Shalford (held by ERO) and it is likely that the area was turned over from pastoral to arable use by that date. The fact that the ring-ditch is cut by medieval plough furrows supports this interpretation.

8.5 Park End

The hamlet known as Park End was not recorded in the EHER but is depicted on historic maps and is known about by some local residents. The watching brief on the pipeline gave the opportunity to supplement the cartographic evidence with archaeological evidence. A cobbled track, two filled-in ponds, demolition debris, a brick path, roadside ditches, a possible flint foundation, and boundaries of former fields and properties were exposed within the pipeline easement.

An examination of historic maps has helped with interpreting the archaeological features. Of particular use is the 1846 tithe map (Fig 14) which shows eight different plots with nine buildings lining Parkend Lane. The features found during the watching brief largely correspond with those on the map, eg the brick path F14 corresponds with one of the two northerly buildings on the eastern side of Parkend Lane. The spread of flint rubble F15 corresponds with the house shown to the south of Park End where the lane starts to turn to the south-east. The map also shows at least one pond in the area plus a field boundary and several property boundaries. The Tithe Award of 1846 lists the ten occupiers of the cottages and all of them were tenants rather than owners. The bridleway along which the pipe trench was cut was formerly the lane linking Hunts Farm with Shalford Green (Parkend Lane). It used to meander but it was straightened out by the current landowners, the Smith family, in the 20th century (Mr David Smith pers comm). Parkend Lane would probably have been flanked by ditches. The roadside ditches F4, F9 and F10 correspond with the previous course of Parkend Lane and showed evidence of being filled in recently. The finds from this area with the latest date are 19th to 20th century, but the majority of the dating evidence is post-medieval. This corresponds with the map evidence. The earliest map (supervision of the manor of Shalford 1603 surveyed by Edward Eldred) shows 21 tenants' houses fronting Parkend Lane plus a public house. The picture is similar on a map from 1730 (survey of the parish of Shalford). The settlement decreased in size during the 19th century, judging from maps of that time, so that, by the time that the 2nd edition OS map was surveyed in 1898, the plots were the same but all the buildings had gone.

But what of Park End's origins? The earliest pottery was of 12th- to 13th-century date, but it was only found in three features (F1, F3, F5). This indicates that the settlement may have had its origins in the medieval period. Documentary evidence and placenames can help here. The earliest reference to 'Parke End' is from 1572-93 (ERO/DGH/T21). A will of Robert Bett of 1634 mentions a freehold tenement and land at 'Park End', Shalford (ERO D/DO/T600). There is an abstract of a title of messuage at 'Poor Park End' in Finchingfield in 1795, owned by Isaac Legerton, a farmer in Shalford (ERO D/DO/T790/48). Local place names have medieval origins, eg Shalford appears in the Domesday book of 1086; Hunts Farm is mentioned in 1498 (Reaney 1935); Ringers is probably associated with John Renger of 1262 (Reaney 1935); and Reding Spring is on the 13th-century Dunmow Priory register as 'Le Reden'. Shalford Green is mentioned in 1580 (ERO DGH/T21).

If Park End had its roots in the medieval period, what exactly was its function and to which park was it referring? A park in the medieval sense was an enclosed area for hunting semi-wild animals, usually fallow deer. Most parks included considerable areas of woodland but other land-uses included pasture and sometimes even arable, meadow or common grazing. There are 103 known parks in Essex dating from pre-1536 (Rackham 1983, 142, 143 and 145). A distinctive circular boundary formed by roads and lanes to the east of Park End and to the west of Shalford Hall has the appearance of parkland or common land (Fig 1). The evidence for this being parkland are the remnants of woodland showing on historic maps ('Reden Wood' on

the 1603 manorial map; 'Shalford Park', 'Levelly Wood or Levenly Grove' and 'Reding Spring' on maps from 1730, 1846, 1876, 1898 and 1924). The 1603 manorial map and the 1730 map also mark a 'Plumford Park' on the eastern side of this circular boundary, not far from Shalford Hall. This 1603 map denotes most of the fields within this circular area as 'Demaynes'. This is a form of the word 'demesne', meaning that it was land farmed by the Lord of the Manor and not tenanted out. As this land was owned by one person (the Lord of the manor of Shalford), this would strengthen the argument for these lands within the circular boundary being parkland at one stage (rather than common land or land tenanted out to others). It would seem therefore that the hamlet of Park End was sandwiched between two parks, ie Shalford Park to the east and Bardfield Park to the west (Bardfield Park is shown on the 1603 manorial map and the 1730 map). It is thought by the author of this report that Park End is more likely to relate to Shalford Park, as it lies within the parish of Shalford and three of the property plots along Parkend Lane are shown on the 1730 map as belonging to Shalford Hall.

9 Archive deposition

The paper and digital archive and finds are currently held by the Colchester Archaeological Trust at 12 Lexden Road, Colchester, Essex CO3 3NF, but will be permanently deposited with Braintree Museum under accession code BRNTM 2005.35.

10 Acknowledgements

The Trust would like to thank Anglian Water Services Ltd for commissioning and funding the work and Balfour Beatty for allowing access and for their assistance on site. Helen Walker of the ECC Field Archaeology Unit gave advice on the medieval pottery from the Great Bardfield kiln. Vanessa Clarke of the ECC HEM team, Mr B C Beard of the Shalford Local History Association and Mr David Smith, the owner of Park End, provided useful background information and historic maps. The fieldwork was carried out by H Brooks, W Clarke, M Górniak, C Lister, K Orr and D Ross.

11 Abbreviations

AOD	Above Ordnance Datum, ie height above sea level
BRNTM	Braintree Museum
CAR	*Colchester Archaeological Report*
CAT	Colchester Archaeological Trust
CM	Colchester Museums
EAA	East Anglian Archaeology
ECC	Essex County Council
EHER	Essex Historic Environment Record, ECC
ERO	Essex Record Office (Chelmsford)
HEM	Historic Environment Management team, ECC
IFA	Institute of Field Archaeologists
NGR	National Grid Reference

12 References

Andrews, D D, (ed)	1993	*Cressing Temple. A Templar and Hospitaller manor in Essex*, Essex County Council Planning Department
Brooks, H	2002	'A Bronze Age and Saxon occupation site at Frog Hall Farm, Fingringhoe', in *EAH*, **33**, 54-62
Brown, N	1988	'A Late Bronze Age enclosure at Lofts Farm, Essex', in *Proceedings of the Prehistoric Society*, **54**, 263-76

Brown, N	2001	'Pottery', 57-67, in 'Prehistoric settlement and burials at Elms Farm, Heybridge', by M Atkinson and S Preston, in *Essex Archaeology and History*, **32**, 42-74
Brown, N	2002	'Prehistoric pottery', in Brooks 2002, 58-61
CAR **3**	1984	*Colchester Archaeological Report* **3***: Excavations at Lion Walk, Balkerne Lane and Middleborough, Colchester, Essex*, by P Crummy
CAR **7**	2000	*Colchester Archaeological Report* **7***: Post-Roman pottery from excavations in Colchester, 1971-85*, by John Cotter
CAR **8**	1995	*Colchester Archaeological Report* ***8****: Roman vessel glass from excavations in Colchester, 1971-85*, by H E M Cool and J Price
CAR **9**	1993	*Colchester Archaeological Report* **9**: *Excavations of Roman and later cemeteries, churches and monastic sites in Colchester, 1971-88*, by N Crummy, P Crummy & C Crossan
CAR **10**	1999	*Colchester Archaeological Report* **10**: *Roman pottery from excavations in Colchester, 1971-86*, by R P Symonds and S Wade, ed by P Bidwell and A Croom
CAT Report 292		The Colchester garrison PFI project, Colchester, Essex: a report on the 2003 excavation of Areas 2, 6 and 10, August-November 2003, unpublished CAT archive report, by Howard Brooks and Robert Masefield, 2005
CAT Report 329		An archaeological evaluation on Kell Field, Petches Yew Farm, Finchingfield, Essex, June-July 2005, unpublished CAT archive report, by S Benfield, 2005
CAT WSI	2005	*Written Scheme of Investigation for archaeological monitoring on the Anglian Water Petches to Shalford mains replacement scheme, Great Bardfield and Shalford, Essex*
Clark, A	1993	*Excavations at Mucking, Essex: vol 1, the site atlas*
Cunningham, C M	1985	'A typology for post-Roman pottery in Essex', in *Post-medieval sites and their pottery: Moulsham Street, Chelmsford*, by C M Cunningham and P J Drury, Chelmsford Archaeological Trust Report **5** and CBA Research Report **54**, 1-16
Drury, P J,	1993	'The Later Saxon, medieval, and post-medieval pottery', in *Rivenhall: investigations of a Roman villa, church and village, 1950-77. Volume 2 Specialist studies and Index to Volumes 1 and 2*, by W J Rodwell and K A Rodwell, CBA, Research Report, **80**, 78-95
EAA **3**	1997	*Research and archaeology: a framework for the Eastern Counties 1. Resource assessment*, East Anglian Archaeology, Occasional Papers, **3**, ed by J Glazebrook
EAA **8**	2000	*Research and archaeology: a framework for the Eastern Counties 2. Research agenda and strategy*, East Anglian Archaeology, Occasional Papers, **8**, ed by N Brown and J Glazebrook
EAA **14**	2003	*Standards for field archaeology in the East of England*, East Anglian Archaeology, Occasional Papers, **14**, ed by D Gurney
Ennis, T	forth-coming	'Roman and medieval land-use in the upper Roding Valley: excavations at Frogs Hall borrow pit, Takeley, Essex 2002', in *East Anglian Archaeology*
Framework Archaeology	2001	'Excavation on the long-stay car park, the long border road and the forward logistics base, Stansted Airport, Essex', Project Design Update Note 1
Going, C	1987	*The* mansio *and other sites in the south-eastern sector of Caesaromagus: the Roman pottery*, CBA, Research Report, **62**
Hawkes, C F C, & Hull, M R	1947	*Camulodunum: first report on the excavations at Colchester 1930-1939*, RRCSAL, **14**
Hull, M R	1958	*Roman Colchester*, RRCSAL, **20**
IFA	1999a	*Standard and guidance for an archaeological watching brief*
IFA	1999b	*Standard and guidance for archaeological excavation*

IFA	2001	*Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
Longley, D	1992	'The Late Bronze Age pottery', in Needham 1991, 376
MoRPHE	2006	*Management of research projects in the historic environment* (English Heritage)
McCarthy, M, & Brooks, C	1988	*Medieval pottery in Britain AD 900-1600*, Leicester University Press
Musty, J W G	1974	'Medieval pottery kilns', in *Medieval pottery from excavations: studies presented to Gerald Clough Dunning*, ed by V Evison, H Hodges and J G Hurst, 41-65
Needham, S	1992	*Excavation and salvage at Runnymede Bridge, 1978*, British Museum Press
Oxford and Wessex Archaeology	2003	'A120 trunk-road, Stansted Airport to Braintree, Essex: post-excavation and publication proposal', unpublished report
Rackham, O	1983	*Trees and woodland in the British landscape*
Reaney, P H	1935	*Placenames of Essex*, Cambridge University Press
Stace, C	1997	*New flora of the British Isles*, second edition, Cambridge University Press

Cartographic references

1603 manorial map reference: supervision of the manor of Shalford, measured by Edward Eldred Esquire (copy provided by Mr B C Beard of Shalford Local History Association but available at the ERO)
1730 map ref: the parish of Shalford (copy provided by Mr B C Beard but available at the ERO)
1776 map ref: the county of Essex, surveyed by Chapman and André (available at CAT offices)
1846 map ref: tithe map of Shalford (provided by one of the current landowners Mr David Smith but available at the ERO)
1876 1st edition OS map (provided by Vanessa Clarke, ECC HEM team)
1881 2nd edition OS map (provided by Vanessa Clarke, ECC HEM team)
1924 3rd edition OS map

13 Glossary

Bronze Age	period from *c* 2,500 BC to 700 BC
CBM	ceramic building material
context	either a feature, layer or a complex of layers/features
feature	an identifiable thing like a pit, a wall, a drain, a floor; can contain 'contexts'
Late Iron Age	period from *c* 75 BC-AD 43
Late Bronze Age	*c* 1,000 BC-700 BC
layer	distinct or distinguishable deposit of soil
medieval	the period from 1066 to *c* 1500
modern	period from the 19th century onwards to the present
natural	geological deposit undisturbed by human activity
PMRE	post-medieval red earthenware
post-medieval	from *c* 1500 to *c* the late 18th century
Roman	period from AD 43 to *c* AD 410
U/S	unstratified (without a clear archaeological context)

14 Site data

Table 3: summary of contexts and associated finds.

feature or layer	location	context type	comments	soil/fill description	associated finds	context dated as
L1	Hubbards Farm to Hunts Farm Cottage	Topsoil	On arable land the topsoil sits on top of natural (L2 and L3)	Soft dark orange brown clayey silt with chalk and flint pieces	?	?
L2	Hubbards Farm to Hunts Farm Cottage	Natural clay	Natural boulder clay underlying L1	Medium yellow clay with chalk and flint pieces	-	glacial
L3	northern half of pipeline on higher ground	Natural sand and gravel	Natural underlying L1	Light yellowy/ orange silty sand	-	glacial
L4	paddocks and piggeries between Petches Bridge and Waltham's Cross	Subsoil	Lack of cultivation here gives a subsoil layer between topsoil (L1) and natural sand (L3)	Orange/brown clayey silt	Peg-tile, post medieval brick, Roman tile	?post-medieval
F1	Park End	Shallow ditch	Field or property boundary ditch	Light-medium yellow/brown silty clay with charcoal flecks and a seam of charcoal at the top	Pottery, brick, peg-tile, animal bone, glass, clay pipe, nails	post-medieval
F2	Park End	Circular cut feature 3m x 3m	Filled-in ?pond; charcoal flecks	Medium brown silty clay with charcoal flecks and pieces of tile	Pottery, animal bone, peg-tile	filled in during 20th century
F3	Park End	Linear feature	?Property boundary ditch	Light to medium yellow/brown silty clay	Pottery, peg-tile, clay pipe, animal bone	post-medieval
F4	Park End	Ditch	Filled-in roadside ditch		Modern pottery and tile including an air brick	filled in during 20th century
F5	Park End	Ditch	?Field boundary ditch	Light yellow/brown silty clay	Pottery and peg-tile	post-medieval
F6	Park End	Linear feature with cobbled surface	Partly sunken ?track with a stone/flint/tile compacted surface and possible wheel ruts	Medium yellow/brown silty clay; feature was deeper and V-shaped when pipe trench cut through	Peg-tile, brick and pottery	post-medieval
F7	north-east of Park End	Insub-stantial ring-ditch with post- or stake holes	?Stock-pen cut by medieval ?plough furrows F16-F19	Medium dark yellow/brown silty clay with flecks of charcoal, oyster shell, daub and brick	Medieval pottery and animal bone	medieval

F8	Park End	Patch of demol-ition material	Filled-in ?pond containing a seam of charcoal	Medium dark yellow/brown clayey silt with flecks of charcoal, daub, brick and tile plus iron nails	Peg-tile, brick, pottery, animal bone	filled in during 20th century
F9	Park End	Ditch running north-south, towards existing hedge-line	Former field boundary ditch; the fill appears burnt at the northern end	Firm, moist, medium dark orangey brown silty clay, containing flecks of charcoal, oyster shell, daub, brick and tile	Modern and post-medieval pottery; nails	filled in during 20th century
F10	Park End	Ditch running north to south	Former field boundary ditch – continuation of F9?	Firm, moist, medium dark orangey brown silty clay, containing flecks of charcoal, daub, brick and tile	Modern and post-medieval pottery and nails	post-medieval
F11	south of kiln	Ditch	?Field boundary	Firm, moist, medium dark yellowish brown clayey silt; charcoal flecks and small pieces of daub	Medieval pottery and burnt tile	?medieval
F12	central part of pipeline	Pottery kiln with two stoke-holes	Hedingham ware pottery kiln; the edges of the firing chamber and the western stokehole were burnt, and most of the structure of the firing chamber had been destroyed	Various fills: the firing chamber fill as follows: Fill A - (upper fill) - mid orange brown clay silt containing some CBM flecks and pot fragments Fill B - dark grey brown clay silt, dense pottery and charcoal Fill C - mid yellow silty clay Fill D - (lower fill) - dark grey brown clay silt similar to fill B Fill E - (clay support) - orange red burnt clay. The two stokehole fills were dark brown silty clay containing 40% pottery, 15-20% charcoal and 5-7% daub	Pottery and charcoal; unburnt large flat flint cobbles at the base of the firing chamber and eastern stokehole	medieval – earlier 13th to earlier 14th century

F13	north of kiln	Wide V-shaped linear feature	?Field boundary ditch; possibly re-cut – 1m deep	5 fills: Fill A (upper fill) - mid to light grey brown clay silt with occasional charcoal flecks & fragments and small stones Fill B - mid grey orange brown clay silt with occasional charcoal and small stones Fill C - mid to light brown grey orange brown clay silt with concentrations of grey clay silt and very occasional stones Fill D - (lower and outer fill - original fill, cut by fills A-C) light orange brown clay silt with small stones and very occasional charcoal flecks Fill E - (outer fill on south side) - light yellow orange brown clay silt	Daub, brick and peg-tile	?post-medieval
F14	Park End	Brick footpath	4 courses deep, with sand in between the bricks		Peg-tile and pottery; the bricks are late 18th-early 19th century	late 18th-early 19th century
F15	Park End	Heavy concent-ration of flint with charcoal	Foundation or demolition debris	Flints in a matrix of firm, moist, medium dark yellow brown silty clay with charcoal and brick and tile	Brick and tile	?post-medieval
F16	north-east of Park End	Narrow linear feature cutting F7	Possible plough furrow	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile	Medieval pottery	medieval
F17	north-east of Park End	Narrow linear feature cutting F7	Possible plough furrow	Firm, moist, medium dark yellow brown silty clay	Medieval pottery	medieval
F18	north-east of Park End	Narrow linear feature cutting F7	Possible plough furrow	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile	Medieval pottery	medieval

F19	north-east of Park End	Narrow linear cutting F7	Possible plough furrow or something ?structural, containing 2 post- or stake holes or animal burrows	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile	Medieval pottery	medieval
F20	north-east of Park End	Stake or post-hole outside F7	?Structural	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile		
F21	north-east of Park End	Stake or post-hole inside F7	?Structural	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile		
F22	north-east of Park End	Stake or post-hole outside F7	?Structural	Firm, moist, medium yellow brown silty clay with flecks of daub and fragments of tile		
F23	no F23					
F24	north-east of Park End	Land-drain cutting F7, F16 and F18		Firm, moist, medium yellow clay with flecks of daub and fragments of tile		modern
F25	south of Petches Bridge, in Sweet Briar Paddock	sub-rectang-ular grave	Contained 3 whole Roman jars and a dish; layers above contained Late Bronze Age and Late Iron Age pottery	Soft friable dry dark orangey grey brown silty sand with occasional stone; no bone; heavy root action	Roman pots, and large sherd Roman glass handle, nails, copper-alloy fitting with textile – possible box	Roman, late 3rd to early 4th century
F26	south of Petches Bridge, in Sweet Briar Paddock	?Linear feature – flat-bottom-ed; may just be lower ditch fill of F37	Cut by F27; possibly cut into F37	Two fills: upper fill - medium orange grey brown silty sand containing small stones; lower fill - fine white sand with 80% gravel content – ?natural; heavy root action	Layers above contained Late Bronze Age and Late Iron Age pottery	Roman or earlier
F27	south of Petches Bridge, in Sweet Briar Paddock	Small linear feature	Cut into F26 and F37	Narrow ditch with two fills: upper fill (or could be sealing layer and not part of the feature) - mid to dark brown sandy silt with occasional stones lower fill - mid brown sandy silt	Layers above contained Late Bronze Age pottery	Roman or earlier

F28	south of Petches Bridge, in Sweet Briar Paddock	Layer sealing F25, F26, F27, F30, F31, F32 and F33	Thought at first to be a linear feature; probably equates to upper fill of F37	Dry and soft mid brown sandy silt with frequent stones and heavy root action	Contained Late Bronze Age and Late Iron Age pottery and one piece of intrusive post-medieval tile	Roman or later
F29	no F29					
F30	south of Petches Bridge, in Sweet Briar Paddock	Shallow pit-like feature – oblong with rounded edges	Adjacent to and possibly cut by F25	Shallow oval cut feature adjacent to F25 filled by soft, friable, dry, very dark brown silty sand	Contained Late Bronze Age pottery	?Late Bronze Age
F31	south of Petches Bridge, in Sweet Briar Paddock	Flat-bottom-ed ditch	Cut into F37	Two fills: upper fill - fine white sand with frequent stones lower fill - mid to dark brown sandy silt with green tinges and frequent stones	Iron ?nail; Late Bronze Age pottery may have come from layer above	?Roman
F32	south of Petches Bridge, in Sweet Briar Paddock	Shallow pit-like feature	Adjacent to F25, F33 and F30	Filled by friable firm and dry dark orange brown silty sand		?Roman
F33	south of Petches Bridge, in Sweet Briar Paddock	Shallow pit-like feature	Adjacent to F25, F32 and F30	Friable dry dark orange brown silty sand	Small amount of Late Bronze Age pottery	?Roman
F34	Petches Bridge	Ditch	?Field boundary ditch		19th- or 20th-century kettle	post-medieval or modern
F35	between Petches Bridge and Waltham's Cross	Shallow pit	Seen in pipe trench	Grey brown sandy silt with common small stones	Yellow brick and a spade; peg-tile	modern
F36	Park End	Demol-ition debris			Oyster shell, brick pottery, animal bone and peg-tile	post-medieval
F37	south of Petches Bridge, in Sweet Briar Paddock	Wide dark linear feature, ?drove-way	Possibly cut by F26, F27, F31 – possibly separate feature to F25, F30-F33	Upper fill: dry and soft mid brown sandy silt with frequent stones and heavy root action; Lower fill: iron pan with gravel in some areas	Late Bronze Age-Late Iron Age	Roman or earlier (filled in by late Roman period?)

Distribution list:
Jon Chapman, Anglian Water Services Ltd
Vanessa Clarke, HEM team, Essex County Council
Essex Historic Environment Record, Essex County Council
Mr B C Beard, Shalford Local History Association

Colchester Archaeological Trust
12 Lexden Road,
Colchester,
Essex CO3 3NF

tel.: (01206) 541051
(01206) 500124
email: archaeologists@catuk.org

Checked by: *Philip Crummy*
Date: *20.04.07*

Adams c:/reports07/shalford/report374.doc

Appendix 1: the Bronze Age pottery

by S Benfield

Table 4: Prehistoric pottery sherds by context for each feature (for fabric codes, see section 7.1).

Feature	Finds number	Fabric	Sherds	Weight (g)	eve (% rim)	Vessel	Comments	Pot (cut)
F27	57	B	3	28	-	bowl	3 non-joining flint-tempered sherds, probably all part of the same thin-walled (4-5 mm) vessel with smooth burnished surfaces on both sides	
F31	56	V	2	16	-			
F31	56	B	1	7	-			
F31	56	C	1	37	-			
F33	59	B	1	11	-			
F33	59	V	1	7	-			
F33	59	D	2	15				
F25	49	E	3	61	-	bowl	3 joining sherds, sand-tempered with occasional flint, highly burnished on both sides with black surfaces, from a carinated pot, probably part of F30 finds no 48	
F25	49	C	1	11	-			
F25	49	A	1	10	-			
F25	49	D	1	6	-			
F25-F28	43	V	1	20	-	bowl	flint-tempered sherd from thin-walled (4-5 mm) vessel with smooth burnished surfaces, similar to F27 finds no 57 but fabric is different with smooth burnished surfaces on both sides	
F25-F28	43	E	2	43	0.01	bowl	highly burnished on both sides with black surfaces; one sherd is from a rim with the rim edge broken away	part of pot 1
F25-F28	43	C	1	11	-		burnished on outer surface, dense flint interior surface	
F25-F28	43	D	1	51	0.05	bowl	sherd from an open form carinated bowl with rounded rim	pot 2
F25-F28	43	C	1	15	0.05	bowl	rim, rounded, slightly rolled with faint fingertip-impressions below the rim, traces of dark residue on the outer surface	pot 3
F25-F28	43	B	5	43	-			
F25-F28	43	E	4	31	-		one sherd, probably pot 1	pot 1
F25-F28	43	C	5	82	-			
F25-F28	43	B	1	16	-		porous light sherd, up to 14 mm thick, grey fabric with flint temper, over-fired ?waster or burnt	
F30	48	D	23	178	-		miscellaneous sherds, none burnished	
F30	48	E	19	171	-	bowl	sherds, sand-tempered with occasional flint, highly burnished on both sides with black surfaces from a carinated pot, probably part of vessel F27 finds no 57	
F30	48	C	2	43	-		2 joining sherds, smoothed or burnished external surfaces	
F30	48	D	12	232	-		probably all part of one pot	
F30	48	D	1	5	0.03	open bowl	flat rim sherd from an open bowl	pot 7

Feature	Finds number	Fabric	Sherds	Weight (g)	eve (% rim)	Vessel	Comments	Pot (cut)
F25	58	E	1	12	-		sherd from base of pot (almost certainly pot 1)	
F25	58	B	3	22	-			
F25	58	C	2	15	-			
F25	58	V	1	17	-	bowl	body sherd	pot 4
F25-F31	50	E	1	6	0.04		rim of jar, with laminating, smoothed dark brown surface	pot 5
F25-F31	50	C	1	10	0.05		jar or bowl with upright rim, smoothed, brown, exterior surface	pot 6
F25-F31	50	E	2	16	-		part of pot 1	pot 1
F25-F31	50	C	3	15	-		sherds from thin-walled (3-4 mm) vessel(s), smoothed or burnished exteriors, 2 smoothed internally	
F25-F31	50	D	12	68	-			
F30	54	E	24	190	-		probably part of pot 1, includes large rim sherd	pot 1
F30	54	C	2	10	-		sherds from thin-walled (3-4 mm) vessel(s), smoothed or burnished exteriors smoothed internally	
F30	54	D	6	79	-		sparse-moderate flint, rough surface	

Appendix 2: the Late Iron Age and Roman pottery

by S Benfield

The pottery was recorded using the Roman pottery fabric type series devised for *CAR* **10** and the pot forms were recorded using the Camulodunum (Cam) Roman pottery form type series (Hawkes & Hull 1947 and Hull 1958) together with the Chelmsford Roman pottery type series (Going 1987). The pottery fabrics in *CAR* **10** are recorded as two-letter codes and the full fabric names for each fabric are listed in Table 5 (below) with the addition of Fabric GTW (grog-tempered wares). All of the Roman pots have been illustrated (Fig 11).

Table 5: Roman pottery fabric codes and the corresponding fabric name used in this report.

Fabric code	Fabric name
GB	BB2: black-burnished ware, category 2
GTW	Late Iron Age grog-tempered ware
GX	other coarse wares, principally locally-produced grey wares
HZ	large storage jars and other vessels in heavily-tempered grey wares
KX	black-burnished ware (BB2) types in pale grey ware

Fabric descriptions other than Fabrics contained in *CAR* **10**
Fabric GTW: grog-tempered wares
Generally thick sherds with patchy red-brown to dark-brown surfaces. Fabric contains various quantities of crushed fired clay (grog) and varies from grey to brown.

Table 6: Late Iron Age and Roman pottery by fabric type for each feature.

feature	finds number	CAR 10 fabric	sherd quantity	weight (g)	eve	comments	pot dated
F25	44	GX	14	301	0	Cam 281 narrow-necked flask with small footring and two rouletted bands around shoulder, part of shoulder together with all of lower part of vessel whole; also there are several detached shoulder sherds and part of the neck and rim; fine sandy red-brown fabric with slightly abraded grey surfaces	late 2nd-4th century
F25	45	GB	-	279	1.00	Cam 39B dish, plain, whole pot although there is a small chip missing from rim which has spalled away a small area of the outside of the dish; red-brown fabric with black-burnished surfaces	early 2nd to mid-late 3rd century
F25	46	KX	-	152	1.00	Cam 39B dish, although quite narrow in relation to its depth and could have been used as a cup; whole pot although the top of the rim is degraded or has a number of abraded chips or worn down patches in several places; also there is an old chip missing from one side which has spalled away a small area of the inner surface of the pot; grey fabric with burnished grey surfaces	mid 2nd-3rd century
F25	47	GX	-	154	1.00	Cam 307 (Going (1987) type E2) bowl with lid-seated everted rim, whole pot; several abraded chips or areas of damage to one side of rim; spaced around the inward-sloping rim are four groups of two parallel lines orientated towards the centre of the pot and which have been scratched into the surface after firing; grey fabric with grey surfaces; there is a faint trace of a pale slip or wash on the upper half of the pot and on the inner rim	late 2nd-4th century
F25	77	HZ	1	744	0.20	single large sherd (recently broken in 2) from a Cam 230 large bowl; surface has degraded and is crazed with numerous small cracks, body faintly rilled especially below shoulder	1st-early 2nd century
F25-F31	50	GTW	1	10	0.04	externally burnished rim sherd from a jar or bowl	Late Iron Age

Appendix 3: catalogue of the non-kiln medieval pottery and later pottery

by H Brooks

Table 7: pottery – quantity and weight by context.

Finds no	Context	Qt	Wt (g)	Comments/date	Context type
1	F1	4	24	Fabric 20 (medieval sandy grey ware)	post-medieval field boundary ditch
1	F1	6	50	Fabric 40 (PMRE)	post-medieval field boundary ditch
1	F1	1	9	Fabric 48e (yellow ware), mid 19th century	post-medieval field boundary ditch
1	F1	1	3	Fabric 48d (modern ironstone), 19th-20th century	post-medieval field boundary ditch
16	F1	13	34	Fabric 48d (modern ironstone) plate fragments, with embossed lettering on rim A [D?] and DEFO..	post-medieval field boundary ditch
16	F1	1	1	Fabric 20 (medieval sandy grey ware) or 20d, residual here	post-medieval field boundary ditch
16	F1	1	14	Fabric 40 (PMRE), 16th-18th century	post-medieval field boundary ditch
72	F1	1	12	Fabric 40 (PMRE) glazed body sherd from large vessel, probably later fabric type, 17th-18th century	post-medieval field boundary ditch
3	F2	1	12	Fabric 40 (PMRE), 16th-18th century	?pond filled in during 20th century
17	F2	1	4	very small Fabric 40 (PMRE) glazed body sherd, probably later fabric type, 17th-18th century	?pond filled in during 20th century
17	F2	1	1	very small Fabric 48d (modern ironstone), 19th-20th century	?pond filled in during 20th century
70	F2 + F3	1	38	Fabric 40 (PMRE) glazed body sherd from large vessel, probably later fabric type, 17th-18th century	area of debris between ?pond F2 and linear feature F3
6	F3	1	16	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, 12th-13th century	post-medieval linear feature
11	F3	1	1	Fabric 48e (yellow ware), 19th century	post-medieval linear feature
11	F3	1	2	Fabric 40 (PMRE), 16th-18th century	post-medieval linear feature
12	F3	1	22	Fabric 40 (PMRE), 16th-18th century	post-medieval linear feature
12	F3	1	3	Fabric 20 (medieval sandy grey ware), 13th-14th century	post-medieval linear feature
12	F3	1	9	Fabric 21 (sandy orange ware)	post-medieval linear feature
69	F3	3	40	Fabric 40 (PMRE), 16th-18th century	post-medieval linear feature
13	F4	1	6	Fabric 48d (modern ironstone), 19th-20th century	roadside ditch backfilled in 20th century
13	F4	2	37	Fabric 40 (PMRE), 17th-18th century	roadside ditch backfilled in 20th century
14	F4	1	16	not sure what this is from; very coarse, almost tile-like fabric, but too thin and curved for a tile – a rough vessel of some type, unglazed but with external dark grey coating (chimney pot?); generally within Fabric 40 category, and probably 17th-19th century	roadside ditch backfilled in 20th century

		Qt	Wt (g)	Comments/date	Context type
Finds no	**Context**				
14	F4	1	10	Fabric 40 (PMRE) glazed body sherd, probably later fabric type, 17th-18th century	roadside ditch backfilled in 20th century
14	F4	1	3	Fabric 48d (modern ironstone)	roadside ditch backfilled in 20th century
15	F4	4	43	Fabric 48d (modern ironstone), 19th-20th century	roadside ditch backfilled in 20th century
15	F4	4	57	Fabric 40 (PMRE)	roadside ditch backfilled in 20th century
15	F4	2	38	Fabric 40a (Metropolitan slipware) rim	roadside ditch backfilled in 20th century
5	F4 upper fill	5	14	Fabric 48d (modern ironstone), 19th-20th century	roadside ditch backfilled in 20th century
5	F4 upper fill	1	26	Fabric 51a (late slipped kitchen ware), 19th-20th century	roadside ditch backfilled in 20th century
5	F4 upper fill	4	68	Fabric 40bl, black-glazed ware, 17th century	roadside ditch backfilled in 20th century
5	F4 upper fill	9	120	Fabric 40 (PMRE), 17th-18th century	roadside ditch backfilled in 20th century
15	F4, Sx 2	1	27	Fabric 40 (PMRE) glazed body sherd from large vessel, probably later fabric type, 17th-18th century	roadside ditch backfilled in 20th century
7	F5	1	8	Fabric 40 (PMRE) glazed body sherd from large vessel, probably standard fabric, 16th-18th century	post-medieval ditch
7	F5	2	7	small sherds of Fabric 13 (sandy orange ware), 13th-16th century	post-medieval ditch
40	F6	4	32	Fabric 40 (PMRE), very orange fabric, 17th-18th century	post-medieval linear with cobbled surface
3	F7	23	113	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, 12th-13th century	medieval ?stock-pen
18	F7	8	40	Sherds of Fabric 20 (medieval sandy grey ware), most of which may be Fabric 20d from kiln F12; one rim, B2 type and one with swirly combed exterior decoration	medieval ?stock-pen
19	F7	17	171	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	medieval ?stock-pen
20	F7	10	77	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, 12th-13th century	medieval ?stock-pen
20	F7	1	9	Flat-topped rim in a slightly flintier fabric than Fabric 20, possibly a Fabric 13s, 12th century	medieval ?stock-pen
21	F7	10	98	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	medieval ?stock-pen
22	F7	5	37	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, includes rim form B2, early 12th century	medieval ?stock-pen
33	F7	1	11	Roman everted rim?	medieval ?stock-pen
8	F8	3	40	Fabric 40 (PMRE), 16th-18th century	?pond filled in during 20th century
67	F8	1	6	Fabric 48e (yellow ware) sherd, mid 19th century	?pond filled in during 20th century
67	F8	1	246	neck and upper body of Fabric 45d (Frechen ware) jug; as this occurs with Fabric 48 (above) this may be a late piece	?pond filled in during 20th century
67	F8	1	49	Fabric 45d (Frechen ware) handle fragment	?pond filled in during 20th century

		Qt	Wt (g)	Comments/date	Context type
Finds no	**Context**				
67	F8	1	19	Fabric 45m (modern stoneware) body sherd, 19th-20th century	?pond filled in during 20th century
9	F9	2	4	Fabric 48d (modern ironstone), 19th-20th century	roadside ditch, backfilled in 20th century
9	F9	1	58	Fabric 51a (late slipped kitchen ware), 19th-20th century	roadside ditch, backfilled in 20th century
9	F9	11	350	Fabric 40 (PMRE), 17th-18th century	roadside ditch, backfilled in 20th century
9	F9	1	5	Fabric 40bl (black-glazed ware), 17th century	roadside ditch, backfilled in 20th century
9	F9	2	8	Fabric 45f (Westerwald stoneware)	roadside ditch, backfilled in 20th century
10	F10	1	18	Glazed Fabric 21 (sandy orange ware), 16th? century	post-medieval ditch
24	F11	3	31	Fabric 20 (medieval sandy grey ware), 13th-14th century	medieval ditch south of kiln F12
38	F11	1	24	Glazed Fabric 21? (sandy orange ware), no earlier than 16th century, possibly later	medieval ditch south of kiln F12
39	F11	20	391	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12; most is one vessel, a rounded jug similar to *CAR* **7**, figure 64.41, dated late 12th-late 13th century in Colchester	medieval ditch south of kiln F12
28	F16	14	78	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	narrow linear feature – ?plough furrow
29	F17	7	44	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	narrow linear feature – ?plough furrow
30	F18	61	408	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, 12th-13th century	narrow linear feature – ?plough furrow
31	F18	37	227	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	narrow linear feature – ?plough furrow
32	F19	27	92	Fabric 20 (medieval sandy grey ware), possibly 20d from kiln F12, including rim form B2, early 12th century in Colchester	narrow linear feature – ?plough furrow
76	F36	5	182	Fabric 40 (PMRE) inc a lid-seated rim and a rod handle	post-medieval demolition debris
76	F36	2	21	Fabric 40bl, black-glazed ware, 17th century	post-medieval demolition debris
73	L2	1	4	probably Fabric 35a (Mill Green ware), 13th-14th century	layer
totals		**362**	**3,668**		

Table 8: unstratified material.

Finds no	Context	Qt	Wt (g)	Comments/date
2	U/S	9	78	Unstratified mixture of Fabrics 20, 40, 40a, 45, 48d
23	U/S	1	9	Fabric 20 (medieval sandy grey ware), possibly Fabric 20d from kiln F12
27	U/S	17	331	An unstratified mixture of Fabrics 21, 40, 46, 45f
50	U/S	1	3	Small sherd of fabric 13 (sandy orange ware), 13th-16th century
50	U/S	1	2	Small sherd of coarse ware, probably Hedingham ware (Fabric 20d, medieval sandy grey ware) from kiln F12
68	U/S	2	401	Rim and looped handle in glazed Fabric 40 (PMRE) sherds from a very large vessel
71	U/S	2	36	Fabric 40 (PMRE), 16th-18th century
totals		**33**	**860**	**TOTALS**

Appendix 4: catalogue of the ceramic building material

by H Brooks

Table 9: ceramic building material.

Finds no	Feature or layer no	Description	Weight (g)	Group date
4	F14	Four late 18th- or early 19th-century frogless bricks, 210 x 100 x 60 mm. These are overfired, technically wasters. Reused in pathway F14. Three discarded, one (1.8kg) kept as sample.	9,000	18th-19th century
13	F4 Sx 2 upper fill	Post-medieval brick fragment, 230g, discarded; Tudor brick fragment 44mm thick, 311g, retained; 7 indeterminate brick/tile fragments, 177g, discarded; 1 peg-tile fragment, no hole, 23g, discarded.	741	post-medieval
67	F8	Tudor-type brick fragment, 58mm thick, 419g, overfired and partially vitrified; peg-tile with square hole, 345g.	764	post-medieval
37	F13	Small daub fragment, 2g; indeterminate brick/tile fragment, 3g.	5	?post-medieval
31	F18	Two indeterminate brick/tile fragments, 13g.	13	probably post-medieval
2	U/S	Six post-medieval brick fragments, 500g (discarded); six peg-tile fragments (no holes), 114g (discarded); three indeterminate brick/tile fragments, 16g (discarded); two pieces of sandstone, 272g; 1 piece of buff tile, probably not Roman, 96g; 2 pieces of 38mm-thick tile or brick, 724g, fabric not recognised.	1,722	probably post-medieval
1	F1 upper fill	Two peg-tile fragments, 50g discarded; 3 indeterminate fragments, 15g discarded; 1 brick/tile 40mm thick, 140g – thin Tudor; 3 brick fragments in buff fabric, one marbled with red streaks, 300g, fabric not recognised – local post-medieval fabric presumably.	505	post-medieval
23	U/S	Peg-tile fragment, 12g, discarded.	12	medieval or post-medieval
68	U/S	Peg-tile fragment with circular peg hole, 416g, discarded; thin brick, 21-30mm thick, ?shaped, 137g.	553	medieval or post-medieval

Finds no	Feature or layer no	Description	Weight (g)	Group date
69	F3	Two peg-tile fragments, 134g, discarded.	134	post-medieval
4	F14	Post-medieval brick fragment, frogless, ?? x 108 x 46mm, 1,128g; presumably post-medieval brick fragment in buff fabric, 289g.	1,415	post-medieval
6	F3	Three peg-tile fragments, one unusually thick at 16mm, another 14mm, and a third 10mm thick, 116g.	116	medieval or post-medieval
40	F6	Two post-medieval brick fragments, gritty dark red fabric, 121g, discarded; seven peg-tile fragments, thicknesses vary from 12-14mm, 357g (1 sample kept, 120g, rest discarded); four pieces of buff brick 42mm thick, 858g (1 kept, 677g, rest discarded); three tiles in the same fabric, 140g, thicknesses 20mm (x 2), 24mm.	1,467	post-medieval
39	F11	Burnt tile fragment, 22mm thick, 114g.	114	post-medieval
43	F25-F28	Post-medieval brick fragment, 26g; burnt brick or tile fragment in sandy fabric, uncertain date, 39g; sandstone piece, 24g.	89	post-medieval
17	F2	Peg-tile fragment with circular hole, 47g, discarded.	47	medieval or post-medieval
16	F1	Post-medieval brick fragment 44mm thick, 178g discarded.	178	post-medieval
5	F4	Two post-medieval brick fragments, 290g discarded; one tile/brick fragment 30mm thick, 151g; 1 buff brick fragment, 133g, 50mm thick; 1 brick with pierced holes grouped in 4s at the bottom of 22mm wide depressions – air brick?, post-medieval, 97g; two peg-tile fragments, 60g, 14mm and 18mm thick, discarded.	731	post-medieval
10	F2	Two peg-tiles, 41g, discarded; 3 indeterminate brick/tile fragments, 47g, discarded.	88	post-medieval
73	L4	Peg-tile fragment, 3g, discarded; post-medieval brick, 35mm thick, 147g.	170	post-medieval
15	F4 Sx 2	Post-medieval brick fragments, frogless, ?? x 85 x 55mm, and 55mm thick, 1,292g; five post-medieval brick lumps, 677g, discarded; 3 peg-tiles, 132g, discarded.	2,091	post-medieval
7	F5	Peg-tile fragment, 13g, discarded.	13	medieval or post-medieval
11	F3	Three indeterminate scraps 27g discarded; thin tile fragment in buff fabric, 15mm thick, 81g.	106	post-medieval
14	F4	Air-brick fragment (see finds no 6 above), 52g.	52	?post-medieval
70	between F2 and F3	Peg-tile fragment, 50g, discarded.	50	post-medieval
74	F35	Buff brick fragment 588g, ?? x 114 x 46mm, very sharp edges, so certainly post-medieval or modern; post-medieval brick scrap, 27g, discarded; peg-tiles, 11mm, 15mm and 15mm thick, 73g (1 kept, 40g, rest discarded).	688	post-medieval or modern
76	F36	Two peg-tiles, 18mm thick and 13mm thick, discarded.	56	medieval or post-medieval
		total	**20,920**	

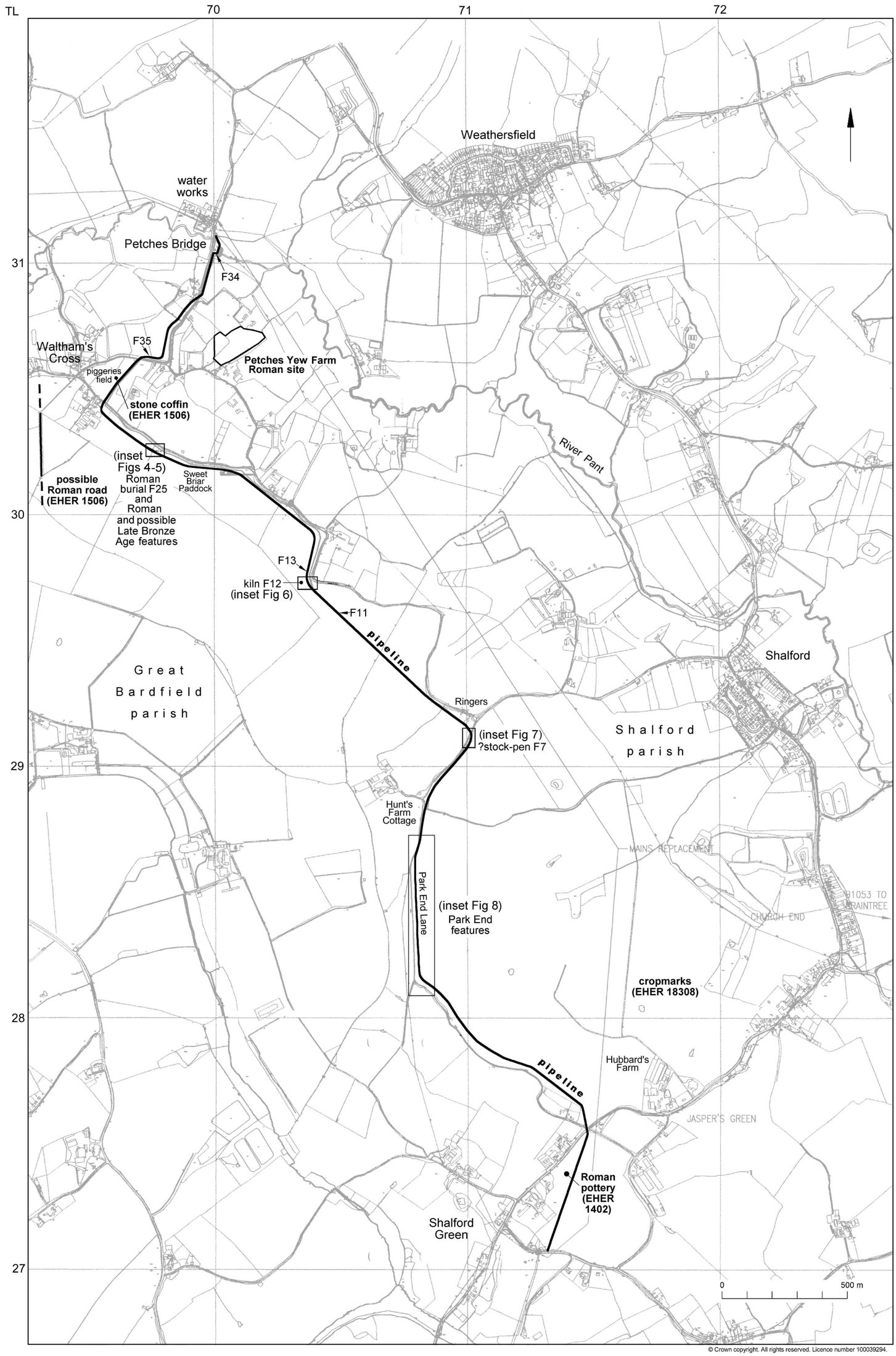


Fig 1 Pipeline location, main features and surrounding archaeology.

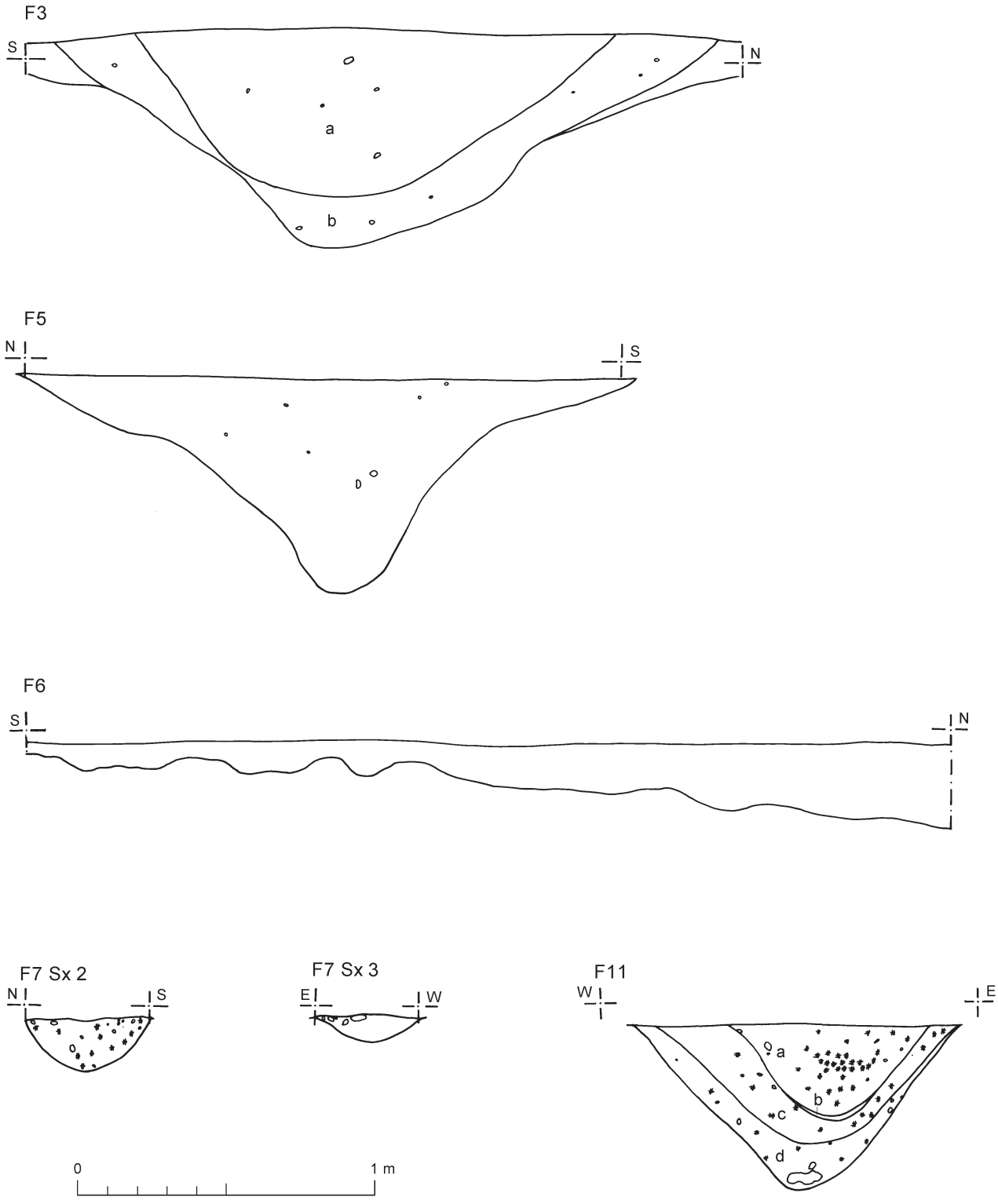


Fig 2 F3, F5, F6, F7, F11: sections.

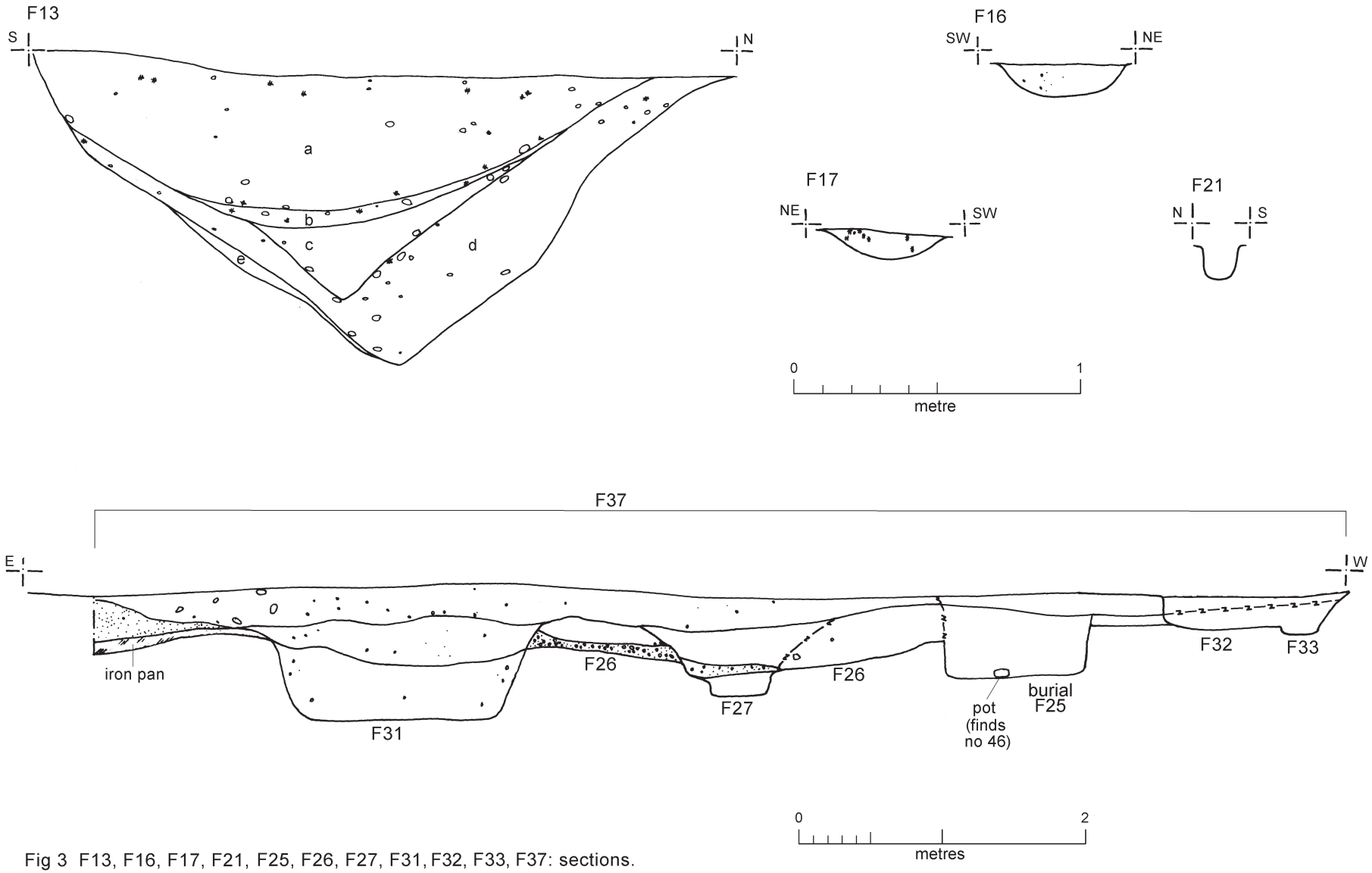


Fig 3 F13, F16, F17, F21, F25, F26, F27, F31, F32, F33, F37: sections.

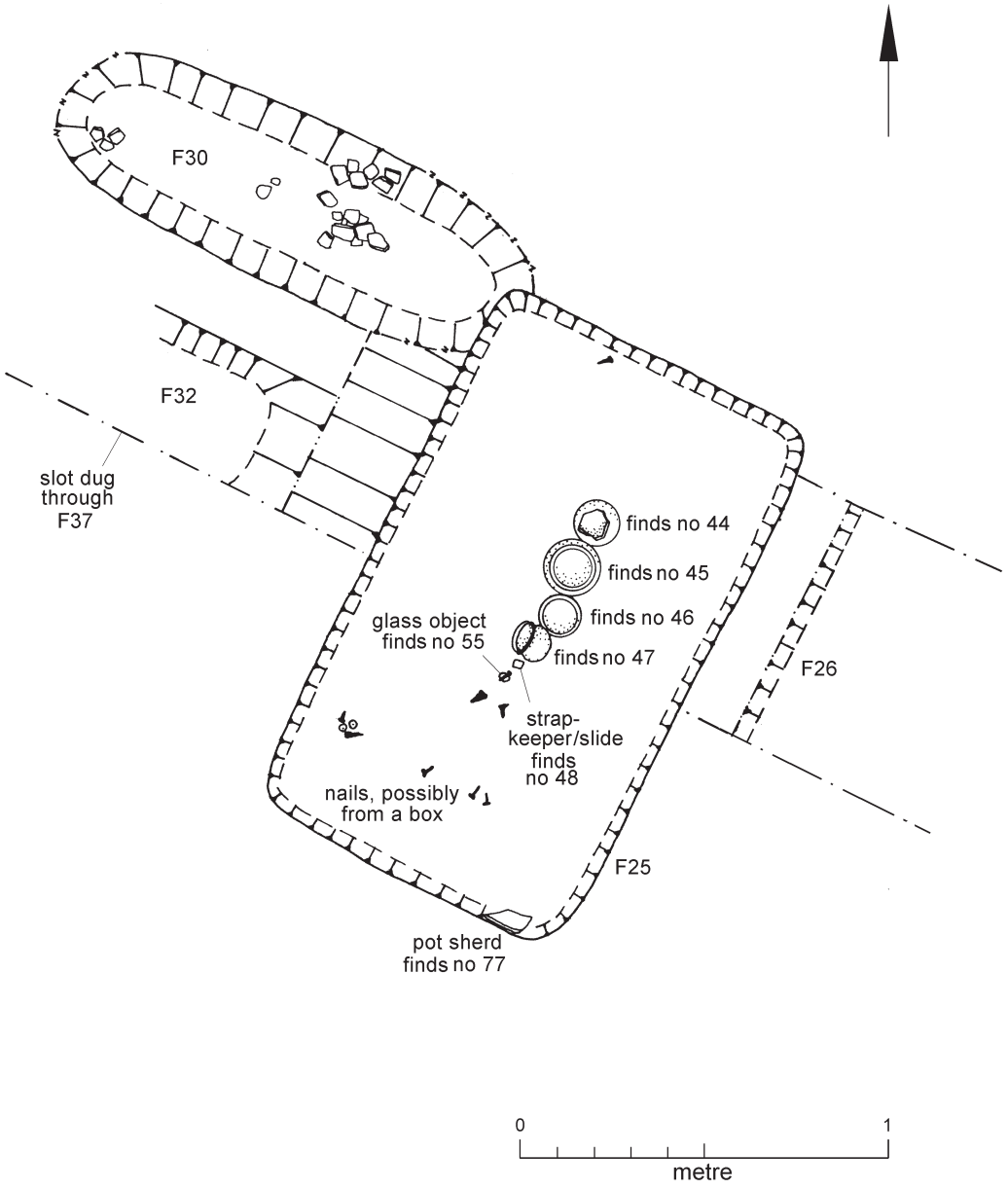


Fig 4 Roman burial F25: plan.

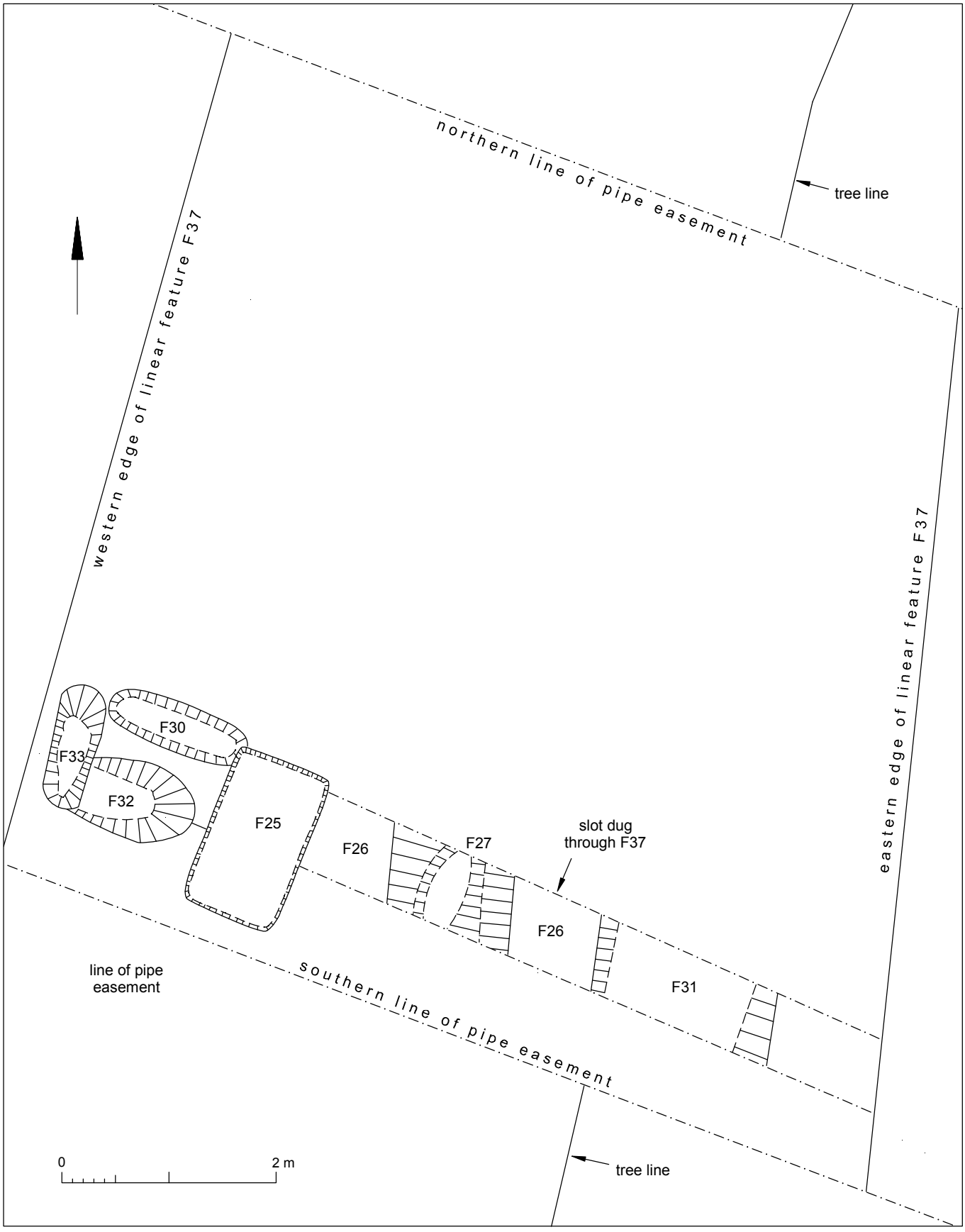
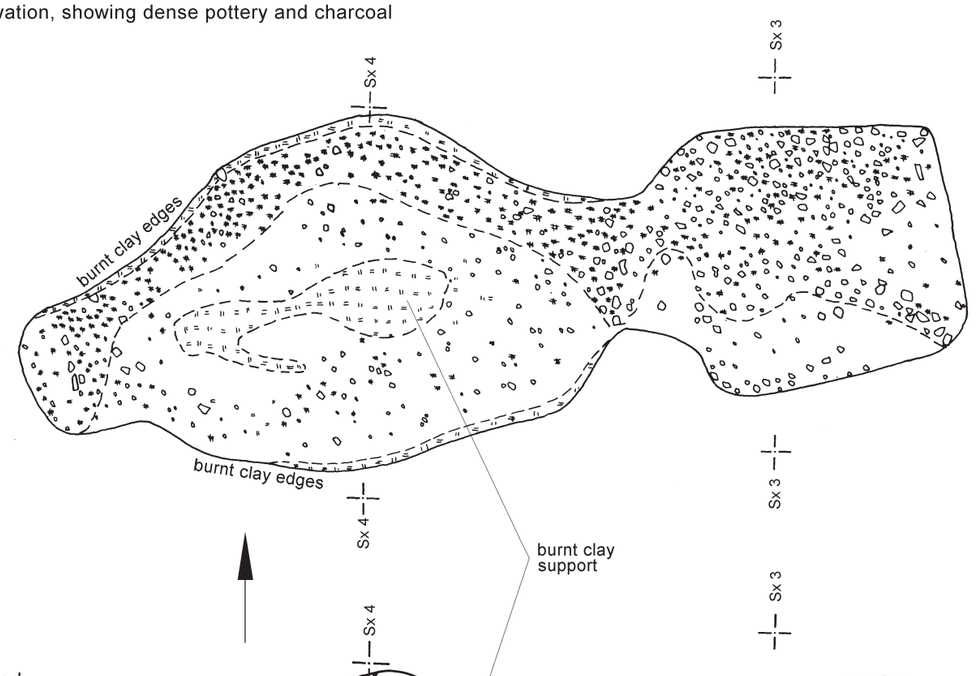


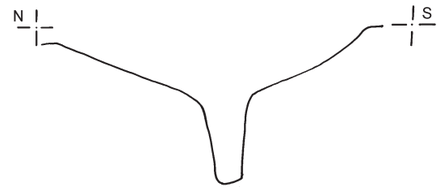
Fig 5 F25-F33: plan.

Plan of F12 before excavation, showing dense pottery and charcoal

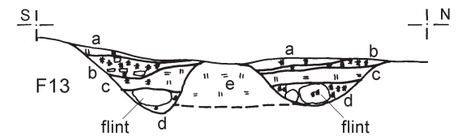


Sx 2: profile of western stokehole

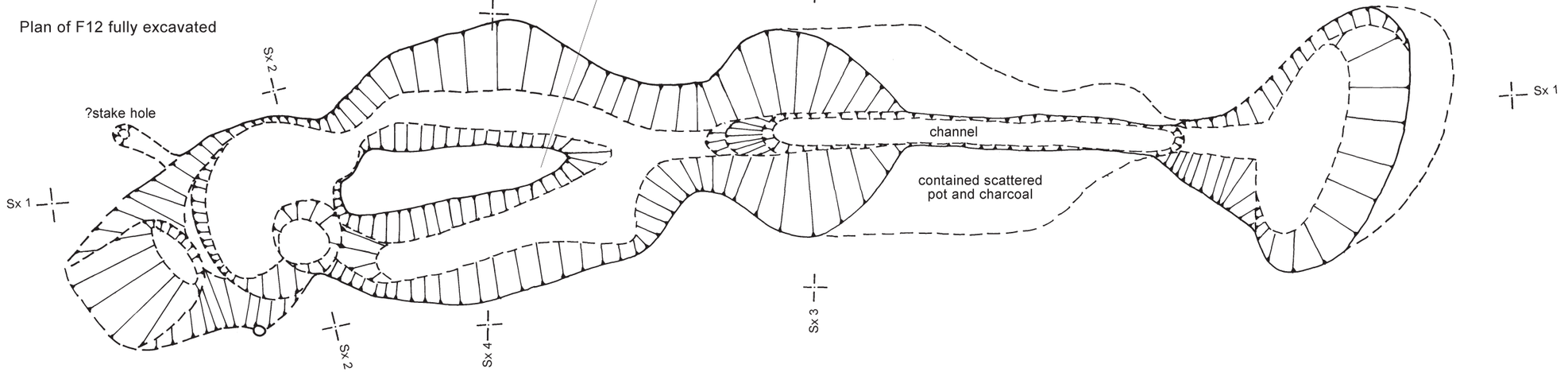
Sx 3: profile of eastern stokehole and channel



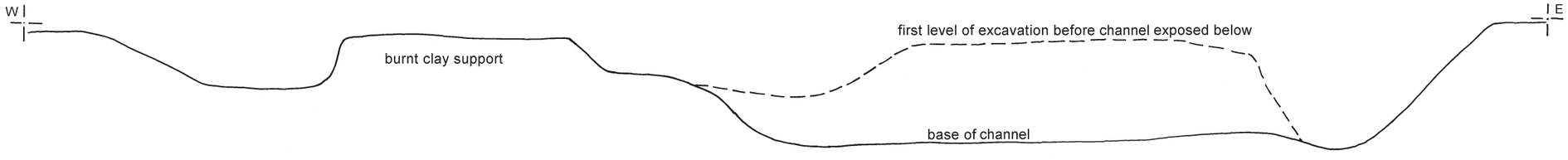
Sx 4: section through firing chamber



Plan of F12 fully excavated



Sx 1



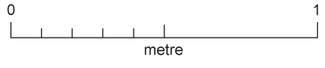


Fig 6 Kiln F12: plans and sections.

pottery clay charcoal

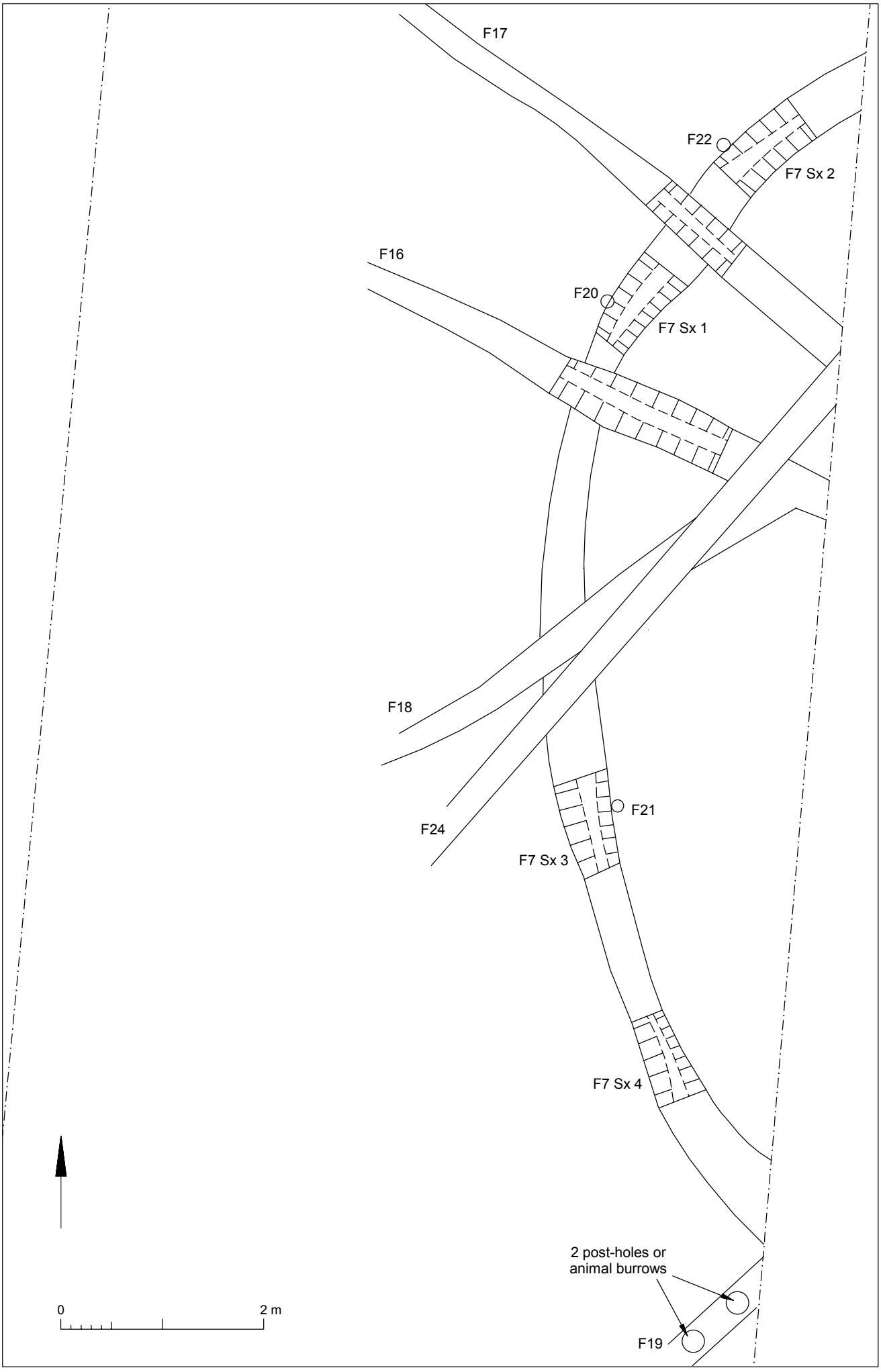


Fig 7 ?Stock-pen F7: plan.

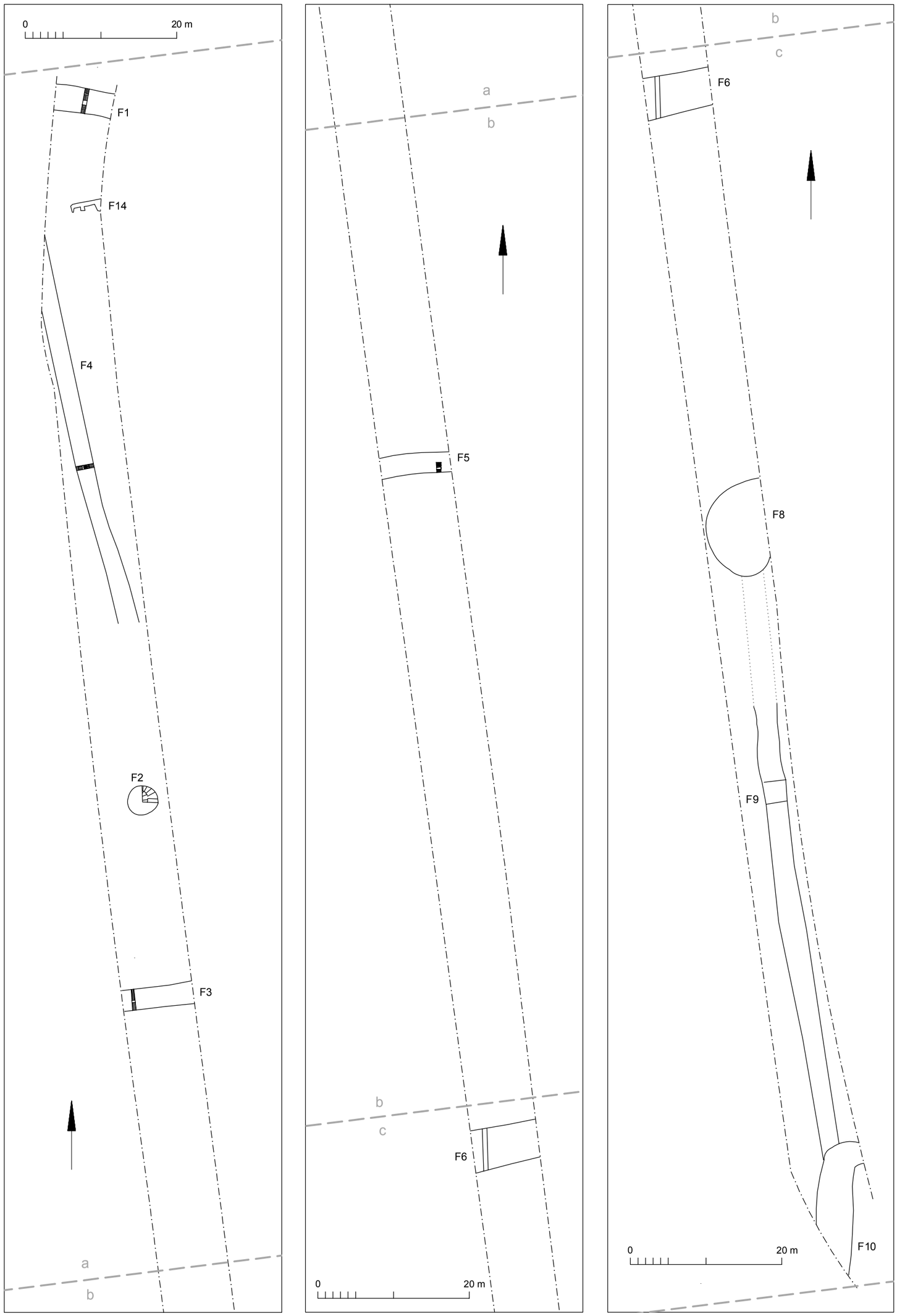


Fig 8 Park End features: plans F1-F6, F8-F10, and F14.

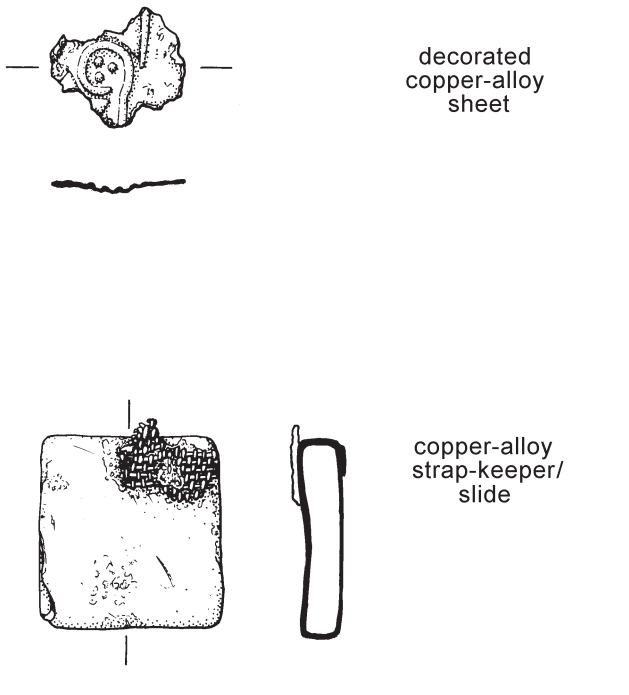


Fig 9 Burial F25: small finds.

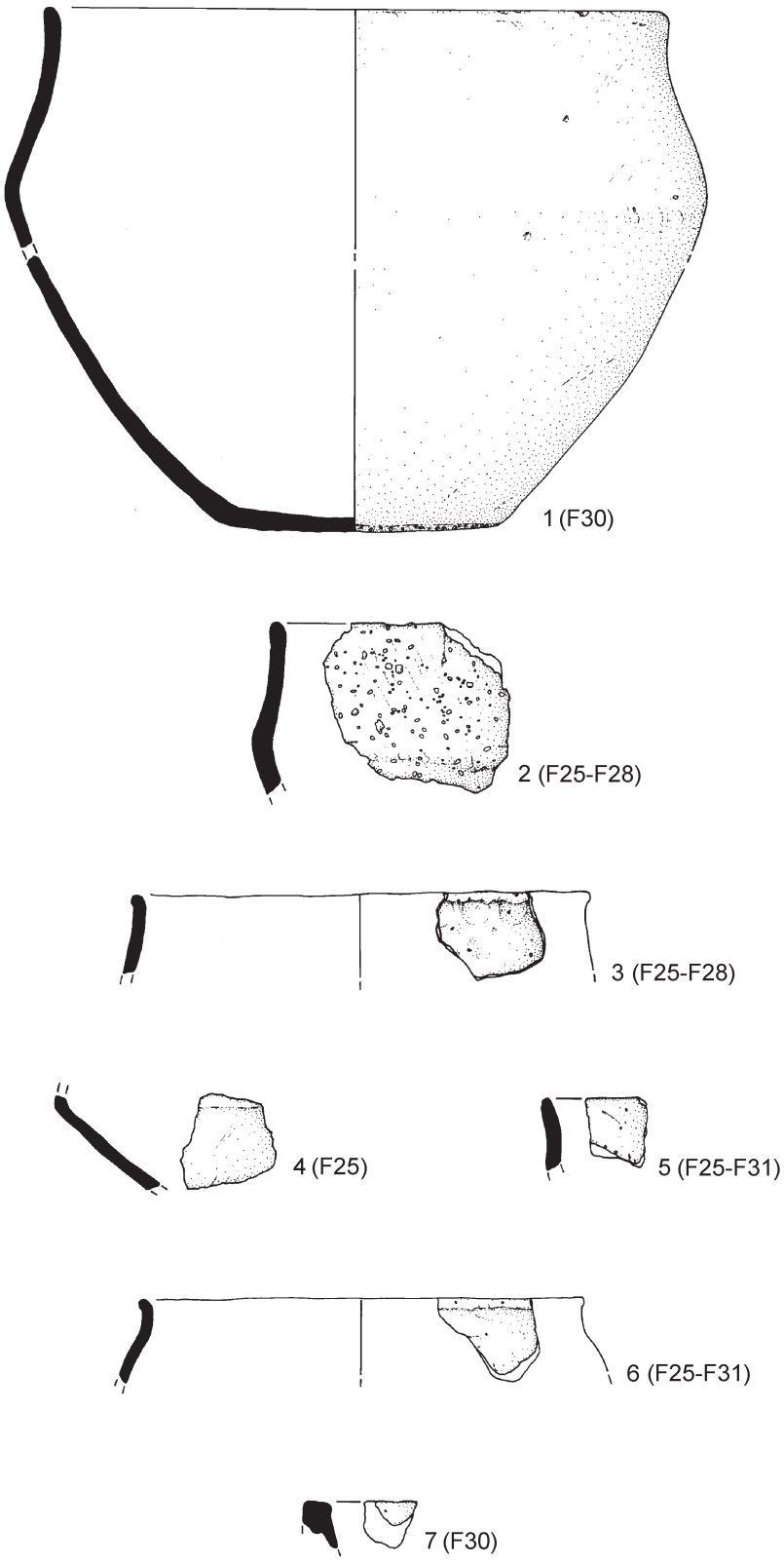


Fig 10 F25-F31: prehistoric pottery.

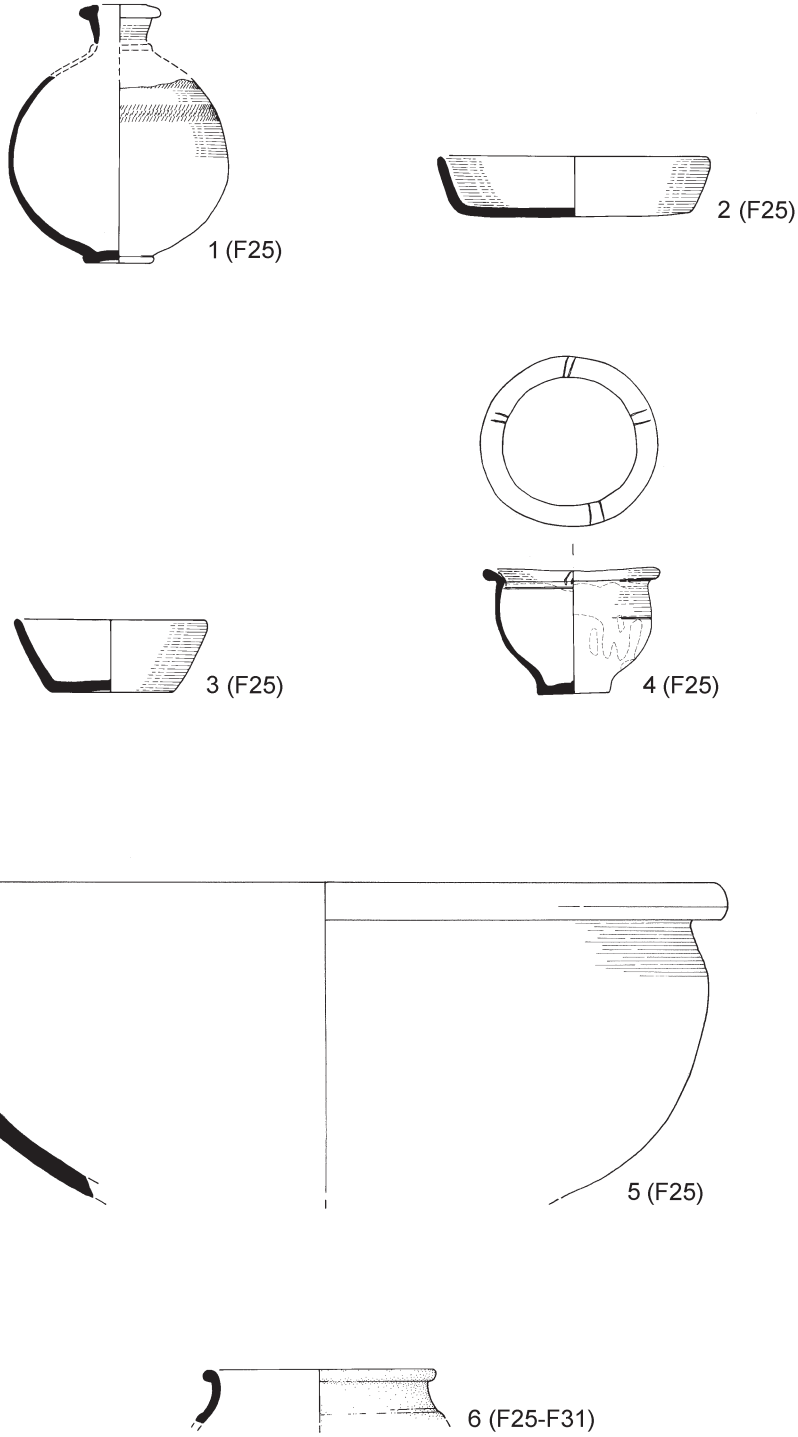


Fig 11 F25-F31: Roman pottery.

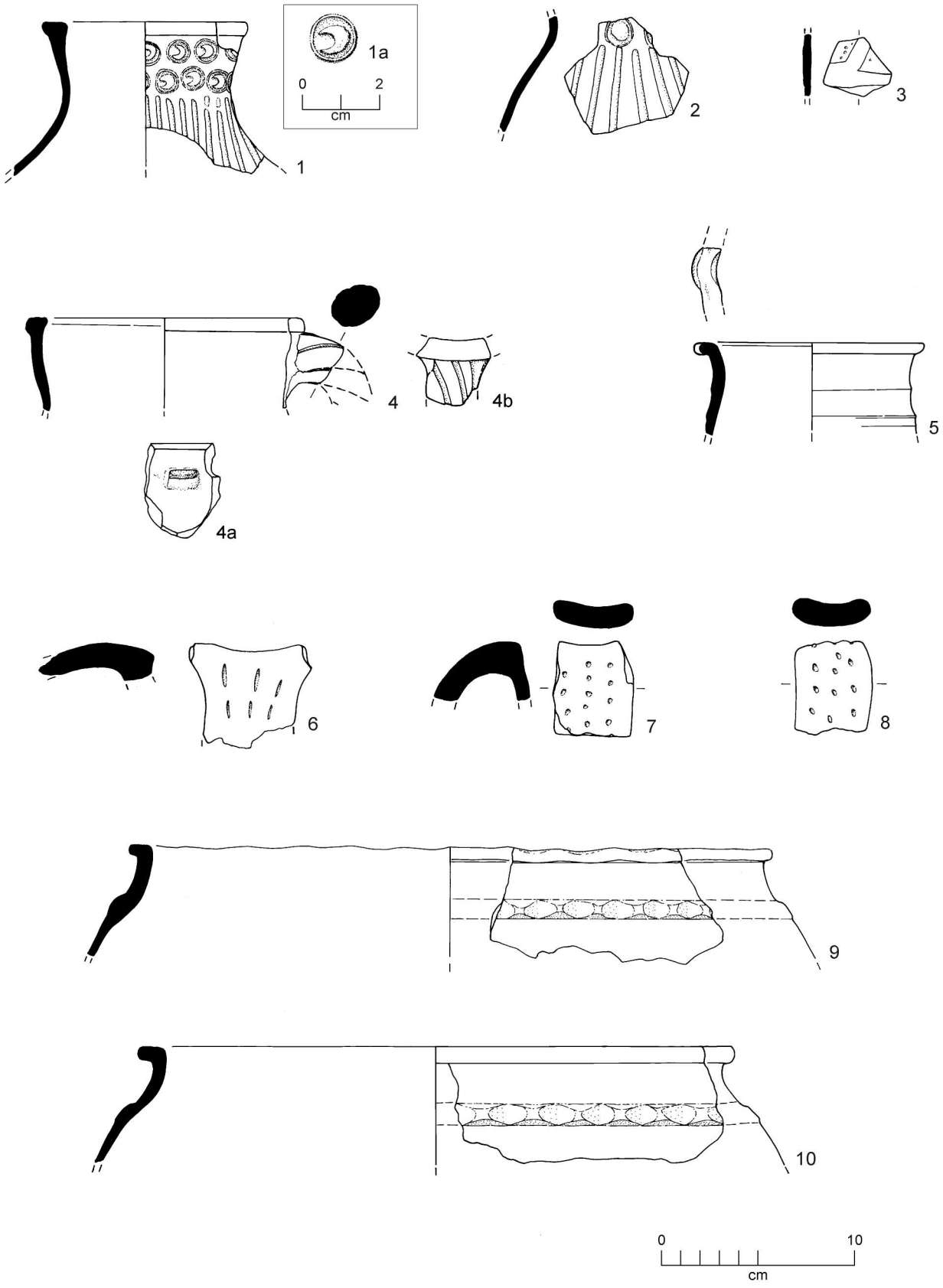


Fig 12 Kiln F12: medieval Hedingham ware pottery.

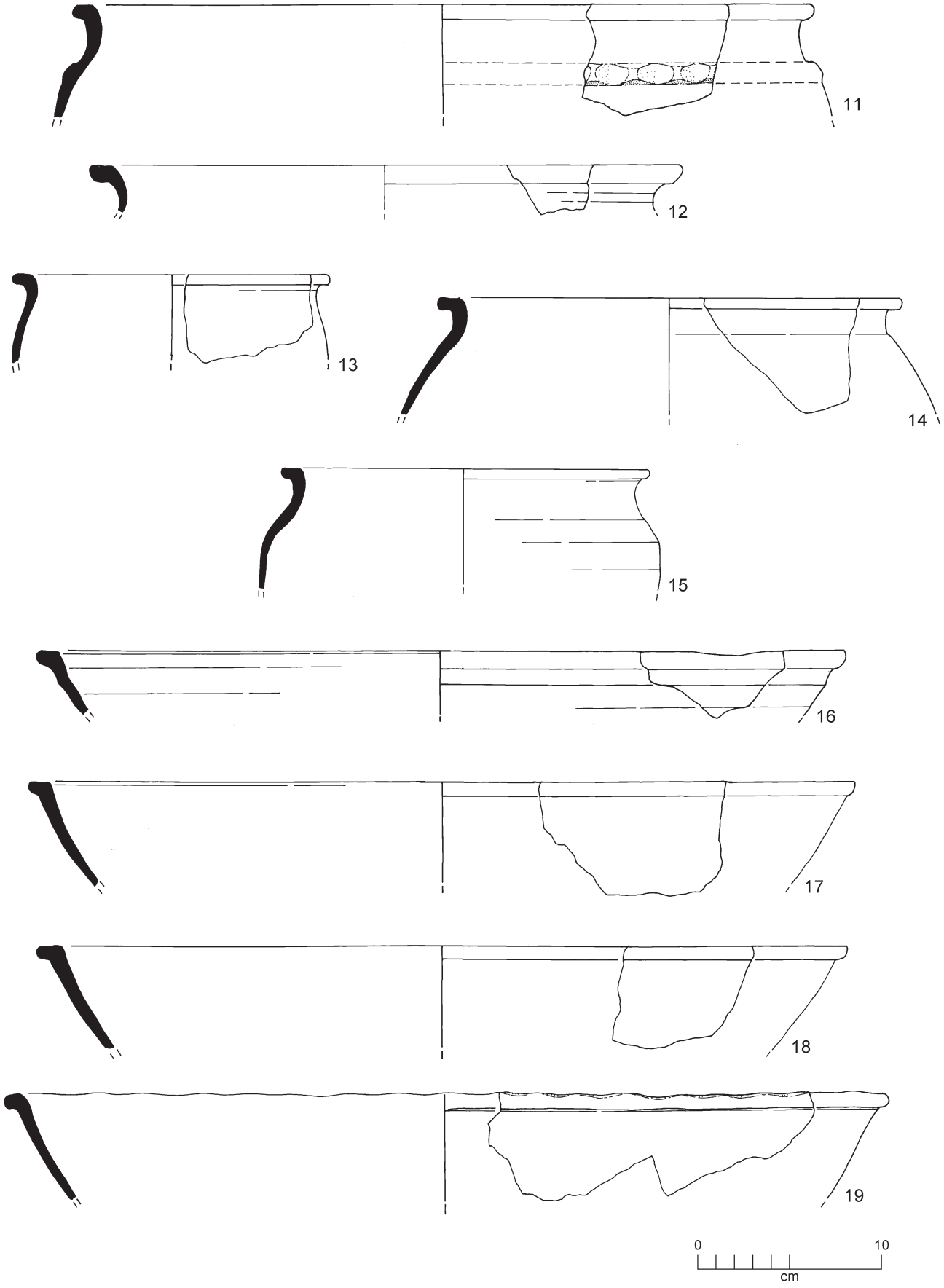


Fig 13 Kiln F12: medieval Hedingham ware pottery.

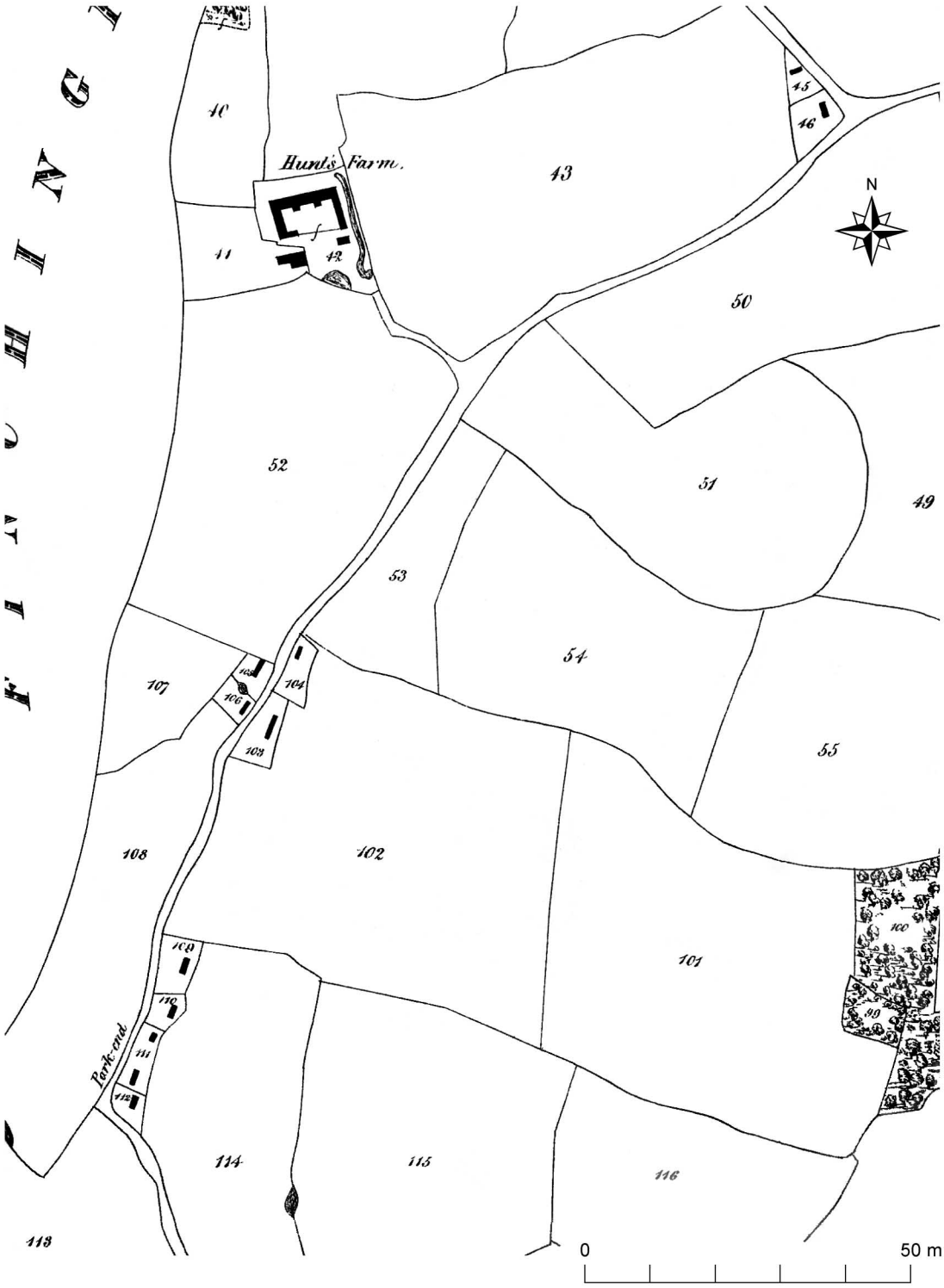


Fig 14 Extract from the tithe map of Shalford (1846) showing Park End (ERO D/P 113/27/2).

Essex Historic Environment Record/
Essex Archaeology and History

Summary sheet

<table>
<tr><td colspan="2">Site address: an Anglian Water mains replacement scheme from Shalford Green in Shalford to Petches Bridge in Great Bardfield, Essex</td></tr>
<tr><td>Parishes:
Shalford and Great Bardfield</td><td>District: Braintree</td></tr>
<tr><td>NGR:
TL 6997 3103 to TL 7128 2707</td><td>Site code:
HEM site code GBAPS 05</td></tr>
<tr><td>Type of work:
Watching brief and some excavation</td><td>Site director/group:
Colchester Archaeological Trust</td></tr>
<tr><td>Date of work:
December 2005-March 2006</td><td>Size of area investigated:
5.25km long and between 7 and 9m wide</td></tr>
<tr><td>Location of finds/curating museum:
Braintree Museum accession code BRNTM 2005.35</td><td>Funding source:
Anglian Water</td></tr>
<tr><td>Further seasons anticipated?
No</td><td>Related EHER nos:
1505, 1506, 14201, 18308</td></tr>
<tr><td colspan="2">Final report: CAT Report 374 and summary in EAH</td></tr>
<tr><td colspan="2">Periods represented:
Late Bronze Age, Late Iron Age, Roman, medieval, post-medieval</td></tr>
<tr><td colspan="2">Summary of fieldwork results:
CAT carried out archaeological monitoring and limited excavation along the line of a water-main replacement pipeline, to the north-west of Braintree. The northern end of the pipeline, in Great Bardfield parish, produced evidence for Late Bronze Age and Roman activity including a Roman burial. In the central part of the pipeline, a kiln was recorded which was producing Hedingham ware pottery from the earlier 13th to earlier 14th century. Nearby, but within Shalford parish, a medieval ?stock-pen was recorded. Also, archaeological evidence from the central southern part of the pipeline in Shalford parish corresponded with cartographic evidence for the now-vanished hamlet known as ‘Park End’.</td></tr>
<tr><td colspan="2">Previous summaries/reports:
None</td></tr>
<tr><td>Author of summary:
Kate Orr</td><td>Date of summary:
April 2007</td></tr>
</table>