

**An archaeological excavation
in the 'Danish Camp'
Iron Age defended settlement,
Shoebury Garrison,
Shoeburyness, Essex
March 2013**



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**commissioned by
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1 Summary

Following an evaluation in January 2013 (CAT Report 680), an excavation was carried out in March of the same year on a 0.12-hectare plot of land on the junction of Mess Road and Chapel Road in the former Shoebury garrison. This site is located within the area of the defended Iron Age settlement known (and scheduled) as the 'Danish Camp'. Previous archaeological investigations undertaken on the extant ramparts and within the internal area of the enclosure have dated the main phase of activity at the 'Danish Camp' to the Middle Iron Age. This dating could be seen as broadly supported by the results of this excavation, as there appears to have been an increase in occupation density here during the Middle Iron Age period, although the division of land by ditches and settlement on this area appears to have started in the Late Bronze Age or Early Iron Age.

The earliest evidence of human activity identified dates to the Late Neolithic/Early Bronze Age and is represented by a radiocarbon date on burnt wood and a possible sherd of Beaker pottery from one pit. A small assemblage of Middle Bronze Age Deverel-Rimbury pottery also derived from one feature. As already stated, the main period of activity dates to the Late Bronze Age and Iron Age, especially the Middle Iron Age. The earliest features are pits and exposed lengths of ditches. Similar features are associated with the Middle Iron Age occupation, but with the addition of two round-houses defined by parts of curvilinear gullies, a probable well, and lines of post-holes, some possibly representing fence-lines.

Later-dated finds are sparse, although a very few sherds of Late Iron Age/Roman pottery indicate some limited activity during that period. Otherwise, the area appears to have maintained an essentially open, rural character until the mid-19th century when the garrison was established.

2 Introduction (Figs 1-2)

- 2.1 This is the archive report on the archaeological excavation carried out by the Colchester Archaeological Trust (CAT) on the former car-park site at the junction of Mess Road and Chapel Road in the former Shoebury garrison, Shoeburyness, Essex.
- 2.2 The site is located on the eastern side of Shoeburyness (NGR TQ 9387 8460), less than 100 m from the sea and comprising a roughly rectangular plot of land bounded by Chapel Road to the north, Mess Road to the east, and the gardens of the former Commandant's House on the other two sides. It is located within the southern half of the interior of the scheduled archaeological site known as the 'Danish Camp', but which is actually an Iron Age defended settlement site (county monument no 29444).
- 2.3 The site is situated at about 8.7 m above Ordnance Datum. The underlying geological deposits are Boyn Hill Series sands and gravels which lie above the London Clay.
- 2.4 The plot of land was previously used for visitor parking and the storage of building materials. Ordnance Survey maps show buildings on the site up until the 1980s. Part of one of these buildings was located over the western part of the development area.
- 2.5 The proposed development comprises the construction of two new houses ('house plot'), each with a large detached garage and with shared vehicular access from Mess Road (an area of approximately 700 square metres).
- 2.6 This archaeological excavation follows on from an evaluation by trial-trenching undertaken on the site by CAT in January 2013, during which two trial-trenches were excavated within the footprints of the proposed dwellings (CAT Report 680). Ten archaeological features were uncovered in the trenches, including four ditches (one of which was a re-cut of an earlier ditch) and four small pits/post-holes. The pottery-dating evidence indicated that the features uncovered represented activity on the site from the Early Iron Age to the Middle Iron Age. Given that previous excavations undertaken within the interior of the 'Danish

Camp' have shown that the Middle Iron Age was the principal period of occupation, the findings of the evaluation were considered to be of considerable significance.

- 2.7 All archaeological work was carried out in accordance with a Method Statement for archaeological excavation produced by CAT (CAT 2013) and approved by English Heritage. In addition to the Method Statement, all fieldwork and reporting was undertaken in accordance with the Colchester Archaeological Trust's Policies and procedures (CAT 2012a). This report mirrors standards and practices contained in the Institute for Archaeologists' *Standard and guidance for archaeological excavation* (IfA 2008a) and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (IfA 2008b). Other sources used are *Management of Research Projects in the Historic Environment* (MoRPHE 2006), *Standards for field archaeology in the East of England* (EAA 14), and *Research and archaeology revised: a revised framework for the East of England* (EAA 24).

3 Archaeological background (Fig 2)

The site is located within the scheduled area of an Iron Age settlement enclosed by defensive ramparts (English Heritage Monument ref. EX140), parts of which are still visible to the south-west and north-west of the development area. The site has traditionally been called the 'Danish Camp', as *The Anglo-Saxon Chronicle* records that Scandinavian raiders made a fortification at Shoebury following their defeat by Alfred at Benfleet further down the River Thames in AD 894 (Swanton 1996, 87). To date, no evidence of a Viking presence has been identified within the area of the enclosure, though the re-occupation of the earthwork by the Danes is not out of the question.

The settlement was enclosed by a defensive earthen bank which was constructed from material excavated from an external ditch. The reduced bank of the rampart survives in two places but, elsewhere, the circuit of the bank has been flattened.

The original line of the enclosure continues north-east from the extant ramparts, coinciding with the southern boundary of the Shoeburyness Hotel site, where they turn east along the line of Rampart Street.

The infilled external ditch of the rampart has been excavated in two locations in recent times, firstly by Gifford and Partners in 1998 as a joint venture between English Heritage and Southend-on-Sea Borough Council (Gifford and Partners 1999) and, subsequently, by the AOC Archaeology Group during evaluation work at the Shoeburyness Hotel site (AOC 2005). Investigations in 1876 described the ditch as being 12 m wide and 3 m deep; however, the more recent investigations found the ditch to be a more modest width of 4-5 m (*ibid*).

Inside the enclosure, previous archaeological investigations have demonstrated that significant archaeological remains survive and that the main period of settlement was in the Middle Iron Age (c 400 BC to 100 BC). These investigations include a programme of geophysical survey, test-pitting and evaluation work undertaken by Gifford and Partners in 1998 (Gifford and Partners 1999) and an excavation and watching brief on the North Camp site by Pre-Construct Archaeology in 2003/4 and 2005 (Mattinson 2005). These revealed a dense pattern of well-preserved Iron Age features, including evidence of round-houses, other post-built structures, ditches, clay-lined storage pits and numerous post-holes and rubbish-pits. In addition, evidence for activity in the Mesolithic, Neolithic, Bronze Age and Roman periods was also uncovered.

Modern development of the area began in the 1850s, when the Board of Ordnance constructed the experimental range station. Subsequently, the military ownership of the land containing the defended settlement has helped to protect the monument from the pressures of modern development.

For more information on the archaeological and historical background of the area and details of archaeological finds recovered in the vicinity, see *An*

assessment of the archaeological implications of a proposed development at Shoeburyness (CAT 2012b, attached to this report in WSI).

4 Methods (Figs 3, 5)

The footprint for the two new houses was excavated as one area, with two separate areas for the footprint of each of the two garages located to the west (Fig 3).

The modern hard-standing (L5) and undifferentiated soil layers (L1, L2, L3) were removed in successive level spits down to the natural geology (L4) using a tracked excavator equipped with a toothless ditching bucket (for descriptions of these deposits, see CAT Report 680). The machine-excavation of all soil layers was carried out under the direct control of an experienced archaeologist and the excavated material was examined to retrieve finds. Occasional fragments of post-Roman building materials were observed in L1 and L2, but the only finds recovered from the soil layer (L3) which overlaid the natural were Iron Age pottery fragments recovered from the area of ditches F5 and F6. The only modern intrusions in L3 were two redundant electricity cables which were removed from the excavation area by the main contractor. The natural geology (L4) was located at between 7.82 m AOD and 8.10 m AOD. This consisted of sand with occasional gravels. A seam of fine, pale, sandy silt (interpreted as brickearth) extended SE-NW through the northern part of the site (see the photo. on front cover). Significant archaeological features were present across the whole of the site and in all three of the excavated areas. All the features identified as certainly modern or geological in origin were surveyed using a total station but were not assigned a context number.

In total, 71 numbered archaeological features were excavated and recorded. The features were cut into the natural (L4) from the base of the subsoil (L3; Fig 5). The feature fills were generally similar to the overlying subsoil, ie a grey/brown sandy silt.

The environmental sampling strategy was formed on site once the extent of the archaeology had been recognised. It was based on the visual assessment of the potential of a deposit assessing its carbon content and conditions. Overall, the below-ground conditions were not conducive to biological preservation.

5 Interpretation (Figs 3-8)

5.1 Introduction

Dated finds from the excavated features, supported by two radiocarbon dates provided by the Scottish Universities Environmental Research Centre, span the period from the Late Neolithic/Early Bronze Age to the Late Iron Age and Roman periods. Based on the relationships and nature of the features and the dated finds recovered, the archaeological remains span four chronological periods.

These are:

Period 1: Late Neolithic/Early Bronze Age-Bronze Age

Period 2: Late Bronze Age-Iron Age

Period 3: Middle Iron Age

Period 4: Late Iron Age-Roman

Almost all the pottery can be dated to either the Late Bronze Age/Early Iron Age (within Period 2) or the Middle Iron Age (Period 3). Many of the features can be more or less closely dated to these two periods, although a significant number of features could only be broadly dated as Late Bronze Age-Iron Age (Period 2-3). This is because they were isolated within the stratigraphic sequence and/or did not produce finds to allow them to be dated more confidently.

5.2 Period 1: Late Neolithic/Early Bronze Age-Bronze Age

The earliest closely-dated feature is the sub-rectangular pit F28, located in the northern garage plot. The main (mid) fill of the pit produced significant quantities of charcoal and other burnt material which appeared to result from a number of distinct actions represented by discrete tip-lines, although the main deposit of charcoal might only represent material from one event (Fig 5). There was no scorching of the surrounding sand to indicate that any *in situ* burning had occurred within the pit itself. Irregular pieces of fired clay, heat-altered (burnt) stones and prehistoric pottery were collected from the excavated half of the fill. The fill was environmentally sampled but no carbonised cereal grains/chaff or weed seeds were identified. However, there was a high density of charcoal/charred wood fragments, much of which was very distinctly flaked, implying that the material had been burnt at extremely high temperatures (see section 6.10). This may represent debris from clearance fires, although other sources such as sweepings from an oven or even a pyre are possible. A sample (GU32757) of the charcoal/charred wood was submitted for radiocarbon dating and provided a date of 2197-1981 BC at 95.4% probability, which dates the fill to the Early Bronze Age. The pottery fragment recovered is not closely dated, but it may derive from a decorated Beaker pot (dating to the Late Neolithic-Early Bronze Age).

On the southern garage plot, a shallow gully (F69; Fig 5) produced a small group of pottery which can be dated to the Middle-Late Bronze Age. This included sherds from vessels of Deverel-Rimbury tradition as well as sherds from a decorated bowl. A small piece of fired clay was also recovered from this feature. The absence of similarly-dated features or residual finds of this date from other, later features indicates that this pottery probably represents relatively limited or episodic activity at this time.

5.3 Period 2: Late Bronze Age-Early Iron Age

The main features which can be assigned to this period are pits and ditches. They are primarily dated by the pottery from their fills which is of post-Deverel-Rimbury type, broadly dated to the period of the Late Bronze Age-Early Iron Age.

In the south-western part of the site, a large feature (F70) was partly exposed. The feature was approximately 1.0 m deep. This is either a large pit (possibly a water hole), which appears most likely, or the terminal of a moderately substantial ditch. A quantity of pottery sherds of post-Deverel-Rimbury type were recovered from the fill (Fig 4) together with the largest single groups of both animal bone and worked flint from the site. The feature also contained some fired clay and burnt flints. The animal bone was poorly preserved and none of the worked flints were closely datable, although the assemblage is Bronze Age in character and could, therefore, have been discarded in the pit with the pottery sherds.

An irregular-shaped pit (F9, believed to be a N-S orientated ditch in the evaluation), together with the heavily-truncated pit or ditch terminal F35, also contained small quantities of pottery typical of post-Deverel-Rimbury assemblages and can be assigned to this period.

Two lengths of ditch, one (F32) in the eastern part of the site and the other (F30) in the south-western part of the site are of differing profile but may relate to each other and form the corner of an enclosure. The size of the ditches might be appropriate for an agricultural enclosure defining a field or pasture. Ditch F40 is also earlier in date than ditch F32 which cuts it, so clearly the features were created over a long period of time within Period 2. Probably also of Period 2 are some or all of a complex of intercutting ditches to the south of the eastern excavation (house plot) area which pre-date later features which can be dated to Period 3. However, during excavation, it proved difficult to separate the complex of ditches into separate elements and some are not well dated.

5.4 Period 3: Middle Iron Age

The dating of these features is primarily based on the presence of sherds of pottery typical of the Middle Iron Age. On the basis of the ceramic evidence and

the stratigraphic relationships between features, it is possible to confidently ascribe eleven features to this period.

The earliest feature which can be assigned to this period within the stratigraphic sequence of ditches on the site is ditch F5. The ditch is aligned NW-SE, ie at right-angles to the extant ramparts of the 'Danish Camp' enclosure. It is probable that F5 was a boundary ditch which was later replaced by ditch F6 (Plate 1). A fragment of structural fired clay from the fill of F5 suggests that contemporary buildings were located nearby, and a small square clay brick also recovered from the fill could indicate the presence of a hearth, oven or kiln in the vicinity (see section 6.4). A cast copper-alloy terret-ring (SF1), the purpose of which was as a rein guide for pairs of horses harnessed to carts or chariots, was recovered from the upper fill of F6. This can be dated to the Middle or Late Iron Age and is the only copper-alloy object recovered during the excavation. A third ditch (F16), on the same NW-SE alignment, also produced pottery dating to the Middle Iron Age.



Plate 1: ditches F5 and F6 (view south-east).

Buildings (Round-house 1 & Round-house 2)

The location of an Iron Age round-house - Round-house 1 - was marked by a curvilinear gully F12 (Plate 2 below). The gully cut the fill of ditch F5. There was no evidence from the gully as to whether it formed the construction trench for a wall or whether it was an eaves-drip gully at the edge of the roof for drainage. If this feature was indeed an eaves-drip gully, then the diameter of its internal area would indicate that the roof of Round-house 1 had an external diameter of approximately 12 m. No post-holes were identified within the internal area of the structure, presumably because they were not set deep enough into the ground to disturb the natural sand which formed the excavation surface. No breaks were identified in the circuit of the gully, indicating that the entrance was probably located on the east or south side of the building, as is common for the majority of excavated round-houses. Middle Iron Age pottery sherds recovered from the gully had sooting or burnt residues on their surfaces, suggesting that the pottery was used in a domestic setting, presumably for cooking.

Just beyond the gully defining Round-house 1, an arc of post-holes was identified (F19, F26, F27, F29, F39, F44). These appear to mirror the curvature

of the gully, indicating that they probably relate to it and are contemporary. It may be that the post-holes represent the base of an outer ring of structural support posts, similar to 'House B' at West Brandon in County Durham, where the later of two round-houses had a ring of posts located outside an annular gully (Cunliffe 2005, fig 4.10). However, structural posts from a round-house which are located outside the house gully seem to be rare and, as only part of Round-house 1 lies within the excavated area, the relationship of the posts to the whole circuit of the building is not known. While they appear to relate to the gully and, therefore, to the round-house, they may represent a separate feature such as a fence-line around part or all of the building. The possibility that they coincidentally mark the position of an earlier post-built structure or separate building phase cannot be entirely excluded.



**Plate 2: curvilinear gully (F12) of Round-house 1
(view south-west).**

A short arc of a smaller curvilinear gully (F33) to the west of Round-house 1 appeared to be the remains of another round-house gully, ie Round-house 2 (Fig 3). The gully, which produced sherds dated to the Middle Iron Age, was narrow and shallow compared to that of Round-house 1 and, for the most part, was probably not deep enough to cut into the natural sand. It appears to have been truncated by later activity. The curvature of the gully suggests that it would have enclosed an area similar to that of Round-house 1 at approximately 12 square metres. A larger linear feature (F63), to the south, was thought to be a continuation of the gully but may, more probably, represent a ditch. This may have joined with ditch F6 to the north forming part of an enclosure with a possible entrance on the south side marked by the terminal of F63.

If the two round-houses were contemporary standing buildings, then the roofs would probably have been very close together, indicated by a gap of only approximately 0.4m between the enclosing gullies or eaves-drips (Fig 3). This may indicate that the two round-houses were sequential, with one replacing the other; although, if so, it is not known which was the earlier of the two. A number of post-holes were identified within the proposed internal area of Round-house 2 and may be associated with it, but there is no clear association. However, most of the other features in this area must have been infilled before it was constructed, although ditch F8 almost certainly post-dates it. No evidence of an internal hearth was found, although any trace of one would probably have been removed by ditch F8.

On the eastern side of the site, within the area occupied by Round-house 1, was a large pit (F31; Plate 2). The pit contained a significant assemblage of Middle Iron Age pottery presumed to be domestic in nature, as burnt deposits similar to those on sherds from the round-house gully were also present on

sherds from the pit. It also contained a significant quantity of fired clay (most of which is presumed to be structural) and a small square clay brick similar to the one recovered from F5. The brick from F31 had a dark-grey/black fabric and blackened surfaces, suggesting that it had been heated (see section 6.4). The pit fill contained a high charcoal content and an assemblage of charred cereal-processing waste was recovered from an environmental sample taken from the lower fill. A radiocarbon date with a range of 363-185 BC at 95.4% confidence was obtained from charred cereal grains from the sample (GU32758), indicating an early Middle Iron Age date for the fill. A single sherd of typical Late Iron Age grog-tempered ware was recovered from the upper fill of the pit, which may suggest that the pit was still in use in the Late Iron Age, but which may be intrusive or represent later settlement and sinkage from overlying deposits into an earlier feature. Overall, the radiocarbon dating and the ceramic evidence indicate that pit F31 was broadly contemporary with Round-house 1. The debris suggests that it derives from a hearth, oven or kiln located in the area and which utilised cereal-processing waste as tinder or fuel. The hearth or oven might have been associated with the round-house, although the relationship of this feature with Round-house 1 is not clear. It seems most likely that it either pre-dated or post-dated the round-house, with a later date being the more probable.

At the eastern edge of the site was a large deep pit (F50; Plate 3). The southern end was over 1.6m deep and had a bell-shaped profile with a relatively flat base (Fig 6). The northern end was only 0.65m deep, indicating that it represents two intercut features. There was no direct evidence for the specific function of this feature, although the small number of finds recovered would suggest that it was not simply a large rubbish-pit. A Roman grey ware sherd was recovered from the upper fill; however, as a single small sherd, it is probable that this is either intrusive or that it represents settlement or sinkage from overlying, later deposits. Based on its depth and form, the most likely function for this feature would appear to be as a storage pit.



Plate 3: pit F50 (view east).

5.5 Period 2-3: Late Bronze Age-Iron Age - unphased features

A large number of the features can be broadly dated as Late Bronze Age-Iron Age (Period 2-3). This is primarily because of the apparent high levels of flint-tempered pottery continuing in use into the later Iron Age period, which make close dating of small numbers of sherds difficult. However, many of the larger features (pits and ditches) are, probably, most likely to date to the Late Bronze Age-Early Iron Age rather than later.

Few of the post-holes could be closely dated although, numerically, these are the largest group of features encountered, with a total of 35 recorded. This is because only very few finds were associated with them and the pottery sherds

were generally too small to be diagnostic. Apart from the arc of post-holes surrounding the perimeter of Round-house 1, which are probably Middle Iron Age (see above), there are two other possibly related groups of post-holes. There is a possible fence-line (F11, F20, F21, F25), which might be connected with ditches F5 and F6 and the movement of stock, and an in-line structure, perhaps used for drying, indicated by three evenly spaced post-holes (F42, F43, F46). Other, apparently isolated posts may have served many purposes, such as being used to tether animals or forming structures for drying or for the management of stock.

Eight pits could not be closely dated (F17, F22, F26, F35, F38, F67, F68, F71). Of these, three (F26, F38, F35) produced only very small quantities of relatively undiagnostic pottery broadly dated to the Late Bronze Age to Iron Age, and another (F17) contained pottery dated to the Early-Middle Iron Age. Four of these pits did not produce any datable finds at all. Stratigraphically, the pits appear to be spread throughout the site sequence, with three of the pits (F9, F68, F71) cut by later features and three of the pits (F22, F38, F67) cutting earlier features.

As well as the ditches assigned to Period 3, seven ditches or gullies (F18, F34, F66, F58, F59, F56/F62, F64) appear to pre-date Period 3 (Middle Iron Age). Most of these features contained very small quantities of finds which were not closely datable. The dating is based on their location in the stratigraphic sequence and the absence of any pottery which can be closely dated as Middle Iron Age. The gullies and ditches were of varying alignments, depths and widths, but most had U-shaped profiles and were relatively shallow (Figs 6-8). It is probable that, during each phase of activity, the site would have been split up into various land areas and that some, if not all, of the ditches formed the divisions between these land areas. F32 and F56/F62 appear to represent the corners of enclosed areas and it is possible that F30 and F32 join up to be the same ditch, although they had very different profiles (Fig 7). Another possibility is that some of the ditches may have been used to drain the land or protect it from flooding.

5.6 Period 4: Late Iron Age and Roman

Ditch F8 (identified in T2 of the evaluation phase) cut the annular gully of Round-house 2 and a sherd of Roman grey ware was recovered from one of the excavated sections of the fill (Plate 4). It is the only linear feature on the site which is east-west aligned (Fig 4) and, as such, it seems possible that it is of Roman date, but contained primarily residual Iron Age pottery.



Plate 4: ditches F8 and F62 (view east).

6 Finds (Figs 9-12)

by Stephen Benfield

with contributions from Adam Wightman, Nina Crummy and Val Fryer

6.1 Introduction

Bulk finds dated to the Bronze Age, Iron Age and Roman periods were recovered. These include a significant assemblage of prehistoric pottery, most of which can be dated to the Late Bronze Age-Early Iron Age and Middle Iron Age. Among a quantity of fired clay, the two small, complete Iron Age 'Belgic' bricks are also significant finds. The other finds consist of worked flints, burnt stones and animal bone. There are also a small number of concretions of natural origin and a single large stone cobble which is probably a naturally occurring erratic. The quantities of finds are listed in Table 1 (below) and the finds are listed and described in the appendices (Appendices 2-7). In addition, there are two metal small finds (SF) which are reported separately, one of which is a complete Iron Age terret-ring.

Table 1: type and quantities of finds.

Finds type	no	wt (g)
Pottery	469	5,941
Fired clay	101	2,563
Flint	22	-
Burnt stone	84	2,903
Stone	1	1,357
Concretions/mud stone	46	505
Animal bone	62	395

6.2 Prehistoric pottery

A total of 466 sherds of prehistoric (pre-Belgic) pottery, together weighing 5,888 g, was recovered from the evaluation and excavation. The average sherd weight is 12.6 g. It was intended to record the pottery using the fabric recording system devised by Brown for prehistoric pottery in Essex (Brown 1988). However, it was found that some of the fabric types present were not easily closely matched in the fabric series described by Brown. Because of this, the mix and quantities of inclusions present were recorded for each sherd based on the Essex fabric recording system (see Table 2, below). This information is listed by context in Appendix 2.

Table 2: prehistoric pottery fabric recording (based on Brown 1988).

Temper/inclusion type	code
Flint	FL
Sand	SA
Grog	GR
Shell	SH
Glauconite	GL
Vegetable temper (voids)	VT
Unidentified stone	UN
Size	
Fine (small) (< 0.25 mm)	S
Medium (0.25-1 mm)	M
Coarse (large) (> 1 mm)	L
Density	
Sparse (<6 cm ²)	1
Common (6-10 cm ²)	2
Abundant (10+ cm ²)	3

From the grouping of the combinations of inclusions recorded (A-E, G-Q, S), a list of seventeen fabric categories was devised, each designated by a single

letter code, which are listed and described below in Table 3. The codes are attached to the pottery described in Appendix 2. Where these appear to closely match fabrics described by Brown (Brown 1988) for the Essex recording series, the letter code from that series is given in brackets following the fabric description. The quantities of these fabrics, by sherd count and weight, are also listed in Table 3.

Table 3: quantity of prehistoric pottery by fabric.

Fabric code	Fabric description	No	% no	Wt (g)	% Wt
A	Fine-medium flint (B)	116	24.9	1,255	21.3
B	Fine-medium flint with occasional coarse (C)	95	20.4	1,572	26.7
C	Medium-coarse flint (D)	48	10.3	355	6.0
D	Flint with grog (Q)	55	11.8	617	10.5
E	Flint with vegetable temper (surface voids)	3	0.6	61	1.0
G	Flint with small stones or stone fragments (unidentified)	4	0.8	66	1.1
H	Flint with sand (E)	83	17.8	974	16.5
I	Sand with some flint (Y)	5	1.2	62	1.1
J	Sand with some flint and grog	2	0.4	52	0.9
K	Fine sand (G)	10	2.1	154	2.6
L	Fine-medium sand (I)	10	2.1	131	2.2
M	Sand with grog	10	2.1	191	3.2
N	Sand with vegetable-temper (surface voids) (J)	12	2.6	124	2.1
O	Sand with grog and vegetable-temper (surface voids)	4	0.4	41	0.7
P	Glauconite (S)	6	1.3	98	1.7
Q	Shell (voids) and flint (Z.1)	2	0.4	38	0.6
S	Grog with flint and vegetable temper (surface voids)	1	0.2	97	1.6
<i>Total</i>		466	99.4	5,888	99.8

The prehistoric pottery from the site forms a small but significant assemblage in terms of the date, forms and fabrics represented, while a number of sherds from feature groups can be illustrated. The pottery was recovered from the fills of ditches and pits. A significant quantity of pottery is associated with one pit (F31), and pottery was recovered from a stratigraphical sequence of features in the eastern part of the site. From the earliest to the latest in date, the features in the sequence are: F40, F32, (F35), F5, F6, F12 and F8.

Late Neolithic/Early Bronze Age-Bronze Age

Pottery which can be dated to the Late Neolithic/Early Bronze Age and Bronze Age period is primarily associated with individual features in the western part of the site (garage plots). These are pit F28 and gully F69.

A decorated sherd (P1) from pit F28 is decorated with a pattern of diagonal lines which may have been made with a fine comb or twisted cord. This is either from a Beaker pot (dating to the Late Neolithic-Early Bronze Age) or is possibly Late Bronze Age fine ware. A radiocarbon date on unidentified carbonised wood associated with this pit provided a Late Neolithic-Early Bronze Age date which suggests that the sherds may be part of a Beaker.

A small group of sherds from F69 is distinct from the other pottery recovered. The group includes medium or coarse flint-tempered fabrics of Middle Bronze Age Deverel-Rimbury tradition which can be dated to the Middle-Late Bronze Age. Among the group is a sherd from a flat-topped rim of a large vessel, possibly an urn or jar (P3), a rim from a large lugged pot (P5), and a sherd which is probably from the decorated rim of a large vessel (jar/bowl; P4). There are also sherds from two, thinner-walled pots. One is from a bowl with an upright or

slightly in-curving simple rim (P2). The other is a rim from a burnished fine ware bowl decorated with bands of simple, horizontal incised lines (P6). One base sherd has traces of significant flint gritting on the underside which is typical of pots of Late Bronze Age-Early Iron Age date (Brown 1988, 270). Overall, the pottery from this feature could be seen as part of a domestic assemblage with parallels at Barling Hall in Essex (Couchman 1977) and at Shoebury (Brown 1995). The decorated bowl (P6) and, possibly, the large bowl/jar with a decorated rim (P4) suggest that the group probably dates from toward the end of the Deverel-Rimbury tradition c 1,000 BC or a little later.

Late Bronze Age-Iron Age

The majority of the pottery recovered is an assemblage of Late Bronze Age-Iron Age date. The prevalence of flint-temper among the assemblage, continuing into the Middle Iron Age period, makes close dating of individual or small groups of body sherds difficult where no diagnostic sherds are present. While a number of vessel types can be more closely dated as Late Bronze Age-Early Iron Age or Middle Iron Age, the presence of sherds which are entirely sand-tempered has been used to date features to the Middle Iron Age period. The pottery recovered from features which produced closely-dated Middle Iron Age sherds is proportionately larger than that recovered from those with only Late Bronze Age-Early Iron Age pottery. This suggests that, although some pottery from later features may be residual, the bulk of the pottery is probably of Middle Iron Age date.

Late Bronze Age-Early Iron Age

While close dating is difficult, a number of sherds are most easily paralleled among post-Deverel-Rimbury assemblages (Barratt 1980), dating to the Late Bronze Age-Early Iron Age (c 1,000 BC-350 BC). Notable amongst this is the pottery from pit F70 (located in the western part of the site). This pottery includes a jar rim with an internal, angular carination (P8), a flint-tempered bowl with a plain in-turned rim (P7), and a body sherd from a vessel decorated with two parallel, horizontal incised lines (not illustrated).

There are also several individual sherds from other features, which are also more typical of post-Deverel-Rimbury assemblages. These include a rim from a large jar or deep bowl (P9) from pit/ditch terminal F35, a jar rim (P11) from pit F9, and a bowl (P10) from ditch/gully F58. There is a handle (P12) from ditch F8 which, again, is also most easily paralleled among Bronze Age-Early Iron Age assemblages rather than later.

It is not clear how this pottery relates to the closely-dated later Bronze Age pottery or the larger Middle Iron Age pottery assemblage. There is a noticeable lack of angularity among the sherds, angularity being a trait which is typical of many Early Iron Age vessels. The vessel forms associated with pit F70, in the western part of the site, might indicate a date earlier in the Late Bronze Age-Early Iron Age period rather than later. Also, there is an absence of any clear Darmsden-Linton type pottery (Cunliffe 2005, 102), most notably the diagnostic angular bowls commonly decorated with grooves above the shoulder. This pottery is diagnostic of the Early Iron Age period in East Anglia and it is present among a large assemblage from North Shoebury in Essex (Brown 1995). However, its absence here is not necessarily significant in terms of dating. The continued use of flint-tempering through the later Iron Age period is seen in assemblages in South Essex and in North Kent, a wider area to which the pottery here could be seen to be associated. Kent itself lies beyond the core area of the Darmsden-Linton tradition in Eastern England, principally centred on the area from the Thames to the Wash (Gibson & Woods 1990, 142). Overall, it appears likely that at least some, and possibly much, of the flint-tempered pottery recovered from features which pre-date those identified as Middle Iron Age is of Early Iron Age date (c 700-350 BC) rather than earlier.

Middle Iron Age

The majority of the assemblage can be broadly dated as Middle Iron Age (c 350-50 BC), although some of the more heavily flint-dominated groups might, possibly, date to the late Early Iron Age period (c 500-350 BC). However, while a large proportion of the pottery contains flint-temper, most of the vessel forms present are typical of assemblages dated to the Middle Iron Age. In much of Essex, the dominance of flint-temper is usually an indication of an earlier date, as the proportion of flint began to be reduced during the Early Iron Age, with sand-temper becoming dominant in the Middle Iron Age (Sealey 2007, 50). However, the use of flint-temper appears to remain a feature of pottery in South Essex into the Middle Iron Age, especially in the early part of that period (Wilkinson 1988, 80-81). It was found to make up 49% of the pottery from Middle Iron Age features at nearby Orsett, although some there may be residual from earlier occupation (Brown 1998, 88). It can be noted that here, among the significant quantity of pottery recovered from pit F31, sherds with flint-temper account for approximately 50% both by count and weight. A radiocarbon date associated with this pit (sample GU32758) indicates an Early/Middle Iron Age date for the feature.

The diversity of fabric types recorded (other than exclusively flint-tempered fabrics) is also a common feature among Middle Iron Age assemblages. Many of the vessel forms can be paralleled among a large assemblage of pottery dated to the Middle Iron Age from Mucking in Essex, where flint-temper is also a dominant or significant part of pottery groups dated to the early and late Middle Iron Age period (Brudenell forthcoming).

Apart from surface burnishing, decoration is quite rare, and this is also consistent with a primarily Middle Iron Age assemblage. One rim (P25) has evidence of angled finger-tip decoration on the rim top. More distinctly typical of Middle Iron Age assemblages is a body sherd (P17) decorated with incised lines (scratches), a technique which also occurs on pottery from Little Waltham in Essex (Drury 1976, 58). Another sherd in a fine sand fabric (P24) has part of a pattern of curving burnished lines, possibly arcs. The sherd is only small but the fabric indicates a Middle-Late Iron Age date. This is possibly part of a wider group of decorated fine ware bowls in the Thames region recovered from Middle-Late Iron Age assemblages in South Essex, often referred to as the 'Mucking-Crayford' style (Cunliffe 2005, 115), although this association is not clear here. In addition, wave-like indentations below the rim of one Middle Iron Age-style jar (P27) may be part of a pattern, but this is slightly unusual and is most probably connected with its manufacture.

A number of the vessels can be paralleled with forms recorded among the assemblage from Little Waltham (LW). There are rim sherds from a number of slack-bodied jars with everted, simple rims and commonly with smoothed or burnished surfaces broadly corresponding to LW Form 11. Examples of these appear in a range of fabrics: ie Fabric K (P13), Fabric I (P26), and Fabric N (P28). There is also an example of a bowl with an everted (flaring) rim (P18); this corresponds to LW Form 13 which has a highly burnished surface and is probably a fine ware. This vessel presumably had a footring base. Two other footring bases (P22, P29) are probably from similar bowls. It might be possible that one of these (P29) is part of the same vessel as the rim (P18) above. There are also two bases (P30 and one not illustrated) in glauconite sand fabric (Fabric P), which again may be from similar bowls. One has a small but distinct footring, while the other (P30), the surface of which is highly burnished, has a protruding foot but also a slight footring. These are probably also fine ware vessels and would certainly have to have been imported to the site from areas with accessible glauconite sand deposits, either in North Kent or a source in South Essex west of the present site (Biddulph 2012, 76).

In addition to pots which can be closely paralleled at Little Waltham are several jars broadly corresponding to LW form 11 but which are in moderate to relatively coarse flint-tempered fabrics (P20, P19, P35). There are also rim sherds from two slightly larger bowls or jars which have distinctly straight, everted rims. One (P23) from F31 is in a glauconite sand-tempered fabric and

has a highly burnished surface, while the other (P21) from F12 is in a moderately coarse, flint-tempered fabric. There is also an example of a large jar or storage jar in a flint-tempered fabric (P32). This was recovered from from F31 Spit 2(32). A sherd of Late Iron Age grog-tempered pottery was recovered from the same context. The jar has a distinct bead rim, possibly prefiguring large jars more typical of the Late Iron Age or early Roman period, but it can be broadly paralleled among other Middle-Late Iron Age assemblages from South Essex (Wilkinson 1988, fig 72, no 23; Brudenell forthcoming).

The forms of vessels and the near absence of grog-tempered ware indicate that the bulk of the Iron Age assemblage dates to the period of the 4th century BC-late 1st century BC, or slightly later. The dominance of flint-temper could indicate that it is predominantly early Middle Iron Age, although flint-temper appears to persist in use into the late Middle Iron Age. The stratigraphic sequence of features in the eastern part of the site also suggests a significant, but undefined time depth to the Iron Age occupation here. However, the usefulness of this sequence is somewhat diminished as the very small quantity of pottery (all flint-tempered sherds) recovered from the earliest of these features (F40, F32, F35) might possibly date earlier, to the Late Bronze Age-Early Iron Age period. Sand-tempered pottery typical of the Middle Iron Age (P13, P17) first appears in ditch F5 which is in the middle of the stratigraphic sequence of features.

Pottery which can be closely dated to the Late Iron Age consists of just a single sherd of grog-tempered ware (Fabric GTW) from pit F31 Spit 2(32). Grog-tempered 'Belgic' pottery may not become common on settlement sites prior to the late 1st century BC. In South Essex, it may not have been a significant part of the everyday assemblages on some occupation sites, although it appeared with burials (Thompson 1995). It can be noted that grog-tempered pottery also appears to be comparatively rare or absent on some Iron Age sites in East Anglia and Kent, where pottery of Middle Iron Age type is thought to have been current into the Late Iron Age period (Martin 1999; Couldrey 1984). If not intrusive, then the sherds appear to indicate only limited activity in or approaching the Late Iron Age period, while also suggesting that pottery from pit F31 is possibly among the latest in the Iron Age assemblage.

A number of the sherds from Iron Age contexts have sooting or burnt residues, either on the external surface or internal to the vessel. Sherds with carbon residues are recorded from ditch F5(4) (P16), ditch F8(8), annular gully F12(11) and F12(51) (P21), pit F31(32), ditch F34(40), pit F35(10), ditch F58, and L2b (P31). They indicate the use of the pottery in a domestic setting, presumably for cooking.

The prehistoric pottery assemblage is broadly similar to that recovered from a previous, adjacent excavation in 1999 reported by Elaine Morris (Gifford and Partners 1999). The area located just to the west of the present site produced some Beaker pottery but with the bulk of the assemblage dated to the Middle Iron Age. That the Middle Iron Age assemblage consisted primarily of flint-tempered fabrics was specifically noted by Morris. Pottery of Late Neolithic and later Bronze Age date was also recovered during this earlier excavation, from areas located slightly further from the present site.

Illustrated prehistoric pottery (Figs 9-11)

Pit F28

P1 Pit F28(29) Fabric H. Body sherd with slight carination at horizontal groove, area above(?) decorated with angled grooves (plain below), grooves abraded but indications of fine segments which probably indicate made with fine comb or fine cord.

Gully F69

P2 F69(79) Fabric B. Bowl rim, upright or slightly in-curving.

P3 F69(79) Fabric C. Rim with part of small, broken vertical lug on body.

P4 F69(17) Fabric B. Sherd probably from just below the rim of a large bucket-like jar/bowl with decoration around rim top, sooting/burnt residue on exterior.

P5 F69(70) Fabric C. Urn rim, simple upright rim, flat top, oxidised surfaces.

P6 F69(79) Fabric H. Bowl, simple upright rim, slightly flattened, rounded top, orange-brown surface and horizontal incised groove decoration.

Pit F70

P7 F70(19) Fabric B. Bowl rim, in-turned, simple (slightly flattened) rim.

P8 F70(19) Fabric B. Jar rim, everted, angular, broken off along rim edge.

P9 F35(10) Fabric B. Jar rim, ?biconical jar, simple, expanded rim with flat top, smoothed surfaces, some external sooting/burnt residue.

P10 F58 (55) Fabric J. Rim from an open bowl. This has a slightly concave rim top more commonly associated with closed bowl forms but the sherd shape suggests a more open form.

P11 F9(57) Fabric A. Jar rim, simple slightly flattened top.

P12 F8(14) Fabric B. Handle.

F5 ditch

P13 F5 (4) Fabric K. Jar rim, simple everted rim, dark brown-grey, smooth surfaces.

P14 F5 (28) Fabric B. Jar rim, upright, flattened top, part oxidised orange-brown, some internal sooting/burnt residue.

P15 F5 (4) Fabric A. Rim, slack-shouldered jar, grey-brown surface, sandy flint-temper.

P16 F5 (4) Fabric D. Rim, slack-shouldered jar, very dark grey surfaces, smoothed, sandy fine-medium flint-temper, horizontal line of sooting/burnt residue on exterior surface just below rim.

P17 F5 (43) Fabric A. Body sherd with vertical decoration of irregular grooves.

F6 ditch

P18 F6(9) Fabric A(?). Jar, flaring rim, rounded body with vertical burnish, horizontal burnish on rim.

F12 ditch

P19 F12 (51) Fabric H. Jar rim, everted, angular with rounded, slightly flattened rim top.

P20 F12 (51) Fabric H. Rim, simple everted rim with rounded top, slightly angular inside common small-medium flint-temper, partly oxidised orange-brown and grey surfaces.

P21 F12 (51) Fabric D. Jar, everted rim, rounded top rough surface, some dark grog, sooted residue on exterior.

P22 F12 (42) Fabric K. Base with footring, burnished dark-grey and brown surface.

F31 pit

P23 F31 Spit 3(32) Fabric P. Jar rim, slack-shouldered jar, simple everted rim, dark grey-brown burnished surface.

P24 F31 Spit 1(12) Fabric K. Body sherd, decorated with pattern of burnished lines, dark grey-brown burnished surface.

P25 F31 Spit 1(32) Fabric B. Jar rim, everted, slightly thickened, traces of irregular finger indentations on top and exterior of rim edge, but appears not to be deliberate decoration.

P26 F31 Spit 3(32) Fabric I. Jar rim, simple everted rim, sandy fabric with some grog-temper and some sparse flint, burnished.

P27 F31 Spit 4(32) Fabric M. Jar rim, simple rounded rim top, some sparse grog inclusions, smooth/burnished surface, indentations below rim probably incidental potting marks grey-brown, smooth surfaces.

P28 F31 Spit 2(32) Fabric N. Jar rim, slack-shouldered jar, grey-brown smoothed surface.

P29 F31 Spit 3(32) Fabric L. Base with footring, burnished dark-grey and brown surface.

P30 F31 Spit 1(32) Fabric P. Base with protruding foot, burnished very dark-grey/black surface.

P31 F31 Spit 3(32) Fabric H. Jar rim, slack-shouldered jar, fine sandy fabric with sparse flint, orange-brown, smoothed surfaces.

P32 F31 Spit 2(32) Fabric S. Rim large storage jar, necked (possibly indicates Late Iron Age date), plain shoulder, flattened top to rim, form is similar to Cam 273 (see Wilkinson 1988, fig 72, no 23 for Middle Iron Age large storage jar).

P33 F31 Spit 2(32) Fabric M. Rim, slack-shouldered jar, small/fine fragments of grog, mostly red-coloured, in fabric .

F50 pit

P34 F50(68) Fabric I. Rim from a necked, slack-shouldered jar, smoothed grey-brown surfaces.

P35 F50(55) Fabric E. Rim, slack-bodied jar, simple rim, slightly everted, rounded top, fabric common small-medium flint-temper.

6.3 Late Iron Age and Roman pottery

Only a very small quantity of pottery which can be dated to the Late Iron Age and Roman period was recovered. In total, this amounts to just three sherds, with a combined weight of 53 g. The pottery was recorded using the Essex (Chelmsford) Roman pottery fabric series (Going 1987). The fabrics recorded and the quantities by fabric are listed in Table 4 and the fabric numbers are given in brackets after the fabric description.

Table 4: quantity of Late Iron Age and Roman pottery by fabric.

Fabric code	Description	No	Wt. (g)
GRS	Sandy grey wares (47)	2	39
GTW	Grog-tempered fabrics (53)	1	14
	<i>Total</i>	3	53

A single sherd of typical Late Iron Age grog-tempered ware (Fabric GTW), broadly dated to the period of the late 1st century BC-mid/late 1st century AD, was recovered from the mid-upper fill (Spit 3) of pit F31(32). There are also two Roman grey ware sherds (Fabric GX). One is a large, abraded body sherd broken into four pieces and which is from ditch F8(50); the other is the knob from a lid with a pre-firing steam vent-hole made through it, from the upper fill of pit F50(66). Neither sherd is closely datable, although coarse ware lids appear to be more common in the early-mid Roman period than later, possibly indicating a mid 1st- to 2nd-century date, and the other (broken) sherd might also be of similar date.

These few sherds are all from features in the eastern part of the site and are either associated with features late in the stratigraphic sequence (ditch F8) or derive from the mid-upper fill of a pit feature (pit F31), or both (pit F50). The sherds do not suggest any significant activity on the site after the early-mid 1st century AD and might be intrusive in the features from which they were recovered, probably at best dating the upper fill or having later settled into them.

6.4 Fired clay

In total, 101 pieces of fired clay were recorded, with a total weight of 2,653 g. This is listed by context in Appendix 3. The largest quantities are associated with individual features and are from ditch F5 (21 pieces weighing 723 g), pit F28 (19 pieces weighing 624 g), and pit F31 (15 pieces weighing 624 g). Most consist of irregular or abraded rounded lumps and fragments, oxidised or part-oxidised red/orange or buff. One small piece was recovered from a pit (F69) with pottery

dated to the Middle-Late Bronze Age, but most is associated with Iron Age, especially Middle Iron Age, occupation and activity on the site.

The nature of the fired clay pieces, for the most part, does not allow any specific identification of objects or interpretation of the structures from which they derive or of which they were part. Likely sources are ovens or hearths, or possibly parts of daub-covered walling, although very few wattle impressions were recorded. Of note is a structural piece from ditch F5(4) which preserves some sub-square (moulded) perforation at one edge and angled, shallow wattle impressions on the rear (broken) face.

There are two complete or virtually complete, small, square, clay bricks; one (SF3) recovered from ditch F5 and the other (SF4) from the pit F31. The appearance of each is very different (Fig 12, nos 2-3). One (SF3) is in a buff fabric with a number of small stones, while the other (SF4) is dark-grey/black and in a fine-medium sand fabric, although both are of similar size, which is indicated at approximately 60 mm square (the thickness varies between 40 mm and 20 mm). Similar square or rectangular fired clay objects, which are often referred to as 'Belgic bricks' following Wheeler and Wheeler (Wheeler & Wheeler 1936), have been recovered from Ardale School, Stifford (Wilkinson 1988, 94) and Orsett (Major 1998). Possibly relating to the bricks is a small irregular cube of red fired clay from F6(20) which is similar to a Roman tile *tessera* in form. The cube appears to have been roughly cut or broken from a larger brick, retaining the upper and lower surfaces of the original slab. This may be similar in character to some of the bricks or brick pieces from Orsett which were also probably cut from larger slabs.

The use of the objects collectively referred to as 'Belgic bricks' (which encompasses a range of shapes and sizes) is not known, although some function involving heat may be surmised, associated with hearths, ovens or kilns. The blackened surfaces and dark fabric of the brick from F31 may indicate that it has been heated, although the clean buff surfaces of the other do not suggest any significant heating. Also, the similar size of the two square bricks here could indicate that they relate to each other in function, and were made to fulfil a specific purpose. It is interesting to note that a complete brick from Ardale School is of a very similar size, although many of the bricks from Orsett are rectangular.

Many of these bricks appear to come from contexts dated to the Late Iron Age or early Roman period. At Ardale School, they were associated with contexts dated to the 1st century AD, although a Late Iron Age date could be suggested for one complete brick there. At Orsett, a number of bricks were recovered in association with an oven floor, probably domestic in nature, dated to the mid-late 1st century AD. The brick from ditch F5 is associated with pottery typical of Middle Iron Age assemblages.

Fig 12(2) F5(6) (SF3). Almost complete, small, slightly irregular, square brick (214 g), buff fabric with some small-medium stones (60 mm x 60 mm x 40-35 mm).

Fig 12(3) F31(34) (SF4). Almost complete (one large piece with small joining fragments), small, slightly irregular, square brick (145 g), with surface of one edge broken away, dark silty fabric (black surfaces dark grey-brown fabric) with fine-medium sand (58 mm x 58 mm x 20 mm).

6.5 Worked flints

by Adam Wightman

In total, 22 worked flints were recovered from eleven contexts. Ten of these contexts have been dated to Periods 3 and 4 and are, therefore, residual. However, the largest assemblage of worked flints from one context came from large pit or ditch terminal F70, which has been dated to the Late Neolithic/Early Bronze Age based on the pottery evidence (see Appendix 4).

The assemblage consists of 20 flakes and two retouched flakes. Eight of the flakes had breaks or hinge/plunge fractures which would almost certainly have occurred during the knapping process. One of the flakes also exhibited

percussion marks from mis-hits/failed attempts to remove the flake. Breaks and mis-hits are characteristic of knapping with a hard hammer and can result from poor-quality raw material and/or a lower level of knapping ability. Other characteristics of hard-hammer knapping noted throughout the assemblage were large, pronounced bulbs of percussion, wide striking platforms, and the thickness of the flakes near the proximal end.

The average dimensions of a flake in this assemblage is 30mm long, 29mm wide and 7mm thick. This equates to a relatively thick and 'squat' flake assemblage. Two-thirds of the examples in the flake assemblage retained some cortex (outer surface of the original nodule) on the dorsal face, with one-third having no cortex due to previous flake removals. There is also a low average number of previous flake removals (2.2) noted on the dorsal faces of the secondary and tertiary flakes. The characteristics described above suggest that either the assemblage represents the early stages of the knapping process, with the later stages being undertaken elsewhere, or that relatively small flint nodules were utilised for flake production and that the cores were not being heavily worked.

Two of the flakes exhibited usewear/edge-damage and two had been intentionally retouched. One of the retouched flakes had a small notch removed from the ventral face on the left lateral edge. The other retouched flake had abrupt scraper retouch around the proximal end of the flake (to create an end scraper), with additional uneven abrupt retouch on the left lateral edge and distal end (possibly forming a point).

The main raw material used was a mottled/dark grey flint, although one piece was made on a light grey/brown flint and another was made on light grey chert. It is probable that most, if not all, of the flint derives from local gravel deposits associated with the River Thames.

None of the worked flints are closely datable. It is possible that the end scraper and the two soft hammer flakes could date to the Early Neolithic or, less likely, the Mesolithic. However, an analysis of the flake assemblage has highlighted technological characteristics which are indicative of the declining ability of flint-knappers in the Bronze Age, when an intensification in farming activities and the emergence of a wider range of metal tools led to an increasing decline in the quality of flint-working techniques. Therefore, it is probable that most, if not all, of the worked flints are Bronze Age in date and that the worked flints recovered from F70 could have been discarded in the pit with the pottery sherds.

6.6 Burnt stone

There are 84 pieces of heat-altered (burnt) stone from the site, with a total weight of 2,903 g (see Appendix 5). Small quantities were recovered from many of the features with no significant concentrations, the largest quantity being recovered from pit F28 (16 pieces weighing 468 g). The majority of the burnt stone is flint, with a few pieces of sandstone/quartzite (4 pieces weighing 189 g) recovered from two features (large pit F31, pit F68).

Burnt stone is frequently encountered on prehistoric sites and its main use was probably for heating water to use in cooking, the stones being added to a pot or container after having first been heated on a fire. It is also commonly encountered crushed, as a tempering material (usually as burnt flint) added to the clay used to make pottery vessels. The presence of relatively small quantities of burnt stones in many of the features indicates that they were not uncommon on the site in the Iron Age period but, also, that many could be residual in the contexts from which they were recovered. The lack of significant concentrations might suggest that they derive from larger concentrations or activities located off-site but close to the excavated area.

6.7 Stone

A single large piece of stone (1,357 g) was recovered from large deep pit F50(67) (see Appendix 6). This is about half of a large, naturally rounded limestone cobble which shows no signs of any working or modification. The cobble break is clearly ancient and it is probably a naturally occurring erratic.

A number of pieces of fine-grained soft stone or hardened clay were recovered from several contexts, notably F5, F6 and F31 (Appendix 6). The colour, texture and nature of the fracture of these suggests that most, if not all, are fragments of septaria (mud) stone and are probably naturally occurring pieces. A few pieces of natural sand concretion are also present.

6.8 Animal bone by Adam Wightman

Methodology

All the bone was examined to determine range of species and elements present. Species identifications were made using the author's modern comparative collections. All identifiable elements were recorded. Fragments of unidentified large taxa derive primarily from cattle (*Bos sp.*), although may also include horse (*Equus sp.*) and larger deer species. Fragments recorded as medium-sized taxon will predominantly be from sheep (*Ovis sp.*) and pig (*Sus sp.*), although goat (*Capra sp.*), dog (*Canis familiaris*) and smaller deer species (*Cervus sp.*) may also be represented. If determination of the element from which a small fragment originated was not possible, it was noted whether the fragment was from the appendicular skeleton (limbs) or the axial skeleton (vertebrae, ribs, etc, including cranial skeleton).

Each bone was inspected to determine if evidence of bone-, horn- or antler-working was present in the assemblage. Evidence of butchering and any indications of skinning, horn-working and other modifications were recorded. When available, the fusion state of identifiable bones was also recorded and ages were assessed following Silver (Silver 1969). A record was made of any other relevant information such as pathologies. Counts and weights were taken and recorded for each context. The side of the body from which the bones were derived was also noted. Measurements were not taken for the bones, as there would have been too little data for any meaningful interpretation. Bones of sheep and goats were recorded as *Ovis* (sheep species) based on the greater frequency of this species in the region, but diagnostic metapodials, horn-cores and deciduous fourth premolars (DPM4) were distinguished between the two species following the criteria of Boessneck (Boessneck 1969). Recently broken bones were joined where possible and have been counted as single fragments.

The analysis was carried out following a modified version of guidelines by English Heritage (Davis 1992) and also with reference to Cohen & Serjeantson 1996, Hillson 1986, and Payne 1987. A catalogue of the faunal remains is included in the site archive.

Discussion

In total, 62 fragments of animal bone (weighing 395g) were recovered from six contexts (see Appendix 7). All the bone fragments recovered were hand-collected. The level of bone preservation is very poor; the bone is very soft and powdery with flaking cortical surfaces. As a result, the bone assemblage is very fragmentary, with the 62 bone fragments representing a maximum of only 32 bones. It is presumed that a high level of acidity in the soil has caused the post-depositional erosion of the bone.

Animal bone was collected from the large pit or ditch terminal (F70) dated to Period 2, three ditches (F5, F6, F63) and a possible well (F50) from Period 3, and an unphased post-hole with a high charcoal content (F11). With the exception of F70, which contained 68% of the bone recovered, the rest of the contexts contained very small quantities of bone. F50 and F70 were two of the deepest features on the site and the bone was collected from near the base of the features in both instances. This suggests that there is a correlation between depth and bone survival. The animal bone in F50 was recovered from within a solid layer of baked silty-sand near the base of the deep pit. The bone is too fragile to remove from the sand concretions and, therefore, the weights quoted in Appendix 7 are not an accurate reflection of the weight of the bone.

Most of the bone fragments are too small and eroded to determine the element or species from which they derive. One sheep bone and nine cattle bones/teeth

were identified in the assemblage. It is probable that a large proportion of the unidentified bone derives from cattle, as the bone from this species is more robust and, therefore, has a better survival rate. Teeth and burnt bone both survive better than unaffected bone fragments, hence their high frequency in the assemblage (15% and 5% respectively).

Taphonomy, in the form of preservation bias, coupled with the small sample size, does not allow many conclusions to be drawn from this assemblage. However, the bone does indicate that domestic animals, certainly cattle and sheep, formed part of the diet during the Iron Age and would, therefore, have been present within, or in close proximity to, the defended enclosure.

6.9 The copper-alloy objects

by Nina Crummy

The assemblage consists of a cast terret-ring, probably from the upper fill of ditch F6 (Fig 12(1), SF1), and two tiny copper-alloy fragments from pit F31. Terret-rings are typical of the Iron Age but also occur in Romano-British contexts, and may be either elaborately decorated or comparatively plain, as here. They were used as rein guides for pairs of horses harnessed to carts or chariots. Five were found in a Middle Iron Age chariot burial at Wetwang in Yorkshire, with four (one for each rein) fixed to a yoke that would have passed over the shoulders of the animals and with a fifth to bring the two pairs of reins together (Stead 1991, Burial 2). Other sets formed part of Iron Age metalwork hoards such as that from Polden Hill in Somerset, Stanwick in Yorkshire and Middlebie in Dumfriesshire (Brailsford 1975; MacGregor 1976; Fitts *et al* 1999). With its lipped stops flanking the attachment bar, the Shoebury terret-ring is likely to date to the later Middle or Late Iron Age.

Fig 12(1), SF1. (16) F6. Cast circular copper-alloy terret-ring, with the outer face of the ring grooved above the attachment bar, which is flanked by lipped stop-mouldings. Diameter 31 mm, width varies from 4-7mm.

SF 2. (37) F31, Spit 5. Two amorphous fragments of copper-alloy, associated with organic material and fragments of copper-alloy stained soil. Total weight 0.17 g.

6.10 Plant macrofossils

by Val Fryer

Method

The samples (or sub-samples thereof) were processed by manual water flotation/washover and the flots were collected in a 300-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 Appendix 8. Nomenclature within the table follows Stace (Stace 1997). All plant remains were charred.

The non-floating residues were collected in a 1mm mesh sieve and air-dried prior to sorting. All artefacts/ecofacts were retained for further specialist analysis.

Results

Cereal grains/chaff and seeds of common weeds were present at a low to moderate density within all but sample 1. Preservation was moderately good, although some grains were puffed and distorted, probably as a result of combustion at high temperatures.

The highest density of material occurred within the assemblage from sample 2, which was taken from a large, flat-based pit (F31) located within a curvilinear gully (F12). Elongated 'drop' form wheat (*Triticum* sp.) grains typical of spelt (*T. spelta*) were noted (along with a single possible oat (*Avena* sp.) grain), but the assemblage was essentially chaff dominant, including a moderately high density of spelt glume bases, along with other wheat chaff and oat awn fragments. Seeds of common segetal weeds were also recorded, with taxa noted including brome (*Bromus* sp.), fat-hen (*Chenopodium album*), small legumes

(Fabaceae), black bindweed (*Fallopia convolvulus*), dock (*Rumex* sp.), and scentless mayweed (*Tripleurospermum inodorum*).

Cereal grains/chaff and seeds of common weeds were also recorded within the assemblages from samples 3 and 4, although at a very low density. However, it was noted that pit F2 (sample 3) also contained a single sedge (*Carex* sp.) nutlet and a number of hawthorn (*Crataegus monogyna*) fruit stones.

Charcoal/charred wood fragments were present throughout, occurring at especially high densities within the assemblage from sample 1. This sample was taken from the fill of a large sub-rectangular pit (F28), which possibly contained pyre debris or hearth waste, and it was noted that much of the charcoal was very distinctly flaked, possibly implying that the material had been burnt at extremely high temperatures. Although the assemblage also contained splinters of burnt stone and small pellets of burnt or fired clay, there was nothing to indicate that any *in situ* burning had occurred within the pit.

Other remains were also noted within all four assemblages. These included black porous and tarry residues (all of which were probably derived from the combustion of organic remains at very high temperatures), small fragments of bone (many of which were burnt/calined), and vitreous globules. The latter were also probably derived from the high-temperature combustion of straw/grass or silica-rich ash. Small coal fragments (coal 'dust') were present throughout, but it was thought most likely that these were intrusive within the feature fills.

Conclusions

In summary, although plant macrofossils other than charcoal/charred wood are generally scarce, the assemblage from sample 2 appears to derive from a small deposit of charred cereal-processing waste. Although such material may be indicative of nearby agricultural activity, it is equally likely that the processing waste may have been used as tinder or fuel within domestic hearths or, possibly, in 'industrial' ovens/kilns. Whatever the taphonomy of the assemblage, it would appear that cereal production/processing may have been of importance to the local economy, although it is, perhaps, surprising that other cereals, particularly barley and oats (which are well suited to production in coastal areas), are not represented within the assemblage (cf contemporary material from a Middle Iron Age granary at St Osyth, Essex (Fryer 2007).

The condition of the charcoal within sample 1 almost certainly indicates that the material was burnt at an extremely high temperature but, as the assemblage is so limited in composition, the precise nature of the deposit remains unclear. Although samples 3 and 4 do contain cereals and weed seeds, the density of material is low, and it is thought most likely that the macrofossils which are recorded probably derive from scattered refuse which was accidentally incorporated within the feature fills. The presence of the hawthorn fruit stones within sample 3 is a little puzzling, although they could simply be indicative of the combustion of small quantities of hedge brush.

6.11 Radiocarbon dating

Single samples were submitted for radiocarbon dating from two features, pit F28 and pit F31. Copies of the detailed dating certificates produced by the Scottish Universities Environmental Research Centre are attached as Appendix 1.

The sample from F28 SUERC-50693 (GU32757) was on charcoal/charred wood of undetermined species and produced a date of range of 2197-1981 BC at 95.4% probability.

The sample from F31 SUERC-50694 (GU32758) was on cereal grain and produced a date of range of 363-185 BC at 95.4% probability.

7 Discussion (Fig 2)

Late Neolithic/Early Bronze Age-Bronze Age (Period 1)

The earliest recognised activity on the site is dated to the late Neolithic/Early Bronze Age. One pit was dated to this period based on a single radiocarbon date and a small sherd of possible Beaker pottery. The nature of the activity or occupation represented by this feature is not clear. The pit contained several discrete deposits of wood burnt at high temperature, possibly indicating clearance of woodland, although the wood was not burnt within the pit itself. No evidence of any intensive occupation dating to this period in the form of worked flint assemblages or closely-dated pottery was recovered, although two other pits dated to the late Neolithic/Early Bronze Age have previously been excavated in the general area (Gifford and Partners 1999, 52 and fig 2, trenches F and G).

Activity in the Middle-Late Bronze Age also appears limited and is associated with just one feature, ie a gully or small ditch in the western part of the site. This contained Deverel-Rimbury type pottery and a sherd of fine ware more typical of the Late Bronze Age. The Deverel-Rimbury pottery, representing sherds from several vessels, could suggest a domestic assemblage. However, in the absence of other features or significant quantities of residual pottery which can be dated to this period, it appears rather isolated and it may represent more episodic activity such as that associated with burial. It should be noted that no evidence for significant settlement or activity at this date has been recognised in any of the adjacent trial-trenches (Gifford and Partners 1999, fig 2).

Late Bronze Age-Early Iron Age (Period 2)

A number of features could be more or less closely dated to Period 2 as they contained flint-tempered pottery of post-Deverel-Rimbury type, although generally only in moderate quantities. However, much of this pottery is not sufficiently diagnostic to allow confident close dating within the period of its broad Late Bronze Age-Early Iron Age currency.

The character of these features appears to mark a distinct break from that of Period 1, indicated by the digging of a number of ditches which physically divide the land area. A few of the ditches might form parts of enclosures located in this area, and one ditch corner and alignment with another ditch length suggest the corner of such an enclosure. A large feature containing a significant number of finds might represent a pit or water hole, although it could also be the terminal of a ditch. The finds from this feature and the pottery recovered from the other ditches and pits would indicate their proximity to a settlement area, although no evidence for any buildings belonging to this period was identified. The overall impression from the archaeology is of evolving land divisions formed by ditched boundaries, probably mainly agricultural, and close to or surrounding a settlement.

Middle Iron Age (Period 3)

Previous archaeological investigations undertaken on the extant earthwork ramparts of the 'Danish Camp' and within it have indicated that the main phase of activity here dates to the Middle Iron Age. While this dating seems to be broadly supported by the results of the excavation, with evidence of buildings and a larger number of finds dating to the Middle Iron Age, intensive activity here can be seen to begin in the Late Bronze Age or Early Iron Age period. Although it is uncertain whether activity at the site is continuous between the Late Bronze Age/Early Iron Age, Early Iron Age and Middle Iron Age, some form of continuity is possible, based on the number of ditches and their sequential development clearly over an extended period.

The most significant change on the site during the Middle Iron Age is the evidence for buildings with part of the area of one round-house, and almost certainly the area of another adjacent to it, both in the eastern part of the site. Both the round-houses are represented by lengths of curvilinear gullies, with one being a continuous feature extending beyond the site to the east (Round-house 1), and the other a short length of gully (Round-house 2). Round-house 1 post-dates an earlier ditch containing Middle Iron Age pottery, indicating a date firmly

within the Middle Iron Age period for this building. Measurements taken between the surviving curvilinear gullies of the two round-houses indicate that both structures were probably of similar size (about 12 m across) and, based on the inferred proximity of the roofs of the two structures, it is possible that they were not contemporary.

There was no evidence from the round-house gullies as to whether they formed construction trenches for the walls of the buildings or whether they were eaves-drip gullies at the edge of the roof for drainage. A curving line of post-holes closely following the outside of the ring-gully for Round-house 1 seem likely to relate to it, either structurally or, possibly, as part of a fence around it; however, the relationship remains speculative. Although a few post-holes were present within the area thought to be occupied by Round-house 2, these do not appear to necessarily relate to it and there was no clear indication of internal post-supports within the area of the two buildings.

While there is no evidence for entrances or their location, the continuous length of gully forming the west side of Round-house 1 suggests that the entrance was probably on the east side, as is common for most round-houses. Nothing remained of any internal surfaces within the round-houses. A pit located within the internal area of Round-house 1 contained carbonised material resulting from crop-processing which could have been used as fuel in a hearth or oven located in this area. This might be linked to activities which took place within the round-house, but this is not clear, and it might relate to sweepings from the second round-house or simply represent activities carried out around this area.

Another feature possibly underlining the occupation on the site at this time is a large, flat-bottomed pit which is most easily interpreted as a large storage pit. This type of pit forms a significant part of the archaeology encountered on many Iron Age sites which, in the main, represent the bulk storage of grain below ground.

Although not closely datable, other possible structures on the site in the Middle Iron Age are indicated by post-holes. Although no recognisable structures could be identified from the plan of the post-holes, some may be associated and possibly represent parts of fence-lines, drying-racks, tethering-posts and even, maybe, an earlier phase of round-house.

The environmental finds (animal bone and plant macrofossils) recovered from the features dated to the Middle Iron Age reflect aspects of a site economy based around farming activities including cereal-processing and livestock husbandry, common to most settlements during later prehistory. A possible well may have helped supply water for livestock as well as industrial and domestic needs, and the identification of boundary ditches confirms that the land within the enclosure was divided into sub-sections and that these were orientated on the same alignment as the surrounding ramparts.

One significant aspect of the occupation in the Middle Iron Age period is the indication of some status for the site during that time. This is implied by the find of a bronze terret-ring from a horse-drawn cart/chariot, although it is a relatively plain example in comparison with some other highly decorated examples. Terret-rings are associated with horse-drawn vehicles owned by the élite. Horse-drawn vehicles, described as chariots, are specifically mentioned by Julius Caesar in relation to élite warriors in Late Iron Age Britain (Julius Caesar, *The conquest of Gaul*, IV.33). Also, the remains of carts or chariots with these types of metal fittings are found among élite burials of the Yorkshire Arras culture during the Middle-Late Iron Age period (Stead 1991).

Some external contacts can also be inferred from the pottery. Some of the burnished fine ware bowls are tempered with glauconite and, although not unusual among Iron Age assemblages in the region, they would have had to be imported into the site from outside, implying some level of wider social relations and/or political contacts. It can be noted that the overall quantity of pottery recovered from features of this date is also larger, but this is probably due, in part, to the presence of occupation directly on the excavation area in the Middle Iron Age.

Late Iron Age-Roman and post-Roman (Period 4)

Only a very few pottery sherds could be dated to the Late Iron Age and Roman period, indicating that it had probably occurred by or during the Late Iron Age, although close dating of the abandonment of the site is difficult. This supports the evidence from the work undertaken on the ramparts by Gifford and Partners (Gifford and Partners 1999) and the AOC Archaeology Group (AOC 2005), which suggested that, by the time of the Roman conquest, the defended site within the ramparts had been abandoned and the defensive ditches partially infilled. However, a ditch identified during this investigation is probably Roman (containing mostly residual finds), and significant Roman finds have been recovered from elsewhere within the area enclosed by the earthwork (Gifford and Partners 1999; Mattinson 2005) as well as during the construction of the present Officers' Mess during the 1930s (Fig 2). This suggests that there was some use of the land within the enclosure in the Roman period.

Following the Roman period, the area appears to have maintained an essentially open, rural character until the mid-19th century, when the garrison was established. No evidence was uncovered relating to the possibility that the earthwork enclosure of the 'Danish Camp' might have been occupied by the Scandinavian raiders in AD 894.

8 Acknowledgements

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Note: all CAT fieldwork reports are available online in .pdf format at <http://cat.essex.ac.uk>

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10 Glossary

Anglo-Saxon	period from <i>circa</i> AD 410 to Norman conquest of AD 1066
AOC	AOC Archaeology Group
AOD	above Ordnance Survey datum point based on mean sea level at Newlyn, Cornwall
Beaker	late Neolithic to early Bronze Age
Bronze Age (BA)	period from <i>circa</i> 2,500 to 700 BC
CAT	Colchester Archaeological Trust
CBA	Council for British Archaeology
CBM	Ceramic Building Material, ie brick and tile
context	specific location on an archaeological site, especially one where finds are made, usually a layer or a feature
daub	clay used in construction (eg, of a wall), often found burnt
EAA	East Anglian Archaeology
EAH	Essex Archaeology and History
EBA	Early Bronze Age, <i>circa</i> 2,500-1,500 BC
ECC	Essex County Council
EHHER	Essex Historic Environment Record, held by the ECC
EIA	Early Iron Age, <i>circa</i> 800-400 BC
enclosure	a rectangular, circular or other area defined by a ditch
ERO	Essex Record Office
faunal	animal
feature	an identifiable thing like a pit, a wall, a drain, a floor; can contain 'contexts'
HEM	Historic Environment Management team (ECC)
IfA	Institute for Archaeologists (formerly the Institute of Field Archaeologists)
Iron Age (IA)	period from 700 BC to Roman invasion of AD 43
layer	distinct or distinguishable deposit of soil
LBA	Late Bronze Age, <i>circa</i> 1,000-800 BC
LIA	Late Iron Age, <i>circa</i> 150 BC-AD 43
lithics	literally 'stones', actually 'flints'
MBA	Middle Bronze Age, <i>circa</i> 1,500-1,000 BC

medieval	period from AD 1066 to <i>circa</i> 1500
Mesolithic	after melting of ice sheets, <i>circa</i> 10,000-4,500 BC
MIA	Middle Iron Age, <i>circa</i> 400-150 BC
MNE	Minimum Number of Elements
modern	period from the 19th century onwards to the present
natural	geological deposit undisturbed by human activity
Neolithic	period from <i>circa</i> 4,500 to 2,500 BC
NGR	National Grid Reference
PCA	Pre-Construct Archaeology
post-medieval	period from <i>circa</i> 1500 to <i>circa</i> 1850
prehistory	the years BC
quernstone	stone for grinding corn into flour
residual	something out of its original period context (eg a Roman coin in a modern pit)
Roman	the period from AD 43 to <i>circa</i> AD 410
U/S	unstratified, ie without a well-defined context
WSI	Written Scheme of Investigation

11 Contents of archive

One A4 document wallet containing:

1 Introduction

- 1.1 Copy of the evaluation brief issued by English Heritage
- 1.2 Copy of the WSI produced by CAT
- 1.3 Copy of Scheduled Monument Consent
- 1.4 Copy of the archaeological assessment by CAT
- 1.5 Risk assessment
- 1.6 1 x A3 site plan provided by developer
- 1.7 1 x A4 site plan provided by developer

2 Site archive

- 2.1 Site digital photographic record
- 2.2 Attendance register
- 2.3 Context sheets (F1-F10, L1-L5)
- 2.4 Finds register
- 2.5 Site photographic record on CD

3 Research archive

- 3.1 Monitoring (client) report
- 3.2 Finds report

Not in wallet

- The finds (less than one museum box)
1 x A3 section sheet

Distribution list:

David Andrews
Deborah Priddy, English Heritage
Ken Crowe, Southend Museum
Essex Historic Environment Record



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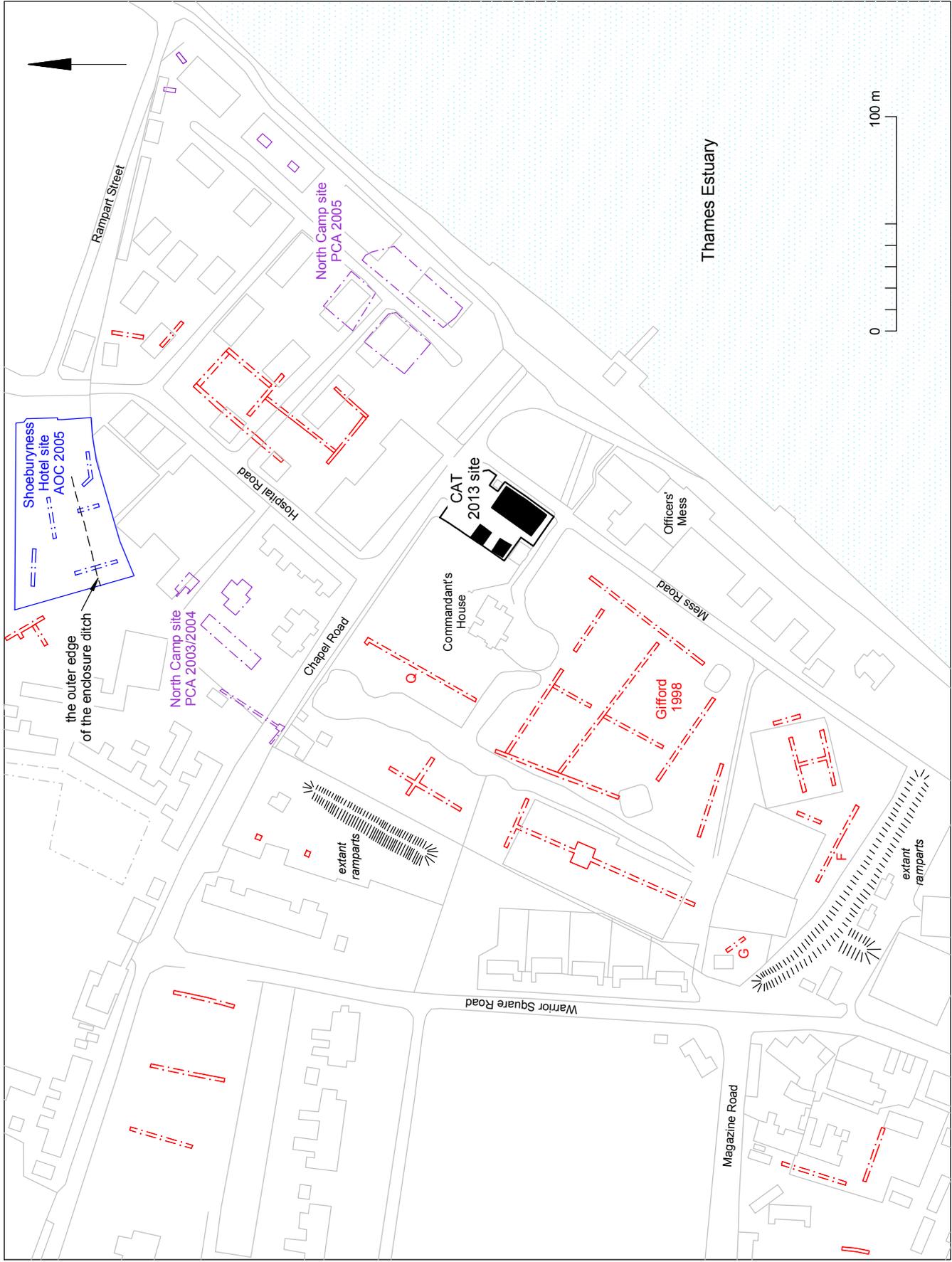
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date: 08.10.14

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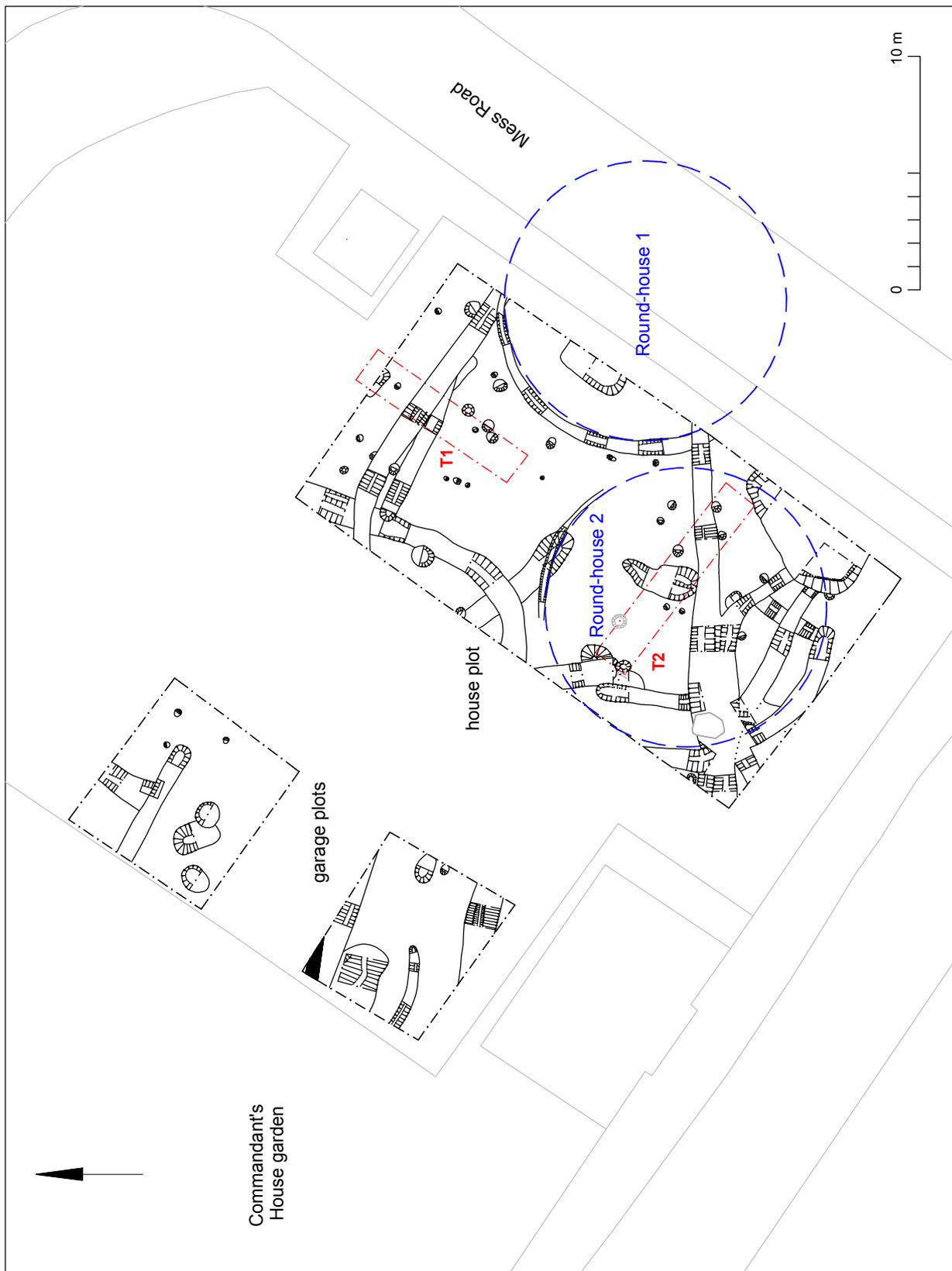
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Fig 1 Site location (marked by red dot).



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Fig 2 Excavation area, showing extant ramparts and previous archaeological work.



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Fig 3 Excavation area and features showing the two CAT evaluation trenches (red) and the location of the two Middle Iron Age round-houses (blue).

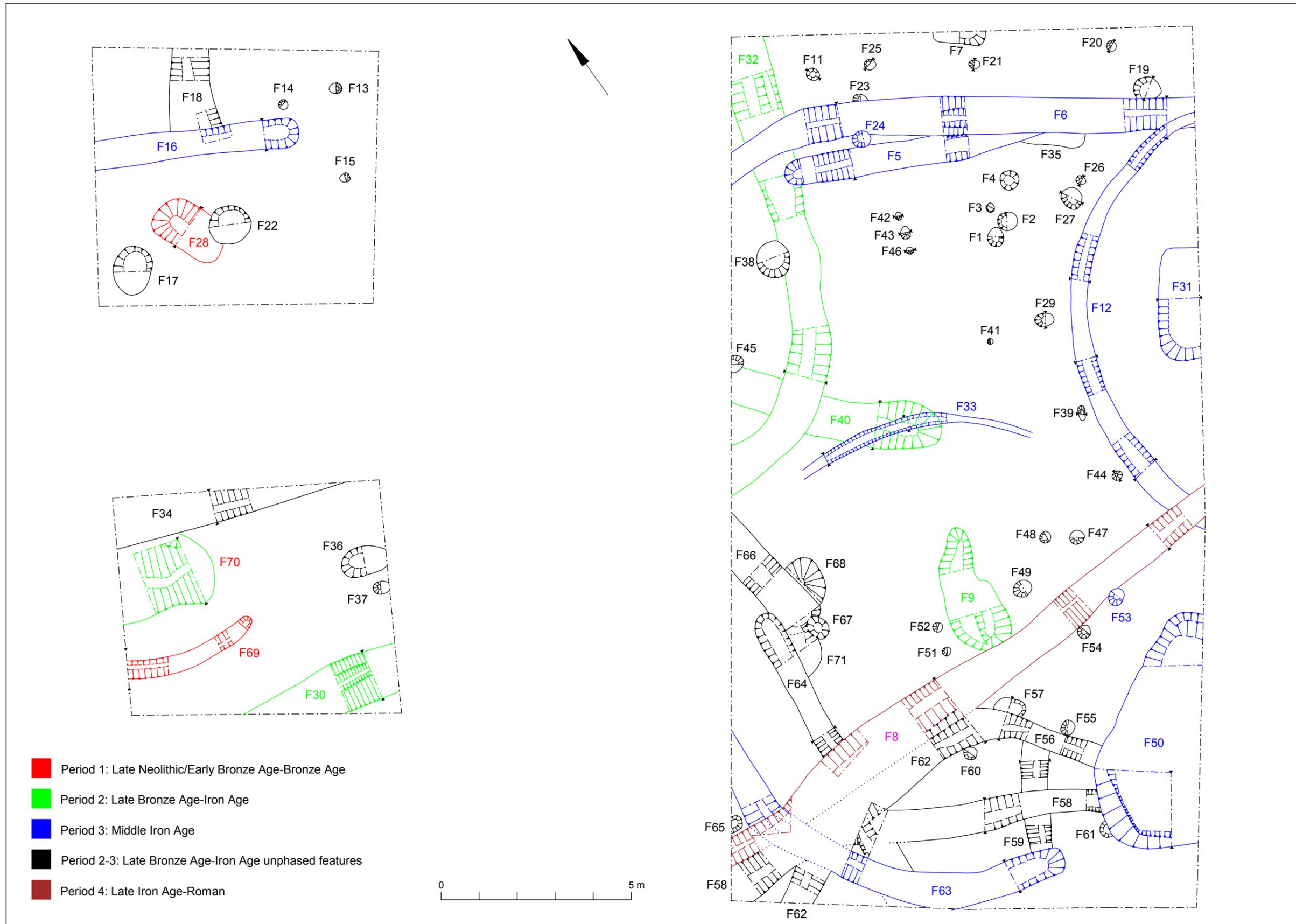


Fig 4 Site plan with phasing of the archaeological features.

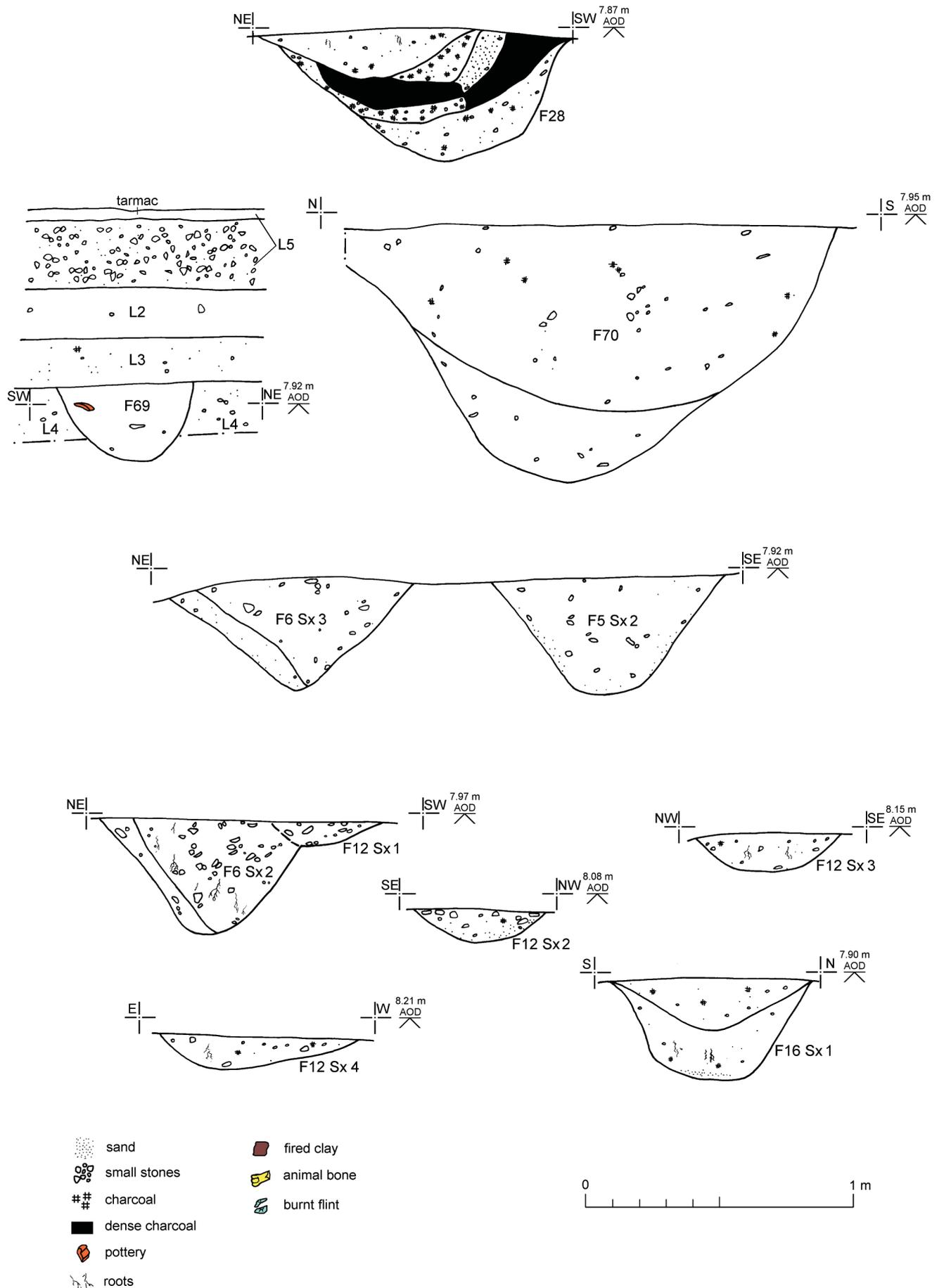


Fig 5 Sections 1: Late Neolithic/Early Bronze Age-Bronze Age (Period 1), Late Bronze Age-Early Iron Age (Period 2), and Middle Iron Age (Period 3) features.

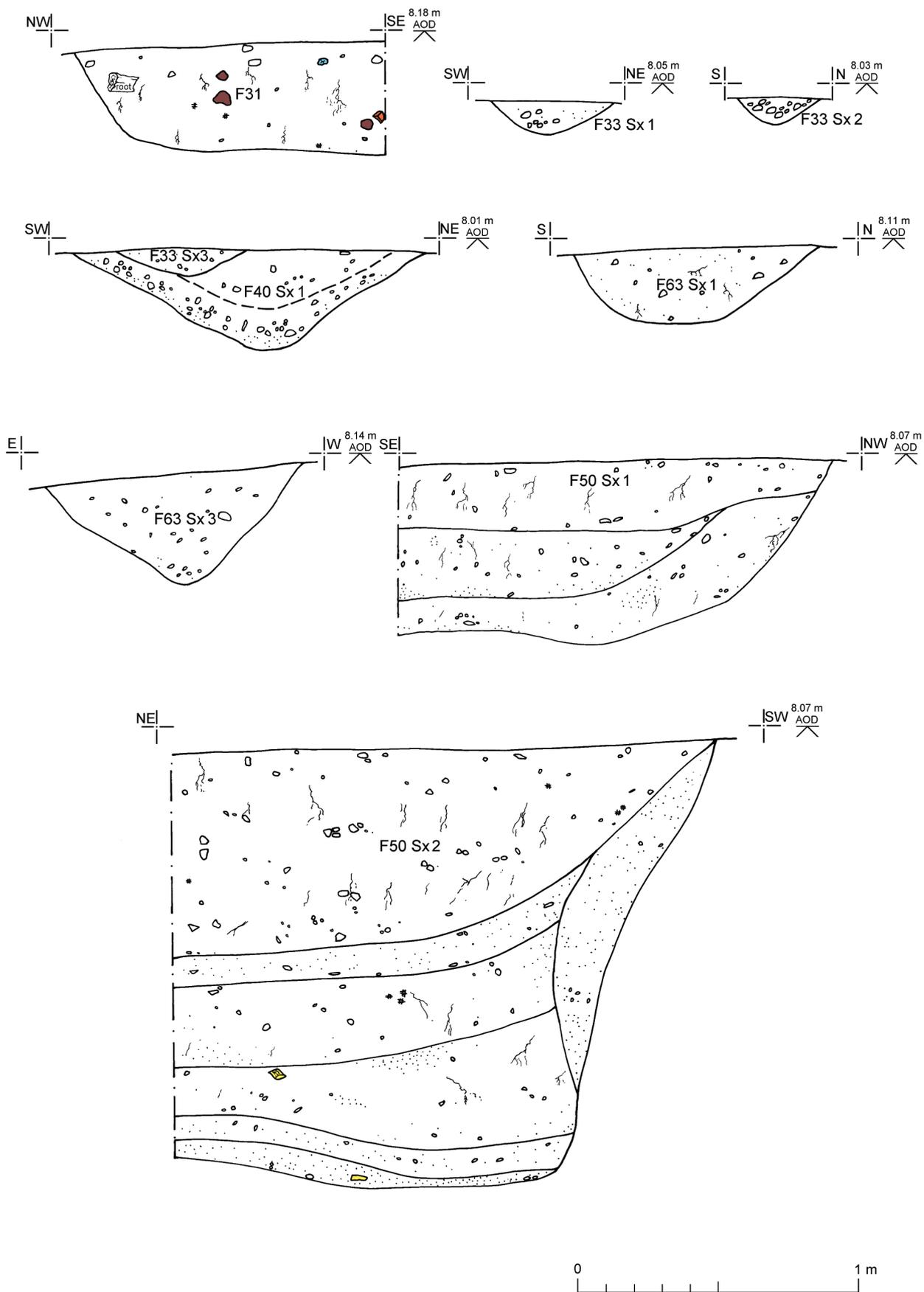


Fig 6 Sections 2: Middle Iron Age (Period 3) and unphased (Period 2-3) features.

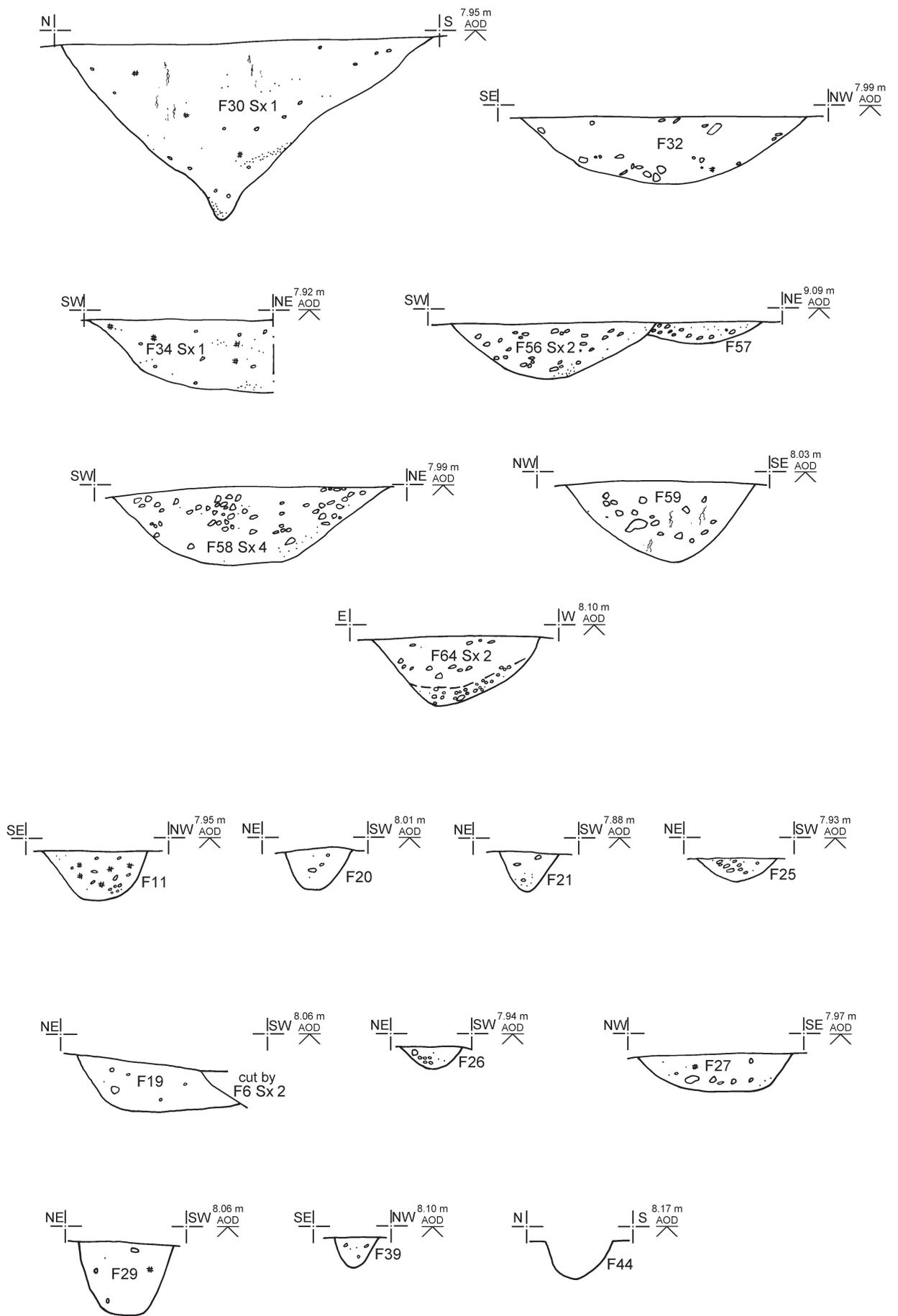


Fig 7 Sections 3: unphased (Period 2-3) features.

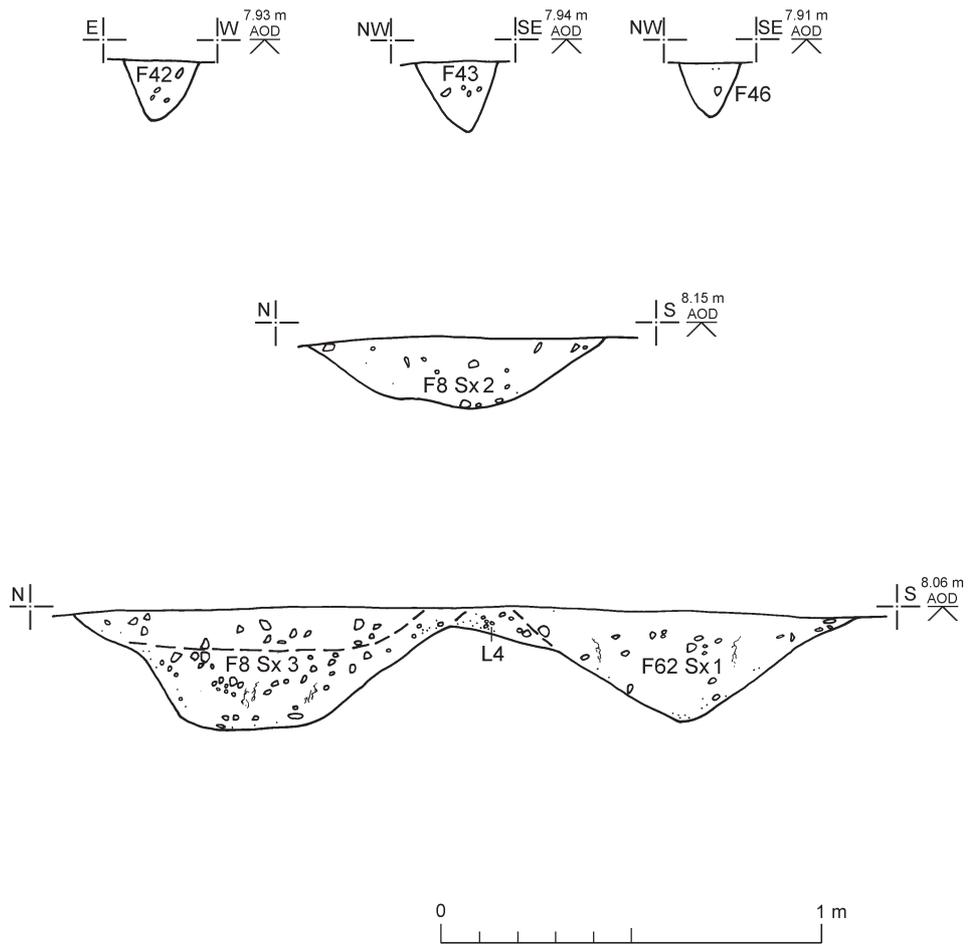


Fig 8 Sections 4: unphased (Period 2-3) and Late Iron Age and Roman (Period 4) features.

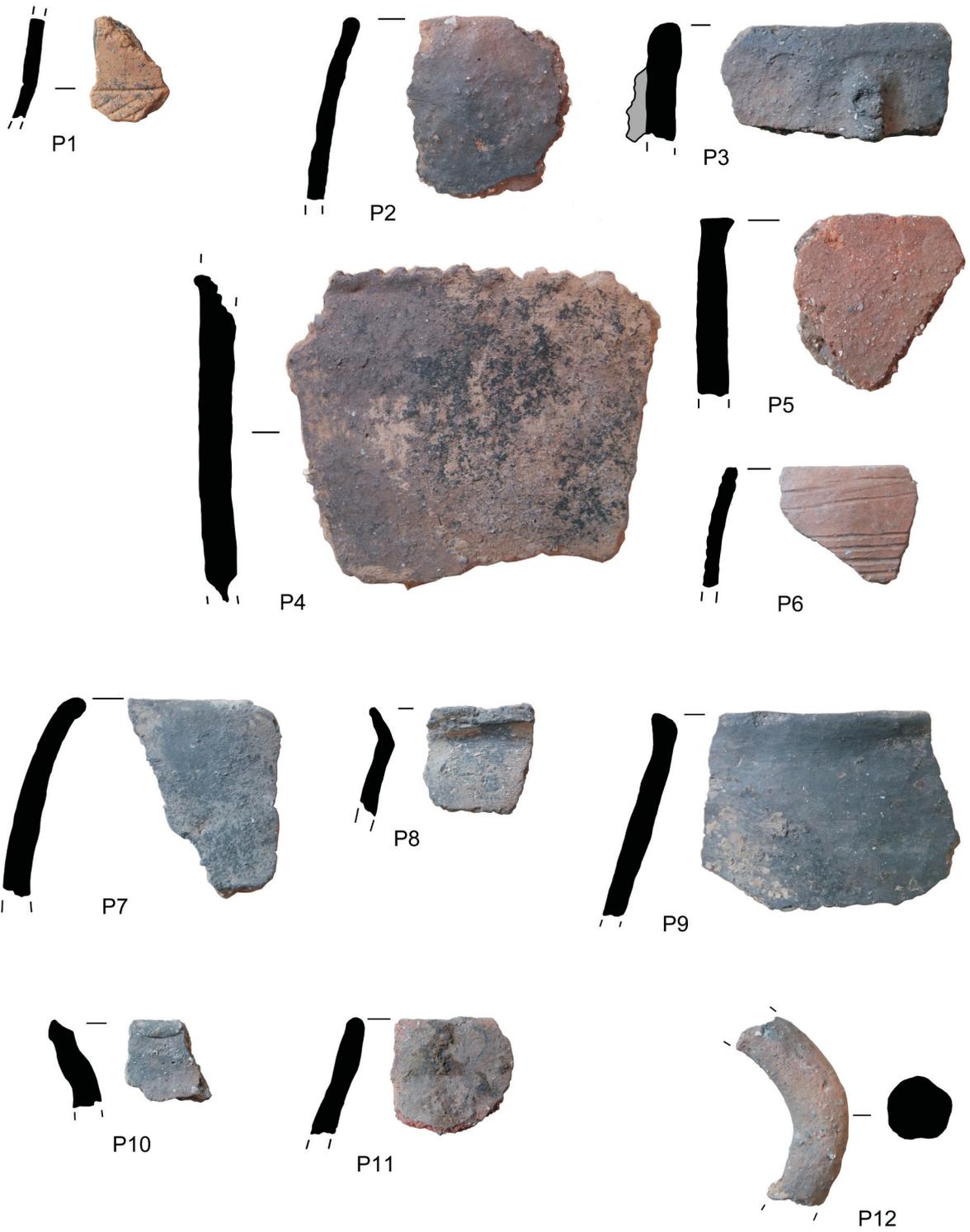


Fig 9 Prehistoric pottery (P1-P12).

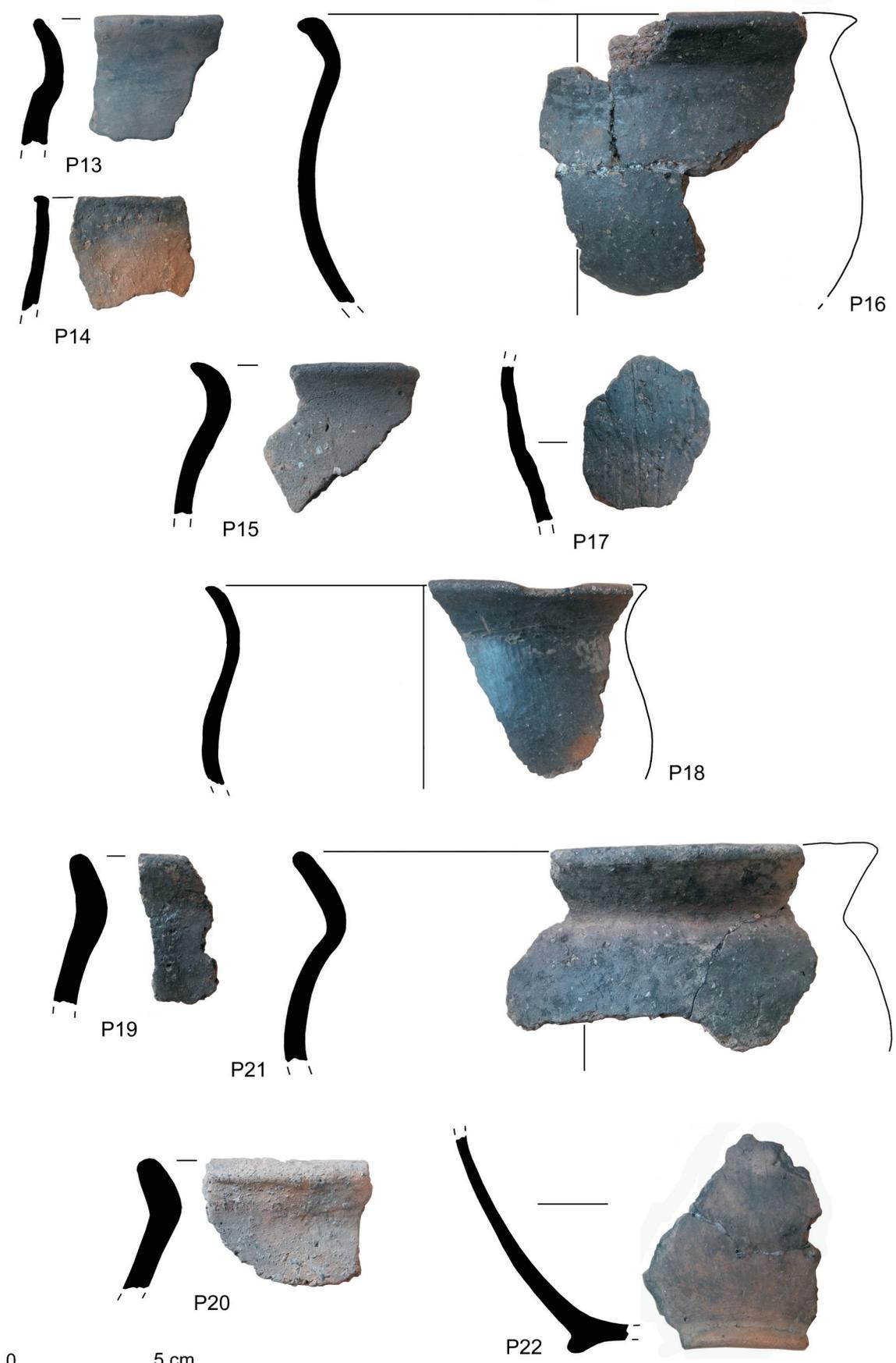


Fig 10 Prehistoric pottery (P13-P22).

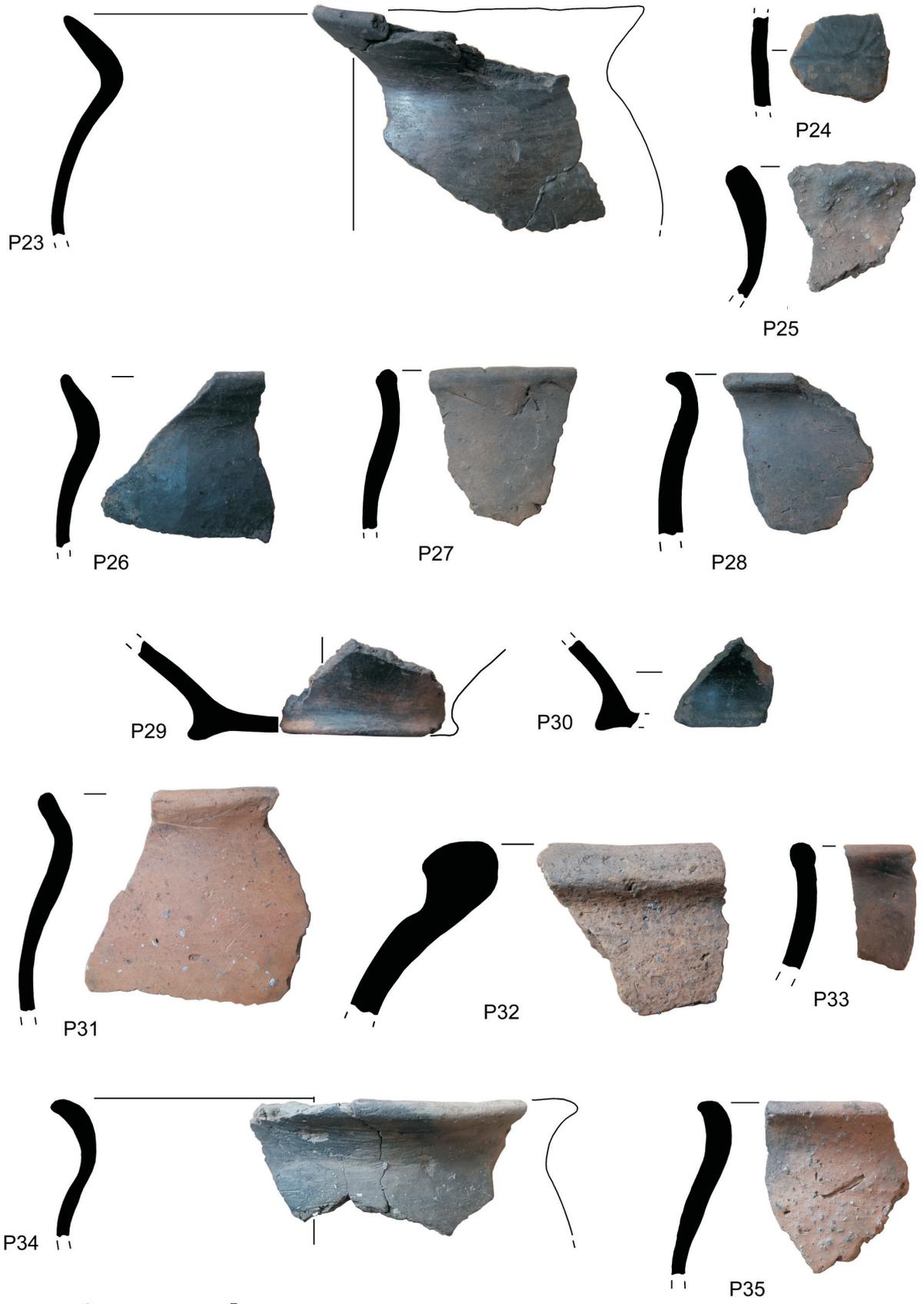


Fig 11 Prehistoric pottery (P23-P35).

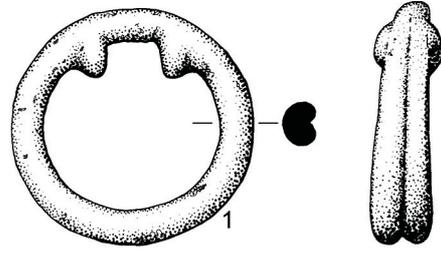


Fig 12 Small finds: cast terret-ring and clay bricks.

12 Appendices

Appendix 1: the radiocarbon-dating certificates



RADIOCARBON DATING CERTIFICATE

18 February 2014

Laboratory Code SUERC-50693 (GU32757)

Submitter Adam Wightman
Colchester Archaeological Trust
Roman Circus House
off Circular Road North
Colchester, Essex, CO2 7GZ

Site Reference Shoebury Garrison
Context Reference F28
Sample Reference 1

Material charcoal/charred wood : unknown

$\delta^{13}\text{C}$ relative to VPDB -25.1 ‰

Radiocarbon Age BP 3697 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 18/02/2014

Checked and signed off by :- *B. Tuzney*

Date :- 18/02/2014

Calibration Plot

OxCal v4.1.7 Bronk Ramsey (2010); r:5; Atmospheric data from Reimer et al (2013);

SUERC-50693 (3697,29)

68.2% probability

2135 (17.6%) 2112calBC

2103 (50.6%) 2036calBC

95.4% probability

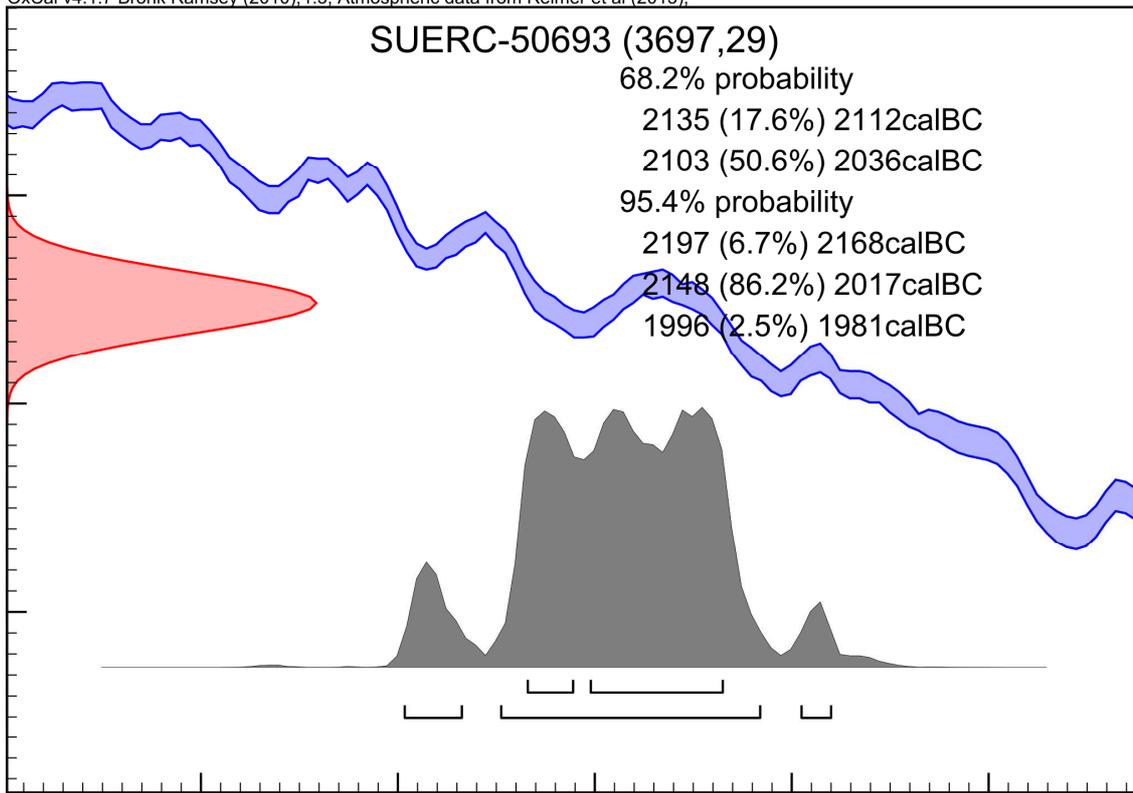
2197 (6.7%) 2168calBC

2148 (86.2%) 2017calBC

1996 (2.5%) 1981calBC

Radiocarbon determination (BP)

3800
3600
3400



Calibrated date (calBC)

2300 2200 2100 2000 1900



RADIOCARBON DATING CERTIFICATE

18 February 2014

Laboratory Code SUERC-50694 (GU32758)

Submitter Adam Wightman
Colchester Archaeological Trust
Roman Circus House
off Circular Road North
Colchester, Essex, CO2 7GZ

Site Reference Shoebury Garrison
Context Reference F31
Sample Reference 2

Material cereal grain : unknown

$\delta^{13}\text{C}$ relative to VPDB -21.5 ‰

Radiocarbon Age BP 2195 \pm 29

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email g.cook@suerc.gla.ac.uk or telephone 01355 270136 direct line.

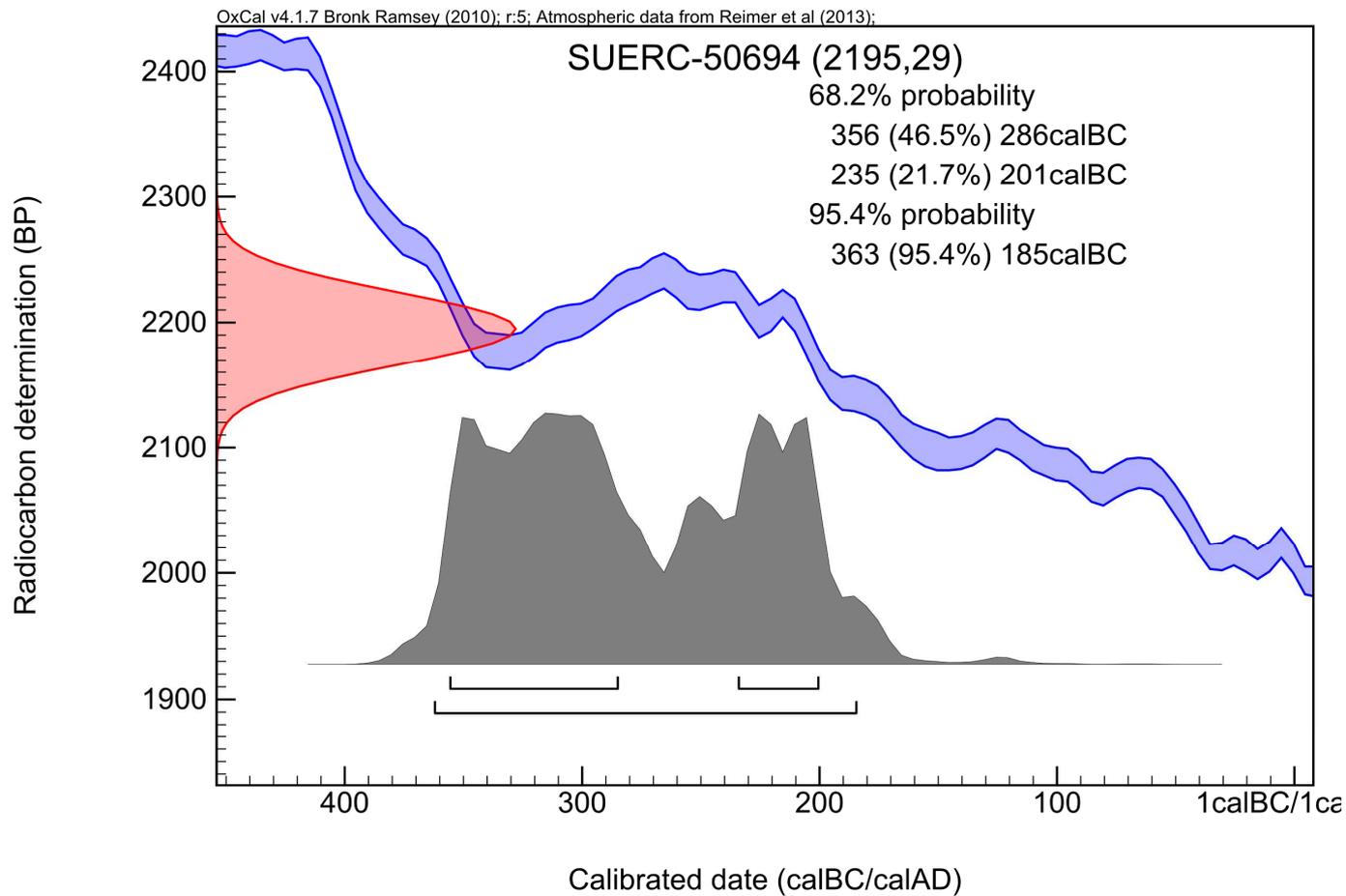
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 18/02/2014

Checked and signed off by :- *B. Tuzney*

Date :- 18/02/2014

Calibration Plot



Appendix 2: Pottery

Inclusions:

BO - burnt organic matter

FL - flint

GL - glauconite

GR - grog

QZ - quartz

SA - sand

VT - vegetable temper

SH - shell

Colour:

OX - oxidised

POX - part oxidised

R - red

B - brown

G - grey

cxlt no	finds no	cxlt type	Find type	Finds description	Fabric incs	freq inc	Fabric code	form	surface	colour	no	Wt/g	abr	Spot date
F1	1	pit	pot	Pottery prehistoric (2@ 19 g) Fabric HMF, red oxidised surface	FL	(S2-M1)	A			OXR	1	11		Early Iron Age-Middle Iron Age
F1	1	pit	pot	Pottery prehistoric (2@ 19 g) Fabric HMF, red grog and sparse flint	FL	(M2-L1)	B			R	1	8	*	
F4	3	pit	pot	Pottery prehistoric (1@ 39 g) Fabric HMF, vertical wipe marks, black surface stain(?)	FL SA	(M-L1) (S-M1)	H		F W	R	1	39		Late Bronze Age/Early Iron Age
F4	22	pit small	pot	Pottery prehistoric	SA FI/QZ	(S-M2) (S-M1)	I		B	R	1	11		Middle Iron Age
F4	22	pit small	pot	Pottery prehistoric flint with mixed sand grains - fragments	FL SA	(S-M2 L1) (M-L1)	H		W	OXR	1	7		? Iron Age
F4	22	pit small	pot	Pottery prehistoric possible handle scar rough, uneven	GR FL/QZ	(M2) (M1)	D	Thick sherd		OXB	1	11		Iron Age- ?Late Iron Age

F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric	FL	(S-M2)	A			POXR	1	5	*	
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric	FI	(S2-M1)	A			R	1	27		Early Iron Age-Middle Iron Age?
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric	FL	(M1)	A	E jar rim	B ?	R	1	23	*	Early Iron Age-Middle Iron Age
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric	FL	(M-L1)	C		B	R	1	5		Early Iron Age-Middle Iron Age
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric (total 44@ 623 g) Fabric HMS (1@ 24 g) rim from a bowl/jar with simple everted rim, dark brown-grey surfaces (Middle Iron Age)	SA	(S3)	K	E jar rim	B	R	1	24		Middle Iron Age
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric joining sherds from a slack S shape profile, smoother dark surfaces, surface burnt residue	FL GR	(S-M2) (S1)	D	E jar rim	B	R	3	66		
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric neck sherd, burnished on neck, body plain	FL	(S-M2)	A			R	1	13		
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric rim sherd, burnished, simple thickened or slightly everted	FL	(S-M2)	A	Rim piece/ fragment	B	R	1	2		
F5 (Sx 1)	4	ditch fill (upper)	pot	Pottery prehistoric several body sherds join together, mix of buff oxidised and grey surfaces (Early Iron Age, possibly Middle Age) some abraded	FL	(S-M2)	A			POXB	35	392	(*)	
F5 (Sx 1)	6	ditch fill (upper)	pot	Pottery prehistoric (1@ 16 g) Fabric HMF, dark grey burnished surface	FL	(S-M2)	A		B	R DG	1	16		Early Iron Age-Middle Iron Age
F5 (Sx 2)	28		pot	Pottery prehistoric	FL	(M-L1)	C			RG	1	7	*	
F5 (Sx 2)	28		pot	Pottery prehistoric upright, slightly flared, flat-topped rim	FL	(S-M2 L1)	B	Large jar rim		POXR	1	19		
F5 (Sx 2)	28		pot	Pottery prehistoric , thick sherds SV, join	FL	(S-M2 L1)	B			OXR	2	91		

F5 (Sx 3)	43	pot	Pottery prehistoric base, probably part of grey pot, flat base, rounded edge	FL	(S-M2)	A	Base edge	RG	1	3	*
F5 (Sx 3)	43	pot	Pottery prehistoric body sherd with slash decoration of angled, irregular grooves, ?dark grog in fabric	FL GR	(S-M1) (M1)	D	Body sherd	R	1	16	
F5 (Sx 3)	43	pot	Pottery prehistoric probably part of one pot	FL	(S-M2)	A		RG	3	10	*
F5 (Sx 3)	43	pot	Pottery prehistoric probably part of one pot	FL	(S-M2 L1)	B		OX	3	54	
F6	9	pot	Pottery prehistoric	FL	(S-M1)	A		RG	1	3	*
F6	9	pot	Pottery prehistoric	FL	(M-L2)	C		RG	1	3	
F6	9	pot	Pottery prehistoric possibly part of a pot from F5(4)	FL	(S-M2)	A		AXB	2	64	
F6	9	pot	Pottery prehistoric prob from footring bowl, simple flaring rim, rounded body, vertical burnish on body, horizontal on rim	FL	(S2-M1)	A	Bowl rim (fine)	RB	1	29	Early Iron Age-Middle Iron Age
F6 (Sx 1)	7	pot	Pottery prehistoric (1@ 3 g) Fabric HMF, abraded, buff oxidised fabric, grey surface	FL	(S-M2)	A		R	1	3	Early Iron Age-Middle Iron Age
F6 (Sx 2)	20	pot	Pottery prehistoric	FL	(S-M2)	A		OXR	1	7	
F6 (Sx 2)	20	pot	Pottery prehistoric footring base, sandy fabric	FL SA	(S-M1) (S3)	I	Footring base	RB	1	7	Early Iron Age-Middle Iron Age
F6 (Sx 2)	20	pot	Pottery prehistoric simple everted rim, burnished on exterior	FL SA	(S-M1) (M1)	H	Jar rim	R	1	15	Early Iron Age-Middle Iron Age
F6 (Sx 2)	20	pot	Pottery prehistoric surface voids from burnt out organic matter	SA VT	(S-M2)	N		R	3	16	Middle Iron Age
F6 (Sx 3)	27	pot	Pottery prehistoric	FL	(S-M2)	A		OXR	1	13	
F6 (Sx 3)	27	pot	Pottery prehistoric	FL	(M-L1)	C		OXR	1	17	
F8	14	pot	Pottery prehistoric	FL SA	(S-M2) (S-M2)	H		OXR	1	10	
F8	14	pot	Pottery prehistoric , rounded, slightly flattened oval section (see Havis & Brooks 2004, fig 33, no 38 for Early Iron Age)	FL	(S-M2 L1)	B	Handle	POXR	1	28	Late Bronze Age-Early Iron Age

F8	75		pot	Pottery prehistoric	FL SA	(S-M1) (S3-M1)	H		B	R	1	7	Middle Iron Age
F8	75		pot	Pottery prehistoric probably a base sherd, indication of raised wall edge	FL	(M2-L1)	C	Flat base		OXR	1	25	
F8 (Sx 1)	8	ditch	pot	Pottery prehistoric external burnt residue	FL	(S-M2)	A			OXB	2	18	
F8 (Sx 1)	8	ditch	pot	Pottery prehistoric internal burnt residue	FL	(S-M2)	A			POXB	1	5	
F8 (Sx 1)	8	ditch	pot	Pottery prehistoric large pot, corner of flat base, tub-like vessel	FL	(L2)	C			R	1	10	
F8 (Sx 1)	8	ditch	pot	Pottery prehistoric large pot, vertical wiping on surface	FL SA	(S-M2) (S-M1)	B		W	OXB	1	40	
F8 (Sx 1)	8	ditch	pot	Pottery prehistoric - miscellaneous abraded sherds and sherd pieces, quite broken up	FL	(M-L1)	C			POXB	16	32	*
F8 (Sx 1)	58		pot	Pottery prehistoric internal burnt residue one sherd	FI	(S-M2 L1)	B			OX	1	21	
F8 (Sx 1)	58		pot	Pottery prehistoric SV, 5 sherds, 2 join, possibly part of one pot, some parallel wiping marks on surface	FL SA	(S-M2 L1) (M1)	H		w	OXB	4	47	
F8 (Sx 1)	58		pot	Pottery prehistoric thick-walled pot	FL	(S-M3 L1)	B			OXR	1	33	
F8 (Sx 2)	50		pot	Pottery prehistoric	FL	(S-M2)	A			OXB	1	6	
F8 (Sx 2)	50		pot	Pottery prehistoric	FL	(M-L2)	C			OXB	2	5	
F8 (Sx 2)	50		pot	Pottery prehistoric clear quartz sand inclusions, vertical burnish	FL SA QZ	(S-M2) (M1)	H	Large jar/bowl	B	R	1	66	Early Iron Age-Middle Iron Age
F8 (Sx 2)	50		pot	Pottery Roman SV 4 sherds all joining (large broken sherd), surface abraded off, appears to be Roman grey ware	GX		GX	Jar/bowl			1	24	* ?Roman (?mid 1st-2nd century)
F8 (Sx 3)	62		pot	Pottery prehistoric	FL SA	(M-L1) (M2)	H			R	1	5	
F8 (Sx 5)	69		pot	Pottery prehistoric	FL SA	(S-M1) (M2)	H			R	1	3	
F9	57	?pit/ throw hole	pot	Pottery prehistoric Rim with simple, slightly flattened top	FL	(S-M2)	A	Jar rim		OXR	1	20	Late Bronze Age-Iron Age

F9	57	?pit/ throw hole	pot	Pottery prehistoric rough, uneven	FL	(S-M2 L1)	B		W	R	1	20	Late Bronze Age-Iron Age
F12	11		pot	Pottery prehistoric SV, 2 sherds join, external burnt residue	FL	(S-M3)	A			R	1	31	
F12	11		pot	Pottery prehistoric SV, 3 sherds join	FL	(M-L3)	C			OXB	1	41	
F12 (Sx 2)	42		pot	Pottery prehistoric fine sandy fabric with sparse flint and surface voids from burnt-out organic matter	FL VT	(S-M1)	E			OXB	1	13	Early Iron Age-Middle Iron Age
F12 (Sx 2)	42		pot	Pottery prehistoric , dark grog	FL GR	(M-L1) (M1)	D			RG	1	2	*
F12 (Sx 2)	42		pot	Pottery prehistoric , sherds SV join, buff-brown surface, dark grey fabric, part wall and base	SA	(S3)	K	Footring base		OXB	2	58	Early Iron Age-Middle Iron Age
F12 (Sx 3)	48		pot	Pottery prehistoric	FL	(M-L1)	C			R	1	5	
F12 (Sx 3)	48		pot	Pottery prehistoric	FL SA	(S-M1) (M2)	H			OXB	1	2	
F12 (Sx 3)	48		pot	Pottery prehistoric	SA	(S3)	K		(B	R	1	4	Middle Iron Age
F12 (Sx 4)	51	annular gully	pot	Pottery prehistoric miscellaneous small sherds	FL/QZ	(S-M2) (M-L1)	B			R	7	15	
F12 (Sx 4)	51	annular gully	pot	Pottery prehistoric simple everted rim with rounded, slightly flattened top (similar to no 31) Possibly nos 30, 31, 32 all part of same vessel	FL/QZ SA	(S-M2) (M-L1)	H	Jar rim		R	1	18	Middle Iron Age
F12 Sx 4	51	annular gully	pot	Pottery prehistoric some flint and grog in a silty matrix	FL GR	(S-M1) (M1)	D	Rim small jar/bowl		R	1	4	?Middle Iron Age
F12 Sx 4	51	annular gully	pot	Pottery prehistoric simple everted rim with rounded, slightly flattened top (similar to no 39)	FL SA	(S-M2 L1) (M2)	H	Jar rim		OXB	1	20	?Middle Iron Age
F12 Sx 4	51	annular gully	pot	Pottery prehistoric simple everted rim with rounded, top; traces of white surface deposit on exterior and over rim, possibly a white coating; similar to no 30)	FL SA	(S-M2 L1) (S- M2)	H	Jar rim		POXB	1	37	?Middle Iron Age
F12 Sx 4	51	annular gully	pot	Pottery prehistoric simple everted rim, rounded top (2 joining sherds- broken), rough surface, dark grog Exterior sooted residue	FL/QZ GR	(M-L1) (M-L1) M1)	D	Rim large jar		R	1	110	Middle Iron Age-Late Iron Age?

F13	23	post-hole	pot	Pottery prehistoric sherd flake, ?residual	FL	(S-M2)	A				POXR	1	2	
F13	23	post-hole	pot	Pottery prehistoric thick sherd mixed grog-temper, smoothed surface	SA GR	(S-M2) (M-L1)	M	Large vessel, SJ?			OXR	1	46	Middle Iron Age-Late Iron Age
F13	23	post-hole	nat	Stone septaria fragment								1	4	*
F16 Sx 1	24	ditch	pot	Pottery prehistoric	FL	(S-M2 L1)	B				OXR	2	9	
F16 Sx 1	24	ditch	pot	Pottery prehistoric	FL GR	(S-L1) (M-L1)	D				R	1	4	*
F16 Sx 1	24	ditch	pot	Pottery prehistoric	FL SA	(S-M1) (S3)	H		B		R	1	2	
F16 Sx 1	24	ditch	pot	Pottery prehistoric	FL SA	(S2-M1) (S3)	H		B		R	1	4	?Middle Iron Age
F16 Sx1	24	ditch	pot	Pottery prehistoric	FL GR	(S-M1) (S1)	H		B		OXR	1	6	?Middle Iron Age
F16 Sx 1	24	ditch	pot	Pottery prehistoric slack-sided jar with everted rim, rounded top	SA	(S3)	K	Jar rim	B		R	1	17	
F16 Sx 1	24	ditch	pot	Pottery prehistoric flint and quartz sand with voids from shell	FL/QZ SH	(S-M1)	Q		B		R	1	13	Middle Iron Age
F16 Sx 1	24	ditch	pot	Pottery prehistoric flint-quartz sand	FL/QZ	(S-L1)	C				OXR	1	8	*
F17	25	pit	pot	Pottery prehistoric flat base, several sherds (2 join), probably same pot	FL	(S-M2 L1)	B	Base			OXB	4	70	
F17	25	pit	pot	Pottery prehistoric flint with quartz and some sparse grog, edge fragment from a slightly flaring, footring base	FL/QZ GR	(S-M2 L1)	D	Base, footring			OXR	1	6	Early Iron Age-Middle Iron Age
F17	25	pit	pot	Pottery prehistoric miscellaneous sherds with flint and sand temper	FL SA	(S-M2 L1) (S-M2)	H				OXR OXB POX	13	98	Early Iron Age-Middle Iron Age
F19	25	pit	pot	Pottery prehistoric	FL	(S-M2 L1)	B				POXR	1	9	
F27	36		pot	Pottery prehistoric	FL	(S-M2 L1)	B				OXR	1	12	
F27	36	pit/post-hole	pot	Pottery prehistoric fragments	FL	(S-M2 L1)	B				R	2	1	
F28	29	pit	pot	Pottery prehistoric sherd with slight carination at horizontal groove, area above(?) decorated with angled grooves (plain below),	FL SA (QZ)	(S-M1) (F3-M1)	H	decorated			OXR	1	6	(*) Late Neolithic/ Early Bronze Age ?Beaker

F30	31	ditch	pot	grooves abraded but indications of fine segments which probably indicate made with fine twisted cord or small cord, slightly abraded edges	FL	(S-M2 L1)	B				R	2	14			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric	FL	(S-M2 L1)	B				R	10	51			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric	FL	(S-M2 L1)	B				OXB	5	39			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric	FL	(S-M2 L1)	B				OXR	1	3			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric	FL VT	(S-M1 L1)	E				OXR	1	9			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric not heavily gritted on underside	FL	(S-M3 L1)	B	Base			R	1	25			Late Bronze Age-Iron Age	
F30	31	ditch	pot	Pottery prehistoric thick sherd with flint and red grog temper	FL GR	(S-M2) (S-2)	D	LV			OXB	1	34				
F31 (Spit 1)	32	pit	pot	Pottery prehistoric decorated sherd, pattern of burnished lines	SA BO	(S3) (S-M1)	K	Decorated sherd			R	1	12			Middle Iron Age	
F31 (Spit 1)	32	pit	pot	Pottery prehistoric base sherd flake	SA	(S-M1)	L	Base			R	1	2	*			
F31 (Sp 1)	32	pit	pot	Pottery prehistoric burnished inside of rim, fine sand fabric	FL SA	(M-L1) (S3)	H	Rim, jar/bowl, simple, everted, slightly thickened			R	1	6				
F31 (Spit 1)	32	pit	pot	Pottery prehistoric dark ?burnt organic matter in fabric	SA BO (GR?)	(S)	M?	LV storage jar?			R	1	17			Middle Iron Age-Late Iron Age	
F31 (Spit 1)	32	pit	pot	Pottery prehistoric miscellaneous sherds	FL	(S-M2)	A				OXR	2	65				
F31 (Spit 1)	32	pit	pot	Pottery prehistoric miscellaneous sherds	FL	(S-M2)	A				R	5	65				
F31 (Spit 1)	32	pit	pot	Pottery prehistoric miscellaneous sherds, fine sand	SA	(S3)	K				R	2	21			Middle Iron Age	

F31 (Spit 1)	32	pot	pot	Pottery prehistoric base with protruding foot, fine glossy, black burnish	GL	(3)	P	Base with protruding foot	B	R	1	14	Middle Iron Age
F31 (Spit 1)	32	pot	pit	Pottery prehistoric traces of finger indentations on top and exterior of rim, but appears not necessarily to be deliberate decoration	FL	(S-M1 L1)	B	Rim, large jar, everted, slightly thickened	OXR	OXR	1	27	
F31 (Spit 2)	32	pot	pit	Pottery prehistoric	FL	(S-M2)	A	Rim, slightly everted, flattened top	B	RB	1	9	Middle Iron Age
F31 (Spit 2)	32	pot	pit	Pottery prehistoric	FL	(S-M2)	A			R	5	24	
F31 (Spit 2)	32	pot	pit	Pottery prehistoric	FL GR	(S-M1) (M-L1)	D			RB	1	7	Middle Iron Age-Late Iron Age
F31 (Spit 2)	32	pot	pit	Pottery prehistoric	FL SA	(S1-M1) (M2)	H			OXB	1	5	
F31 (Spit 2)	32	pot	pit	Pottery prehistoric	SA	(S3)	K			R	1	7	
F31 (Spit 2)	32	pot	pit	Pottery prehistoric fine sand fabric	FL SA BO	(S1-M1) (S3)	H			OXR	1	10	
F31 (Spit 2)	32	pot	pit	Pottery prehistoric buff sherd with some quartz, flint and other sand, possibly some burnt flint	SA FL/QZ	(M-L1)	I			OXB	1	8	Middle Iron Age-Late Iron Age
F31 (Spit 2)	32	pot	pit	Pottery prehistoric common VT	SA VT	(M2)	N			R	1	6	Middle Iron Age-Late Iron Age
F31 (Spit 2)	32	pot	pit	Pottery prehistoric large storage jar rim, necked (probably indicates Late Iron Age date), plain shoulder, flattened top to rim (see Wilkinson 1988, fig 72, no 23 for Middle Iron Age LSJ)	FL GR VT	(M-L1) (S-M1)	S	Storage jar		OXB	1	97	Late Middle Iron Age-Late Iron Age
F31 (Spit 2)	32	pot	pit	Pottery prehistoric red and dark grog	FL GR	(S-M2) (M2)	D	Rim slightly everted,		RB	1	13	Middle Iron Age-Late Iron Age

F31 (Spit 2)	32	pit	pot			SA VT	(F3)	N	slightly beaded top Jar rim	B	RB	1	29		Middle Iron Age
F31 (Spit 2)	32	pit	pot		Pottery prehistoric slack-shouldered jar	SA GR	(F3) (L1)	M	Jar rim	B	RB	1	11		Late Middle Iron Age-Late Iron Age
F31 (Spit 2)	32	pit	pot		Pottery prehistoric small/fine fragments of mostly red grog	SA GR	(F3) (S1)	M		B	RB	2	39		Middle Iron Age
F31 (Spit 2)	32	pit	pot		Pottery prehistoric some dark grog	SA GR	(F3) (S1)	M		B	RB	1	9		Middle Iron Age
F31 (Spit 2)	32	pit	pot		Pottery prehistoric some dark grog	SA GR VT	(F3) (S1)	O		B	OXR	1	4		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	FL	(S1-M1)	A			R	3	49		
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	FL	(S-M2)	A			R	1	3		
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	FL	(M-L2)	C			OXB	3	35		
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA	(S3)	K			OXB	1	11	*	
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA	(S3 M1)	L	Base	B	R	1	50		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA	(S3-M2)	L		B	R	1	30		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA	(S3-M2)	L		B	R	1	5		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA	(S3-M1)	L		B	OXR	1	6		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric	SA VT	(S3-M2)	N		B	R	4	23		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric fine sandy fabric, sparse flint	FL SA	(S-M1) (S3)	H	Jar, everted rim		OXR	1	69		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric joining sherds, burnished on body and over rim	GL	(2-3)	P	Everted rim jar	B	R	4	68		Middle Iron Age
F31 (Spit 3)	32	pit	pot		Pottery prehistoric sandy fabric with grog-temper and some sparse flint	FL GR	(S-M1) (S-L1)	D	Jar, simple everted rim	B	R	1	30		Middle Iron Age

F31 (Spit 3)	32	pit	pot	Pottery prehistoric some sparse mixed grog inclusions	SA GR VT	(M2)	O			OXB	2	34	Middle Iron Age
F31 (Spit 3)	32	pit	pot	Pottery prehistoric some sparse flint, poss flint-temper though might be sand pieces; also possibly some grog	SA	(M2)	L	Base - short pedestal-type foot	B	OCB	1	21	
F31 (Spit 3)	32	pit	pot	Pottery prehistoric thick sherd, grog-tempered	GR	(M2)	GT W	Large jar	B	R	1	14	Late Iron Age
F31 (Spit 4)	32	pit	pot	Pottery prehistoric	FL	(S-M2 L1)	B			OXB	3	36	
F31 (Spit 4)	32	pit	pot	Pottery prehistoric	FL	(S-M2 L1)	B			R	1	4	
F31 (Spit 4)	32	pit	pot	Pottery prehistoric one small sherd with external and internal burnt residue deposits	FL	(S-M2)	A		B	R	1	9	Early Iron Age-Middle Iron Age
F31 (Spit 4)	32	pit	pot	Pottery prehistoric one sherd with vertical burnishing	FL SA	(M1) (S3)	H		B	R	2	26	Middle Iron Age
F31 (Spit 4)	32	pit	pot	Pottery prehistoric red grog	GR VT	(M1)	O?			OXR	1	3	
F31 (Spit 4)	32	pit	pot	Pottery prehistoric rim, simple rounded top, poss part of pattern(?) of wavy line indentations below rim, smoother/burnished surface, some sparse grog inclusions	SA GR	(F3-M1) (M1)	M	Jar	B	R	1	32	Middle Iron Age
F31 (Spit 4)	32	pit	pot	Pottery prehistoric some sparse grog	SA GR	(S-M1) (M1)	M		B	R	1	13	Middle Iron Age
F31 (Spit 4)	32	pit	pot	Pottery prehistoric thick sherd from large pot, unidentified, crazed, internal white/cream deposit , possibly water scale?	FL	(S-M2 L1)	B	LV		OXB	1	135	
F31 (Spit 4)	32	pit	pot	Pottery prehistoric voids probably from shell inclusions	FL SH	(S-M2) (M-L1)	Q			OXB	1	25	
F31 (Spit 5)	32	pit	pot	Pottery prehistoric	FL	(S-M2)	A			OXB	1	8	Late Bronze Age-Iron Age
F31 (Spit 5)	32	pit	pot	Pottery prehistoric	FL	(S-M1)	A		B	R	1	4	Middle Iron Age
F31 (Spit 5)	32	pit	pot	Pottery prehistoric base edge sherd	GL	(3)	P	Base, with slight footring	B	R	1	16	Middle Iron Age

F31 (Spit 5)	32	pot	pot	Pottery prehistoric red grog	FL GR	(S-M2) (M1)	D		B	R	1	16	Middle Iron Age
F31 (Spit 5)	32	pot	pit	Pottery prehistoric some white quartz sand, external burnt residue	SA FL/QZ	(S3) (M2)	I		B	R	1	6	Middle Iron Age
F32	35	pot		Pottery prehistoric	FL	(S-M2)	A		B	R	1	7	
F32	35	pot		Pottery prehistoric	FL	(S-M1)	A			OX	5	14	
F32	35	pot		Pottery prehistoric	FL	(S-M2)	A			R	5	5	
F32	35	pot		Pottery prehistoric flat base, everted wall (sand may not be added temper)	FL SA	(M-L2) (M2)	H	Jar base		POXB	1	18	*
F32	35	pot		Pottery prehistoric miscellaneous	FL	(S-M2 L1)	B			OXB	7	88	
F32	35	pot		Pottery prehistoric rim, everted simple	FL SA	(M-L1) (M1)	H	Jar/bowl rim		POXB	1	2	*
F32	35	pot		Pottery prehistoric sherds from SV, 2 join, possible shoulder carination	FL	(S-M2 L1)	B	Large jar		R	3	85	Late Bronze Age-Early Iron Age
F32 (Sx2)	44	pot	ditch	Pottery prehistoric	FL	(S-M1)	A			R	1	2	?Late Bronze Age-Iron Age
F32 (Sx2)	44	pot	ditch	Pottery prehistoric	FL	(S-M2 L1)	B			OXR	2	19	Late Bronze Age-Iron Age
F32 (Sx2)	44	pot	ditch	Pottery prehistoric edge of base	FL	(M-L2)	A	Base		OXR	1	13	Late Bronze Age-Iron Age
F32 (Sx2)	44	pot	ditch	Pottery prehistoric edge of base or small ?rim fragment	FL	(S-M2 L1)	B	Base		R	1	1	Late Bronze Age-Iron Age
F32 (Sx3)	52	pot		Pottery prehistoric	FL	(S-M2)	A			R	1	10	
F32 (Sx3)	52	pot		Pottery prehistoric	FL	(S-M2 L1)	B			OX	3	18	
F32 (Sx3)	52	pot		Pottery prehistoric	FL	(M-L2)	C			R	1	10	
F32 (Sx3)	52	pot		Pottery prehistoric simple slightly everted rim, slightly thickened top	FL	(S3-M2)	A	Rim		R	1	12	*
F33	41	pot	annular gully	Pottery prehistoric	SA	(S-M2)	L		B	R	1	3	Middle Iron Age
F33	41	pot	annular gully	Pottery prehistoric rim, simple, everted, rounded top, sandy fabric	FL SA	(S-M1) (S3)	H	Jar rim	B	R	1	7	Middle Iron Age
F33	89	pot	annular gully	Pottery prehistoric sandy fabric	FL SA	(S-M1 L1) (S3)	H		B	R	3	18	Middle Iron Age
F34	40	pot	ditch	Pottery prehistoric	FL	(S-M2 L1)	B			R	1	6	Late Bronze Age-Iron Age
F34	40	pot	ditch	Pottery prehistoric grey, abraded, rounded	FL	(S-M2 L1)	B			R	2	12	Late Bronze Age-Iron Age

F34	40	ditch	pot	Pottery prehistoric internal burnt residue one sherd	FL	(S-M2 L1)	B				OXR	2	17		Late Bronze Age-Iron Age
F35	10	pit	pot	Pottery prehistoric rim from a narrow mouth jar, simple, expanded with flat top, external burnt residue	FL	(S-M1 L1)	B	Rim jar	S		R	1	88		Late Bronze Age-Early Iron Age
F36	18	pit	pot	Pottery prehistoric	FL	(S-M2)	A				R	7	51		Late Bronze Age-Iron Age
F36	45	pit	pot	Pottery prehistoric	FL	(M2 L1)	C				R	1	7		Late Bronze Age-Iron Age
F37	46	post-hole	pot	Pottery prehistoric	SA	(S-M2)	L				R	1	10		Middle Iron Age
F38	47	pit	pot	Pottery prehistoric	FL	(M2 L1)	C				OXR	6	46		Late Bronze Age-Iron Age
F40	49		pot	Pottery prehistoric thick sherd prob from a large vessel	FL	(S-M1)	A				POX	1	14		
F40	49		pot	Pottery prehistoric thick, flat sherd probably from the base of large vessel	FL	(S-M2)	A				OX	1	48		
F47	63	pit	pot	Pottery prehistoric	FL	(S-M2)	A				R	1	2		Late Bronze Age-Iron Age
F50	54	pit (upper)	pot	Pottery prehistoric	SA	(S-M1 L1)	L				R	1	2		MIron Age
F50	54	pit (upper)	pot	Pottery prehistoric flint in a sandy fabric probably with some dark grog	FL GR	(S-M1)	D	Base, plain flat			POXB	1	29		Middle Iron Age-Late Iron Age?
F50	55	pit (mid)	pot	Pottery prehistoric	FL	(S-M1 L1)	B				OXB	1	3	*	
F50	55	pit (mid)	pot	Pottery prehistoric rim, simple, slightly everted, rounded top, slack-bodied jar	FL VT	(M-L2)	E	Rim jar			OXR	1	39		Middle Iron Age
F50	55	pit (mid)	pot	Pottery prehistoric , sandy sherd with flint temper	FL SA	(S-M2)	H				R	1	4		?Middle Iron Age
F50	66	pit (upper Sx2)	pot	Pottery prehistoric	FL	(M-L2)	C				OXB/R	5	13		
F50	66	pit (upper Sx2)	pot	Pottery prehistoric flint with some red grog	FL GR	(M-L1)	D				OXR	1	22		Middle Iron Age-Late Iron Age?

F50	66	pit (upper Sx 2)	pot	Pottery prehistoric QZ FL	SA	(S-M2)	L			R	1	2	Middle Iron Age
F50	66	pit (upper Sx 2)	pot	Pottery prehistoric sherds from a flat base(2 join) sand fabric	FL/QZ SA	(S-M2) (S-M2)	H	Base		OXB	3	20	Middle Iron Age?
F50	66	pit (upper Sx 2)	pot	Pottery Roman central knob from a lid with steam hole	GX		GX	Lid			1	15	Roman (mid 1st-2nd/3rd century?)
F50	68	pit (lower Sx 2)	pot	Pottery prehistoric	FL/QZ SA	(M-L1) (S-M1)	H			R	2	23	?Middle Iron Age
F50	68	pit (lower Sx 2)	pot	Pottery prehistoric	FL/QZ SA BO	(M-L1) (S-M1)	H			R	1	12	Middle Iron Age-Late Iron Age
F50	68	pit (lower Sx 2)	pot	Pottery prehistoric	FL SA	(S-M2) (S-M2)	H			POXB	4	76	Iron Age
F50	68	pit (lower Sx 2)	pot	Pottery prehistoric QZ/SA with pale grey grog	FL/QZ GR	(S-M1) (M-L1)	D		B	R	3	8	Middle Iron Age-Late Iron Age
F50	68	pit (lower Sx 2)	pot	Pottery prehistoric rim sherds (joining, broken), simple, everted rounded top, some pale/grey and dark grog); surface may be abraded	FL SA GR	(S-L1) (S3)	I	Rim, jar		POXB	1	42	Middle Iron Age (*)
F53	59	post-hole	pot	Pottery prehistoric some FL/SA in fine sand fabric	FL SA	(S-L1) (S3)	H			R	2	4	Middle Iron Age
F54	60	post-hole	pot	Pottery prehistoric	FL	(S-L1)	C		W	OXR	1	27	Late Bronze Age-Iron Age
F54	60	post-hole	pot	Pottery prehistoric some GR	FL GR	(S-M2 L1)	B			OXR	1	8	*
F57	65	pit	pot	Pottery prehistoric sandy fabric	FL/QZ	(M-L2)	C		W	POXR	1	34	Late Bronze Age-Iron Age
F58 (Sx 4)	65	ditch	pot	Pottery prehistoric	FL/QZ	(S-M2)	A			OXR	1	13	
F58 (Sx 4)	65	ditch	pot	Pottery prehistoric rim from a bowl?, flat/dished, some flint	FL/QZ SA GR	(S-M2) (S-M2)	J	Rim, open bowl		POXR	1	10	?Iron Age
F58 (Sx 4)	65	ditch	pot	Pottery prehistoric some sparse grog, burnt residue on exterior	FL	(S-L1)	C			R	2	10	

F58 (Sx 4)	65	ditch	pot	Pottery prehistoric SV, some flint, 2 joining sherds	FL/QZ SA	(M-L2) (S-M2)	H	LV		OXB	3	58		? Iron Age
F59	61	ditch	pot	Pottery prehistoric base, sherds join, slightly flaring wall, some flint/sand with sand temper	FL SA	(S-M1) (S-M2)	H	Base LV		R	3	94		? Iron Age
F62	63	ditch	pot	Pottery prehistoric	FL	(S-M2 L1)	B			OXR	1	18		Late Bronze Age-Iron Age
F63	15	ditch	pot	Pottery prehistoric body sherd with groove, quite bright orange red in cordon, grog pieces with rare/sparse large pieces of QZ and UN stone	FL/QZ UN GR	(both L1) (M-L1)	D?		B	OXR	1	16		Middle Iron Age-Late Iron Age?
F63	15	ditch	pot	Pottery prehistoric fine sandy fabric with chaff temper and surface voids	SA VT	(S3)	N		B	R	1	23		Middle Iron Age
F63	15	ditch	pot	Pottery prehistoric some small/sparse grog present	SA GR	(S3)	M		S	R	1	8		Middle Iron Age
F63	64	ditch	pot	Pottery prehistoric fragments including top of a rim, simple, everted, rounded	FL/QZ SA	(M-L1) (S-M2 L1)	H	Rim fragment	B	R	5	8		? Middle Iron Age
F63	64	ditch	pot	Pottery prehistoric some grog present	FL/QZ GR	(M-L1)	D			R	1	12		
F63 (Sx 2)	72	ditch	pot	Pottery prehistoric	FL SA	(S-M1) (S3)	H		B	R	2	20		Middle Iron Age
F63 (Sx 2)	72	ditch	pot	Pottery prehistoric fine sand fabric	FL	(S-M2)	A			R	1	15		? Iron Age
F63 (Sx 2)	72	ditch	pot	Pottery prehistoric pale/grey grog	FL GR	(S-M1) (M1)	D		B	R	4	12		Middle Iron Age-Late Iron Age
F63 (Sx 3)	71	ditch	pot	Pottery prehistoric	FL	(S-M2)	A		B	R	2	8		? Iron Age
F63 (Sx 3)	71	ditch	pot	Pottery prehistoric base, thick base from large vessel LSJ?, flaring wall, sandy fabric	FL/QZ	(S-M2)	A	Base, LSJ		R	1	85		? Iron Age
F64	73	ditch	pot	Pottery prehistoric	FL/QZ SA	(S-M2 L1)	H			OXB	1	6		Iron Age
F66	13	ditch (Sx 1)	pot	Pottery prehistoric	FL BO	(S-M1)	A			R	3	10		? Iron Age
F66	77	ditch (Sx 2)	pot	Pottery prehistoric one sherd surface abraded	SA VT	(S3)	N			R	2	27	(*)	Middle Iron Age

F66	77	ditch (Sx2)	pot	Pottery prehistoric sandy fabric	FL SA	(S-M2) (S3)	H			OXR	3	15	?Middle Iron Age
F66	77	ditch (Sx2)	pot	Pottery prehistoric sandy fabric	FL SA	(S-M2) (S3)	H			R	3	3	
F69	17	gully	pot	Pottery prehistoric flint and dark grog, part of small, vertical lug on body, rim upright, simple, rounded	FL GR	(S-M2 L1) (M1)	D	Rim with body lug		R	1	47	Bronze Age- (Early Iron Age?)
F69	17	gully	pot	Pottery prehistoric indentations along broken rim top? (see Court & Mephram 2003, EAH 34, fig 6.11) or stab decorated band on large urn broken at this point, interior of pot along this area missing entirely	FL	(S-M2 L1)	B	Urn sherd or bowl rim?, LV		R	1	213	?Bronze Age
F69	79	gully	pot	Pottery prehistoric	FL	(S-M2 L1)	B			POXR	3	6	
F69	79	gully	pot	Pottery prehistoric base, heavily gritted around underside edge	FL	(S-M2 L1)	B	Base, LV		POXR	1	103	Late Bronze Age-Early Iron Age
F69	79	gully	pot	Pottery prehistoric red-brown grog, abraded sherd, ?intrusive Iron Age sherd	SA GR	(S3) (M1)	D			-	1	4	Middle Iron Age (?intrusive)
F69	79	gully	pot	Pottery prehistoric rim, simple upright rim, slightly flattened, rounded top, beaker or bowl (probably a bowl form) with brownish orange surface and incised groove decoration, Grooved ware or Beaker?	FL SA	(S-M1) (S3)	H	Rim, beaker/ bowl		B	1	11	Late Neolithic/ Early Bronze Age
F69	79	gully	pot	Pottery prehistoric rim, simple, rounded, slightly ?in-curving rim	FL	(S-M2 L1)	B	Rim bowl/jar		R	1	32	Late Bronze Age
F69	79	gully	pot	Pottery prehistoric simple upright rim, flat top	FL	(S-L2)	C	Rim, LV		OXR	1	43	?Bronze Age
F69	79	gully	pot	Pottery prehistoric thick sherds LV	FL/QZ UN	(S-M2 L1)	G	LV		R	2	51	
F70	19	?pit	pot	Pottery prehistoric	FL	(S-M2)	A			R	1	4	
F70	19	?pit	pot	Pottery prehistoric	FL	(S-M2)	A			OXR	2	3	
F70	19	?pit	pot	Pottery prehistoric bowl with in-turned rim, simple slightly flattened rim, fabric has some sand also	FL	(S-M2 L1)	B	Rim, bowl			1	28	?Late Bronze Age

F70	19	?pit	pot	Pottery prehistoric jar rim, everted, angular, narrow flattened top	FL	(S-M2 L1)	B	Rim, bowl		R	1	10		?Late Bronze Age
F70	19	?pit	pot	Pottery prehistoric red grog	FL GR	(S-M1) (M2)	D			R	1	11	*	
F70	81	?pit	pot	Pottery prehistoric	FL	(S-M2 L1)	B			OX R/B	3	22		
F70	81	?pit	pot	Pottery prehistoric	FL GR BO	(S-M1) (S-M1)	D		W	R	1	15	*	
F70	81	?pit	pot	Pottery prehistoric	FL GR BO	(S-M1) (S-M1)	D		S	R	1	9		
F70	81	?pit	pot	Pottery prehistoric common pale-orange grog, some QZ or flint and small stones	GR SA		M	Base, LV			1	16	*	
F70	81	?pit	pot	Pottery prehistoric decorated with two horizontal, spaced grooves	FL	(S-L1)	C	decorated		R	1	6		
F70	81	?pit	pot	Pottery prehistoric edge of base, 2 sherds, common large sand /stone fragment inclusions	FL UN	(S-L1)	G	Base		OPXB	2	15	*	
F70	81	?pit	pot	Pottery prehistoric Fl with various quantities of grog	FL GR	(S-M1) (S1-M2)	D			R	8	71		
F70	81	?pit	pot	Pottery prehistoric Fl with various quantities of grog	FL GR	(S-M2 L1) (S-M1)	D			OXR	1	23	*	
F70	81	?pit	pot	Pottery prehistoric miscellaneous small sherds/ fragments	FL (GR)	(S-M2)	D?				14	33	(*)	
F70	81	?pit	pot	Pottery prehistoric	FL GR	(S-M2 L1) (S-M1)	D				2	16		
F70	81	?pit	pot	Pottery prehistoric	FL SA	(S-M2) (S-M2)	H	Base, LV			2	24	*	
L2 (F5/F6)	21	layer	pot	Pottery prehistoric	FL	(S-M2 L1)	B			R	4	28		
L2 (F5/F6)	21	layer	pot	Pottery prehistoric	FL SA	(M-L1) (S-M3)	H			OXR	1	9		Iron Age
L2 (F5/F6)	21	layer	pot	Pottery prehistoric some internal burnt residue	FL	(S-M2 L1)	B			OXR	1	3		

Appendix 3: Fired clay

ctxt no	finds no	Find type	Finds description	Fabric Incs	form	surf	col	no	Wt/g	abr
F5	4	F Clay	Fired clay sandy buff-orange-red fabrics, moderately well fired although some abrasion to surfaces, includes structural daub : surface piece with part of sub-square, moulded perforation surviving at one edge and angled, shallow wattle impressions on rear (broken) face; also two other pieces with edges - one a rounded corner edge				B-r	7	160	*
F5	6	F Clay	Fired clay almost complete small, slightly irregular, square brick , buff fabric with some small-medium stones (60 x 60 x 40-35 mm)		Clay brick	*	b	1	214	
F5	6	F Clay	Fired clay piece with slightly surviving surface, surface with some snad/grit			*	b	1	47	*
F5 (Sx 1)	4	F Clay	Fired clay (7@ 160 g) sandy buff-orange-red fabrics, moderately well fired although some abrasion to surfaces, includes surface piece with part of sub-square, moulded perforation surviving at one edge and angled, shallow wattle impressions on rear (broken) face; also two other pieces with edges - one a rounded corner edge					17	160	
F5 (Sx 1)	6	F Clay	Fired clay (2@ 302 g) 1 - red sandy fabric (1@ 56 g), original surface on one slightly rounded face, curvature suggests a diameter of ~ 80 mm; 2 - buff, hard fabric with several small stone inclusions (1@ 246 g) rectangular block (60 x 60 x 40 mm), appears complete, possibly a small slab or clay brick					2	302	
F6 (Sx 2)	20	F Clay	Fired clay small irregular cube of soft-fired, red clay (similar to a Roman tile <i>tessera</i>), upper and lower edge may be original suggestin it comes from a tile or flat brick form			*	r	1	18	(*)
F6 (Sx 2)	20	F Clay	Fired clay partly rounded lumps			*	b	2	17	*
F6 (Sx 2)	20	F Clay	Fired clay rounded lump				r	1	2	*
F6 (Sx 2)	20	F Clay	Fired clay one flat surface, fragment of another joining at an angle, part of an object or thick-walled vessel			*	r	1	70	
F6 (Sx 3)	27	pot	Fired clay	FS			red	1	1	*
F12	42	F Clay	Fired clay Small, irregular, partly rounded piece				OX r-b	1	18	*
F13	23	F Clay	Fired clay? Silty fabric, buff-brown					1	3	*
F16 (Sx 1)	24	F Clay	Fired clay irregular, partly rounded lumps				OX	7	16	
F17	25	F Clay	Frag s from the edge of a fired clay disk? fine sand, oxidised (red), rounded edge, possibly quite small (2 sherds..join)	SA	Clay ?disc fragment			2	4	
F17	25	F Clay	Fired clay Small irregular, lump				POX	3	7	*
F28	29	F Clay	Fired clay irregular, partly rounded lumps				OX	19	647	

ctxt no	finds no	Find type	Findings description	Fabric incs	form	surf	col	no	Wt/g	abr
F31 (Sp2)	31	F clay	Fired clay structural daub: thick piece with slightly concave surface and wattle void parallel to it			*	ox	1	176	
F31	32	F Clay	Fired clay Structural daub: piece with two right angle surfaces, on either, abraded, rounded piece			*	OX b	2	92	
F31	32	F Clay	Fired clay Small piece			?	OX b	1	10	*
F31 (Sp 4)	32	F Clay	Fired clay Small irregular, lump, abraded				POX	1	25	*
F31 Sp 4	32	F Clay	Fired clay Small piece with vegetable-temper or impressions in surface			*	POX	1	21	
F31 Sp 3	32	?F Clay	Fired clay? Small irregular, lumps			*	OX b	3	65	*
F31 Sp 4	32	?F Clay	Fired clay? Small irregular, lump, poss natural					1	17	
F31 Sp 5	32	?F Clay	Fired clay? Irregular piece			?	OX b	1	19	
F31 Sp 4	34	F Clay	Fired clay almost complete (one piece with small joining fragments) small, slightly irregular, square brick , with surface of one one edge broken away, dark silty fabric (black surfaces dark grey-brown fabric) with fine-medium sand (58 x 58 x 20 mm)		Clay brick		R	1	145	
F31 Sp 5	38	F Clay	Fired clay Small irregular, lump, abraded				PR	1	9	*
F31 Sp 5	38	F Clay	Fired clay rounded corner piece, possibly from a brick slab or bar			*	OX	1	23	
F31 Sp 5	38	?F Clay	Fired clay? Small irregular, lump, poss natural					1	22	
F32 (Sx 3)	52	F Clay	Fired clay Small irregular, abraded piece				OX r	1	18	*
F33	41	F Clay	Fired clay Small irregular, pieces				OX r-b	2	25	*
F33	89	?F Clay	Fired clay(?) flat surface flake piece, fine silty fabric with sparse sand, heavily scored surface with one rounded edge(?), several small voids				OXR	1	20	
F37	46	F Clay	Fired clay Small irregular, piece/flake				OX-r	1	2	*
F50	56	F Clay	Fired clay Small irregular, pieces/fragments				OX-r	9	22	*
F50	68	F Clay	Fired clay abraded, fine sand, oxidised					1	2	*
F63	72	F Clay	Fired clay poss object: moderately hard fired pieces with burnt out vegetable fragments in surface			*	OX b	2	34	
F63	72	F Clay	Fired clay irregular, partly rounded lump					1	17	*
F63 (Sx 2)	72	F Clay	Fired clay fine sand, oxidised, grey core, right-angle corner of a brick or bar					1	10	
F66 (Sx 1)	76	F Clay	Fired clay object: part of an object with rounded body and end (3 fitting pieces), pale red fabric with common pale clay inclusions			*	OX	3	260	*
F66 (Sx 2)	77	F Clay	Fired clay Small pieces				OX b	2	5	
F69 (Sx 2)	80	F Clay	Fired clay Small pieces				POX	1	3	*
F70	19	?natural	Fired clay? Small irregular, lump, probably natural					1	18	
F70	83	F Clay	Fired clay object?: two right angle surfaces, possibly part of a clay bar? Some veg-temper and probably grog			*	OX b	1	85	

Appendix 4: Worked flint

cixt no	finds no	Find type	cortex %	soft/ hard hammer	retouch
F5	6	flake	15	soft	retouch/usewear
F6	7	flake	50	hard	
F8	8	flake	0	hard	
F8 Sx 1	58	flake	5	hard	
F8 Sx 2	50	flake	60	hard	
			0	hard	
F9	57	flake-retouched	35	?hard	Abrupt retouch on prox edge, semi-abrupt retouch on laterals and distal. Possible point?
F27	36	flake	85	hard	
F32 Sx 3	52	flake	10	hard	
F36	45	flake	0	hard	?retouch/usewear
F50 Sx 2	66	flake	75	hard	
F63 Sx 2	72	flake-retouched	5	hard	abrupt-notch
F64 Sx 1	73	?flake	10	?	
F64 Sx 2	74	flake	35	hard	
F70	19	flake	0	either	
F70	81	flake	15	either	
		flake	25	soft	
		flake	0	hard	
F70	82	flake	30	hard	
		flake	90	hard	
		flake	0	?hard	
F70	83	flake	0	hard	

Appendix 5: Heat-altered (burnt) stone

ctxt no.	finds no	Find type	Find description	no	Wt/g
F1	1	B stone	Burnt stone Flint (2@ 10 g)	2	10
F2	2	B stone	Burnt stone Flint (3@ 24 g) discoloured by heat	3	24
F4	3	B stone	Burnt stone Flint (2@ 27 g), part of a small stone cobble and one other fragment	2	27
F4	22	B Flint	Burnt flint crazed, burnt, broken from a rounded stone/ small cobble	1	26
F4	22	B Flint	Burnt flint discoloured, slightly crazed	1	52
F5	5	B stone	Burnt stone Flint (1@ 47 g)	1	47
F5 (Sx 1)	4	B stone	Burnt stone Flint (1@ 28 g) part of a burnt, small rounded stone	1	28
F5 (Sx 2)	28	B Flint	Burnt flint crazed, burnt	1	68
F6 (Sx 3)	27	B Flint	Burnt flint discoloured, crazed, burnt	2	31
F8 (Sx 1)	8	B stone	Burnt stone Flint (1@ 20 g)	1	20
F8	62	B Flint	Burnt flint crazed, burnt, some broken from a small cobble(s)	6	209
F8 (Sx 4)	75	B Flint	Burnt flint discoloured, crazed, burnt	1	45
F12 (Sx 4)	51	B Flint	Burnt flint discoloured or crazed, burnt	2	43
F13	23	B Flint	Burnt flint crazed, burnt	1	27
F16	24	B Flint	Burnt flint crazed, burnt	9	304
F28	29	B Flint	Burnt flint crazed, burnt	7	105
F28	29	B Flint	Burnt flint discoloured, crazed, burnt	9	363
F30	31	B Flint	Burnt flint crazed, burnt	5	119
F31	32	B Flint	Burnt flint crazed, burnt	2	116
F31	38	B Flint	Burnt flint crazed, burnt	1	25
F31 (Spit 2)	32	B Flint	Burnt flint crazed, burnt	1	45
F31 (Spit 3)	32	B Flint	Burnt flint crazed, burnt, broken from a small cobble(s)	5	245
F32	11	B Flint	Burnt flint crazed, burnt	2	70
F32	35	B Flint	Burnt flint crazed, burnt	1	49
F50 (Sx 2)	66	B Flint	Burnt flint crazed, burnt	1	35
F50 (Sx 2)	68	B Flint	Burnt flint crazed, burnt	1	49
F63	64	B Flint	Burnt flint crazed, burnt	1	145
F64	74	B Flint	Burnt flint crazed, burnt, broken from a small cobble	1	40
F68	78	B Flint	Burnt flint some burnt, other heated/dicoloured but not calcified	7	288
F70	81	B Flint	Burnt flint crazed, burnt	2	59
F31	32	B stone	Burnt sandstone/quartz	1	23
F68	78	B stone	Burnt sandstone/quartz some burnt, other heated/dicoloured but not calcified	1	15
F68	78	B stone	Burnt sandstone/quartz part of one cobble (join)	2	151

Appendix 6: Stone

ctxt no.	finds no	Find type	Find description	Fabric incs	col	no	Wt/g	abr
F5 (Sx 2)	28	natural	Possibly natural, possibly pieces of septaria			7	59	
F6 (Sx 2)	20	natural	Natural broken sandy concretion?			1	3	
F6 (Sx 2)	20	natural	Natural broken sandy septaria pieces			1	33	
F6 (Sx 2)	20	natural	Probably natural, possibly pieces of septaria			6	134	
F6 (Sx 3)	27	pot	Fired clay	FS	red	1	1	*
F8 (Sx 2)	50	natural	Natural sandy concretion?			1	2	
F13	23	natural	Stone Septaria fragment			1	4	*
F30	31	natural	Possibly natural, possibly pieces of septaria			5	53	
F31 (Spit 1)	32	natural	Natural broken sandy concretion, possibly septaria fragments			6	22	
F31 (Spit 2)	32	natural	Possibly natural, possibly pieces of septaria			2	41	
F31 (Spit 3)	32	natural	Possibly natural, possibly pieces of septaria			1	25	
F31 (Spit 4)	32	natural	Possibly natural, possibly pieces of septaria			1	6	
F31 (Spit 4)	32	natural	Probably natural, possibly pieces of septaria			2	33	
F32	35	natural	Possibly natural, possibly pieces of septaria			3	30	
F32	35	natural	Possibly natural, possibly pieces of septaria			2	25	
F50 (Sx 2)	67	stone (natural)	Stone about half of a large naturally rounded limestone cobble, ancient break, probably a naturally occurring erratic			1	1,357	
F54	60	natural	Natural broken orange fine sandy pieces, possibly septaria fragments			4	14	
F58 (Sx 4)	65	natural	Natural broken orange fine sandy pieces, possibly septaria fragments			2	3	
F70	19	?natural	Fired clay? small irregular, lump, probably natural			1	18	

Appendix 7: Animal bone

ctxt no	finds no	ctxt qty	wt (g)	species	qty	prox f	dist f	bone	comments
F5	4	1	1.5	med/lrg mammal	1			axial	
F5	6	1	4.0	lrg mammal	1			appendicular	
		1	3.0	lrg mammal	1			appendicular	burnt
		1	3.0	sheep	1			metacarpal	burnt
F6	7	1	1.0	med/lrg mammal	1			axial	
F11	86	1	3.0	med/lrg mammal	1	f		appendicular	burnt
F50 (Sx 2)	68	2	60.0	cattle	1			radius	
		1	19.0	cattle	1			metapodial	
		8	28.0	cattle	1			appendicular	
F63 (Sx 2)	72	1	19.0	cattle	1			molar	
		1	9.0	cattle	1			molar	
		1	5.0	mammal	1			unidentified	
F70	82	4	9.0	cattle	1			molar	
		5	6.0	med mammal	1			mandible	
		1	9.0	med mammal	1			radius	
		6	3.0	med/lrg mammal	2			appendicular	
		1	14.0	med mammal	1			appendicular	
F70	83	1	38.0	cattle	1			molar	
		1	29.0	cattle	1			molar	
		1	20.0	cattle	1			molar	
		1	44.0	cattle	1			radius	
		9	58.0	med/lrg mammal	3			appendicular	
		12	11.0	med/lrg mammal	5			axial	inc mandible

Appendix 8: Charred plant macrofossils and other remains

Key:

x = 1-10 specimens,

xx = 11-50 specimens

xxx = 51-100 specimens

xxxx = 100+ specimens

b = burnt

cf = compare

fg = fragment

pmc = possible modern contaminant

ss = sub-sample

M/H = medium/high

Sample no	1	2	3	4
Context no	30	33	84	85
Feature no	F28	F31	F2	F11
Feature type	Pit	Pit	Pit	Pit/ph
Date	LIA	MIA	MIA	MIA
Cereals				
Avena sp. (grains)		xcf		
(awn fragments)		xx		
Triticum sp. (grains)		x	xcf	
(glume bases)		xxx		
(spikelet bases)		xx		
(rachis internodes)		x		
T. spelta L. (glume bases)		xxx	x	
Cereal indet. (grains)		x		xcffg
Herbs				
Atriplex sp.		x		x
Bromus sp.		xx		
Chenopodium album L.		xx		
Fabaceae indet.		x	x	
Fallopia convolvulus (L.)A.Love		x		
Galium aparine L.				x
Small Poaceae indet.		x		
Large Poaceae indet.			x	
Rumex sp.		x		
Tripleurospermum inodorum (L.)Schultz-Bip		x		
Wetland plants				
Carex sp.			x	
Montia fontana L.		x		
Tree/shrub macrofossils				
Crataegus monogyna Jacq.			x	
Other plant macrofossils				
Charcoal <2mm	xxxx	xx	xx	xxxx
Charcoal >2mm	xxxx	xx	xx	xxxx
Charcoal >5mm	xxxx	x	x	xx
Charcoal >10mm	xxxx		x	
Charred root/stem	x	x	xx	
Indet.seeds			x	
Other remains				
Black porous 'cokey' material	x	x	x	xx
Black tarry material	x	x	x	x
Bone	xb	x xb	x xb	xxb
Burnt/fired clay	xx	x		
Burnt stone	xx	x		
Small coal fragments	x	x	x	xx
Small mammal/amphibian bones	xpmc			
Vitreous material		x	x	x
Sample volume (litres)	28ss	25ss	10ss	18ss
Volume of flot (litres)	4	0.3	<0.1	0.2
% flot sorted	<10%	50%	100%	50%

ARCHAEOLOGICAL EVALUATION

Shoebury Garrison

**Defended prehistoric settlement at Shoeburyness, known as
the Danish Camp.**

COUNTY MONUMENT NO 29444

October 2012

ENGLISH HERITAGE

Site: Defended prehistoric settlement at Shoeburyness, known as the Danish Camp, Southend on Sea

English Heritage Inspector: Deborah Priddy (01223 582720)

This archaeological brief is only valid for six months. After this period English Heritage should be contacted to assess if archaeological requirements have changed. Any written scheme of investigation resulting from this brief shall only be considered for the same period.

The contractor is strongly advised to visit the site before completing their written scheme of investigation, as there may be implications for accurately costing the project.

1. Introduction

This brief is issued by the East of England Regional Office of English Heritage for the archaeological evaluation within the scheduled monument. The brief sets out the requirements for an archaeological evaluation to be undertaken in connection with the development of proposals for the construction of two new houses. This is housed within the surviving monastic claustral range. The implementation of the evaluation will be subject to obtaining scheduled monument consent. The work will be specifically designed to assess and characterise archaeological deposits within the area of the proposed footprint. The specification for the evaluation should include a short desk top assessment of the evaluation site in relation to the wider scheduled monument. Archaeological work should consist of the evaluation by means of a trial trenching.

2. Requirement for Work

The archaeological evaluation is required to .

- Establish the presence/absence of archaeological deposits and their character and importance, so as to establish the likely archaeological impact of a new museum building, and to inform the acceptability and scope for mitigation via foundation design, and archaeological recording.

3. Methodology

3.1 The evaluation shall be carried out by a team of professional archaeologists . details of the name, qualifications and experience of the site director and all other project personnel (including specialist staff0 shall be supplied as part of the WSI.

3.2 Details of the evaluation strategy shall be provided within the written scheme of investigation, as appropriate, and the area evaluated should be sufficient to predict the archaeological impact of the proposed development.

3.3 The contractor shall provide details of the site surveying policy in the written scheme of investigation. The site grid shall be tied into the National Grid.

3.4 The contractor shall ensure detailed study of all amins services locations and avoid damage to these.

3.5 all current health and safety guidelines must be followed on site.

3.6 Details of the site planning policy shall be given in the written scheme of investigation. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections at 1:10, unless circumstances indicate that other scales would be more appropriate.

3.7 Details of the photographic record shall be included in the WSI. This shall include both general and feature specific photographs. A photographic register detailing as a minimum feature number, location, and direction of shot shall accompany the photographic record.

3.8 The contractor shall provide details of the sampling strategies for retrieving artefacts, biological remains (for palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses). Advice on the appropriateness of the proposed strategies will be sought from Helen Chappel, English Heritage Regional Adviser in Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy and Wiltshire 1994) is available from the EH regional office.

3.9 Should human remains be discovered the coroner will be informed and a licence from the Home Office sought immediately; both the client and the monitoring officer will also be informed. All burials are to be fully excavated.

3.10 The IFA's *Standards and Guidance for Archaeological watching briefs and excavations* should be used for additional guidance in the production of the written scheme of investigation, the content of the report, and the general execution of the project.

4. Finds

4.1 All finds, where appropriate, shall be washed.

4.2 All pottery shall be marked with the site code and context number.

4.3 The written scheme of investigation shall include an agreed list of specialist consultants, who will be required to conserve and/or report on finds, and advise or report on other aspects of the investigation.

4.4 The requirements for conservation and storage shall be stated within the written scheme of investigation.

5. Results

5.1 The report shall be submitted within a length of time (but not exceeding 6 months) from the end of the fieldwork, to be agreed between the developer and archaeological contractor, with a copy supplied to the Southend on Sea Sites and Monuments Record. . Where possible a single hard copy with a full digital copy shall be supplied. Two hard copies shall be provided to English Heritage East of England Office. .

5.2 This report must contain:

- The aims and methods adopted in the course of the evaluation.
- A section/s drawing showing depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale.
- Methodology and detailed results including a suitable conclusion and discussion. Where appropriate the discussion should be completed in consultation with the Eastern Counties Research Agenda and Strategy (Brown and Glazebrook 2000)
- A concise non-technical summary of the project results.

5.3 Publication of the results, at least to a summary level shall appear in the year following the excavation.

6. Archive Deposition

6.1 The requirements for archive storage shall be agreed with the appropriate museum.

6.2 If the finds are to remain with the landowner a full copy of the archive shall be housed with the appropriate museum.

6.3 The full archive shall be deposited with the appropriate museum within 2 month of the completion of the report.

6.4 A summary of the contents of the archive shall be supplied to EH at the time of deposition to the museum.

7. Monitoring

7.1 English Heritage will be responsible for monitoring progress and standards throughout the project.

7.2 Notification of the start of work shall be given to the EH in line with the notice conditions on the scheduled monument consent.

7.3 Any variations of the written scheme of investigation shall be agreed with EH prior to them being carried out.

8. Contractors Written Scheme of Investigation

8.1 In accordance with Standards and Guidance produced by the IFA this design brief should not be considered sufficient to enable the total execution of the project. A WSI is required therefore in order to provide *the basis for a measurable standard* and for submission by the developer to the English Heritage for approval.

8.2 Archaeological contractors shall forward a WSI to English Heritage for validation prior to fieldwork commencing.

8.3 The involvement of EH shall be acknowledged in any report or publication generated by this project.

Email Debbie.priddy@english-heritage.org.uk

Written Scheme of Investigation
for an archaeological evaluation

at

the former car park site,
Mess Road, Shoebury Garrison,
Shoeburyness, Essex

November 2012

commissioned by
Garrison Developments LLP



COLCHESTER ARCHAEOLOGICAL TRUST,
ROMAN CIRCUS HOUSE,
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1 Introduction

- 1.1 This is a Written Scheme of Investigation (WSI) for an archaeological evaluation at the former car park site, Mess Road, Shoebury Garrison, Shoeburyness, Southend-on Sea, Essex, in advance of a proposed residential redevelopment.
- 1.2 The site (NGR: TQ 9388 8460) is situated on the corner of Mess Road and Chapel Road in Shoeburyness (Fig 1). The site lies within the former Shoebury Garrison.
- 1.3 The proposed redevelopment includes the construction of two houses, each with a large detached garage, and with shared vehicular access from Mess Road.
- 1.4 The implementation of the evaluation will be subject to obtaining scheduled monument consent.
- 1.5 This WSI has been written by the Colchester Archaeological Trust (CAT). It sets out proposals for an archaeological evaluation, and for post-excavation work including the production of a report, an archive and (if necessary) publication texts. It follows a brief produced by the East of England Regional Office of English Heritage (EH 2012).
- 1.6 Any variations in this WSI will be agreed beforehand with the East of England Regional Office of English Heritage (EH).

2 Archaeological background

- 2.1 The archaeological potential of the site was assessed in a CAT desk-based assessment (CAT 2012). This is included in this WSI as Appendix 1. The more significant and relevant archaeological remains and documentary sources are summarised below:
- 2.2 The site lies in the Scheduled southern half of the archaeological site known as the 'Danish Camp', but which is actually a Middle Iron Age hillfort (County monument no 29444). Sections of the ramparts remain and recent excavations have shown the position of round houses and other structures.
- 2.3 There is evidence of later occupation in Roman times and the possibility of a Roman building east of Mess Road.
- 2.4 The site had originally been thought to have been a 9th-century Danish encampment, but no evidence of this has been found.
- 2.5 In the mid-19th century the site was incorporated within Shoebury Garrison.

3 Aims

The aims of the evaluation are to record the depth and extent of any archaeological remains uncovered in the trial trenches, and to assess the date and significance of these remains in terms of the wider area of the proposed redevelopment.

4 General Methodology

- 4.1 All works will be undertaken by professional archaeologists employed by CAT. The field officer(s) will have a level of experience appropriate to the work. Notification of the supervisor/project manager's name for the project shall be provided to EH one week in advance of commencement of work.
- 4.2 All the latest Health and Safety guidelines will be followed on site. CAT has a standard health and safety policy, which will be adhered to (CAT 2007).
- 4.3 For the purposes of the deposition of the archive, a museum accession code will be obtained through Southend Museum. The code used will be quoted in any reports arising from the work.
- 4.4 The relevant document of the Institute of Field Archaeologists (IFA) will be followed, i.e. *Standard and guidance for an archaeological evaluation* (IfA 2008a), including its 'code of conduct'. English Heritage's *Management of Research Projects in the Historic Environment* (MoRPHE 2006) will be adhered to throughout the course of the project. Other guidelines followed are those published in EAA 3, EAA 8, EAA 14 and EAA 24.
- 4.5 At the start of work an OASIS online record will be initiated and key fields completed on Details, Location and Creators forms.

5 Recording methodology

- 5.1 Two evaluation trenches will be dug within the footprints of the proposed houses (Fig 2). The trenches will each measure approximately 8 m long by 1.65 m wide.
- 5.2 They will be dug using a mechanical excavator with a toothless ditching bucket under the supervision of the CAT archaeologist. Any modern concrete surfaces will first be broken out.
- 5.3 Machine-stripping will continue down to the uppermost surviving levels of archaeological significance. Where no archaeologically significant deposits are exposed, machine excavation will continue until the natural subsoil is reached. The surface of the subsoil will then be scrapped clean and checked for archaeological features.
- 5.4 CAT will obtain information about existing service locations from the client. If no such information is available, a CAT scan will be undertaken prior to and during excavation. In general, cable and service positions will not be excavated, but will be left as upstanding baulks.
- 5.5 All archaeological deposits or features will be excavated by hand. Fast excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.
- 5.6 Individual records of excavated contexts, such as layers or features, as well as finds, will be entered on CAT pro-forma record sheets. Registers will be compiled of small finds and soil samples.
- 5.7 All features and layers or other significant deposits will be planned, and their profiles or sections recorded. The normal scale will be site plans at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be appropriate.
- 5.8 The photographic record will consist of general site shots, and shots of all archaeological features and deposits taken on a digital camera. The photographic record shall be accompanied by a register detailing, as a minimum, feature number, location and direction of shot.
- 5.9 The environmental sampling policy is as follows. CAT has an arrangement with Val Fryer whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course, with any processing and reporting done by VF. If advice is required Helen Chappell at English Heritage will be consulted.
- 5.10 A metal detector will be used to check spoil heaps and any finds recovered. This will not normally be done on demonstrably modern strata.
- 5.11 The limits of the trenches, the features and levels will be tied into Ordnance Datum using a Total Station.

6 Finds

- 6.1 The policy with regard to human remains depends on how old they are. If it is clear, from their position, context, depth, or other factors that the remains are ancient, then the normal procedure is to apply to the Home Office (Department of Constitutional Affairs) for a licence to remove them. In that case, conditions laid down by the licence will be followed. If it seems that the remains are not ancient, then the coroner, the client and the monitoring officer will be informed, and any advice and/or instruction from the coroner will be followed. **Note:** As the relevant legislation is currently in a state of flux, advice will be sought from EH monitoring officer and DCA on best practice.
- 6.2 All finds of archaeological relevance will be retained. Policies for later disposal of any finds will be agreed with EH and Southend Museum.
- 6.3 All finds, where appropriate, will be washed.
- 6.4 A policy of marking for pottery and other finds will be agreed with Southend Museum. Marking will include the site code and context number.
- 6.5 Provisions for conservation and storage shall be agreed with Southend Museum in accordance with their requirements.
- 6.6 All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

- 6.7 Finds work will be to accepted professional standards as presented in *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (IFA 2008b).
- 6.8 A list of specialists available for consultation is given at the end of this WSI.

7 Results

- 7.1 Notification will be given to EH when the fieldwork has been completed.
- 7.2 The full report, including full reports on artefacts, will be submitted to the EH within a length of time not exceeding 3 months from the end of fieldwork. A digital copy of the report will be supplied to the Essex Historic Environment Record (EHER) as a PDF.
- 7.3 This report will include:
- The aims and methods adopted in the course of the archaeological work.
 - Location plan of all monitored areas. At least two corners of the area shall be given 10 figure grid references.
 - A section drawing showing the depth of deposits including present ground-level related to Ordnance Datum.
 - The recording methodology and results with a suitable conclusion and discussion.
 - All specialist reports and assessments.
 - A concise non-technical summary of the project results.
- 7.4 An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment* (MoRPHE 2006).
- 7.5 A digital EHER summary sheet shall also be completed within four weeks and supplied to the Historic Environment officer. This shall include a plan showing the position of the monitored areas.
- 7.6 All parts of the OASIS online form must be completed for submission to the EH. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).
- 7.7 If, after discussion with EH, the results are considered worthy of publication, a report (at least at a summary level) will be submitted to *Essex Archaeology and History*.

8 Archive deposition

- 8.1 The full archive will be deposited at Southend Museum within 6 months of completion of the final report on the project. The guidance in *Archaeological archives: a guide to best practice in creation, compilation, transfer and curation* (IfA 2007) will be followed.
- 8.2 Finds (and other retained materials) will be bagged and boxed in the manner recommended by Southend Museum. The storage of the archive will accord with Southend Museum guidelines.
- 8.3 Plans will be presented on hanging strips to fit Southend Museum storage systems.
- 8.4 The photographic archive is to be presented as follows: original digital data on disk and hard copies of digital photo logs.
- 8.5 A summary of the contents of the archive shall be supplied to EH at the time of deposition at the museum.
- 8.6 If the finds are to remain with the landowner a full copy of the archive shall be housed with the appropriate museum.

9 Monitoring

- 9.1 EH will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.
- 9.2 Notification of the start of work will be given to EH, if possible, one week in advance of its commencement.
- 9.3 Any variations of the WSI shall be agreed with EH in writing prior to them being carried out.
- 9.4 EH will be notified when the fieldwork is complete.
- 9.5 The involvement of EH shall be acknowledged in any report or publication generated by this project.

10 References

- | | | |
|--------|-------|---|
| CAT | 2007 | <i>Health and Safety Policy</i> |
| CAT | 2012 | An assessment of the archaeological implications of a proposed development at Shoeburyness, January 2012, unpublished CAT archive report, by H Brooks |
| EAA 3 | 1997 | <i>Research and archaeology: a framework for the Eastern Counties 1. Resource assessment</i> , ed by J Glazebrook |
| EAA 8 | 2000 | <i>Research and archaeology: a framework for the Eastern Counties 2. Research agenda and strategy</i> , ed by N Brown and J Glazebrook |
| EAA 14 | 2003 | <i>Standards for field archaeology in the East of England</i> , ed by D Gurney, ALGAO East |
| EAA 24 | 2011 | <i>Research and archaeology revisited: a revised framework for the Eastern Counties . Research agenda and strategy</i> , ed by M Medlycott |
| EH | 2012 | <i>Archaeological evaluation at Shoebury Garrison</i> , EH brief, October 2012, by Debbie Priddy |
| IFA | 2007 | <i>Archaeological archives: a guide to best practice in creation, compilation, transfer and curation</i> |
| IFA | 2008a | <i>Standard and guidance for an archaeological evaluation</i> |
| IFA | 2008b | <i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i> |
| MoRPHE | 2006 | <i>Management of Research Projects in the Historic Environment</i> , English Heritage |

Donald Shimmin 7/11/12

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List of team members

Site supervision and recording

Adam Wightman

Assistants

To be decided

Finds consultants

Stephen Benfield (CAT): Prehistoric and Roman pottery
Francesca Boghi (NAU): Human bone
Joanna Bird (Guildford): Samian ware
Ernest Black (Colchester): Roman brick/tile
Howard Brooks (CAT): Medieval and Post-Medieval pottery
Dr Hilary Cool (Nottingham): Roman glass
Nina Crummy (Colchester): Small finds
Julie Curl (NAU): Animal bone
John Davis (Norwich Museum): Roman coins
Val Fryer (UEA/Loddon): Environmental
Dr Helen Chappell (English Heritage): Regional Science Advisor
Hazel Martingell (Braintree): Lithics
Valerie Rigby (British Museum): LIA ceramics
Dr Paul Sealey (Colchester Museums): Roman amphoras
Patricia Ryan (Chelmsford): Medieval and later brick and tile
Sue Tyler (ECC): Saxon Pottery.
Helen Walker (ECC): Saxon, Medieval and post-medieval pottery.
Adam Wightman (CAT): small animal bone and lithic assemblages

Graphics

E Holloway, G Adams, C Lister

Report writing

A Wightman

Senior Site Staff

Adam Wightman BSc, MA

After graduating from the University of Sheffield in 2004 with a BSc Hons in Archaeology and Prehistory, Adam worked for CAT during the Roman Circus excavations at Colchester Garrison in 2004/5. He then went on to work for Cambridge Archaeological Unit before completing a Masters in the Archaeology of Human Origins at the University of Southampton where he focused on lithic and animal bone analysis. Since returning to CAT in 2006 Adam has carried out evaluations and excavations at the Great Dunmow Salesrooms, 143-147 High Street Maldon, Firstsite Newsite in Colchester town centre, and at 21 St Peters Street adjacent to Colchester's Roman wall. He now completes assessments and full reports on small assemblages of animal bone and lithics for CAT.

Finds Specialists

Stephen Benfield BA, Cert Archaeol (Oxon) (CAT) Prehistoric and Roman pottery

Steve's first involvement with Colchester archaeology was in 1985, working on a Manpower Services Commission sponsored project to assist in processing the enormous collection of Roman pottery from excavations in the town. He graduated from Reading University with a degree in archaeology and subsequently studied for his post-graduate Certificate in Archaeology at Oxford. Returning to CAT, he has since worked on many CAT projects at various supervisory and directorial positions, including the major projects at Stanway Iron Age burial site and Gosbecks Roman temple/theatre complex. Stephen

has also, through much hands-on experience, built up a considerable working knowledge of LIA and Roman ceramics. He now completes ceramic assessments and full reports for CAT, drawing on the unrivalled catalogues provided by the standard Colchester works *Camulodunum* (Hawkes & Hull 1947), *Roman Colchester* (Hull 1958) and now *CAR 10*, and by examining the fabric series held at CAT headquarters.

Francesca Boghi MSc (Norfolk Archaeological Unit) Human bone

Francesca has been the Norfolk Archaeological Unit's human bone specialist since 1998. Her previous experience includes work for the Calvin Wells laboratory at the University of Bradford, where she undertook the analysis of 79 skeletons from the medieval cemetery of Pennell Street, Lincoln, Lincolnshire and of a group of Romano-British cremations from Kempston, Bedfordshire. Since joining Norfolk Archaeological Unit she has analysed the medieval assemblage from the parish church of Brettenham, Norfolk (89 skeletons), the human remains from Norwich Whitefriars (thirty-three skeletons from the Carmelite Friary and thirty-seven from the Baptist Chapel of Friary Yard), the skeletal remains from a medieval well in Norwich and numerous other smaller assemblages of inhumations and cremated human remains from the county. In addition she contributes to local education programmes by providing short sessions on skeletal analysis and interpretation. Her professional qualification is an MSc from the University of Sheffield and Bradford in Osteology, Palaeopathology and Funerary Archaeology. She is a member of the British Association of Biological Anthropologists and Osteoarchaeologists (BABAO).

Joanna Bird FSA (Guildford) Samian

Joanna is one of the country's top samian specialists. Among her large corpus of work is a contribution to the publication *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester 1971-1986*.

Ernest Black (Colchester) Roman brick/tile

Ernest is a Colchester schoolteacher with a wide interest in archaeology and the classical world. In this sense, he is following in the footsteps of A.F. Hall, and Mike Corbishley who were also local schoolmasters. He has developed his specialism by large scale hands-on experience with Roman brick and tile, and has contributed to the *Arch J*, *CAR 6: Excavations at Culver Street, the Gilbert School, and other sites in Colchester 1971-1985*.

Howard Brooks BA, MIFA (CAT) Medieval and Post-Medieval pottery

Howard's involvement in Essex archaeology goes back to 1970 when he dug at Sheepen, Colchester with Rosalind Dunnett (now Niblett). He studied archaeology at the University of Wales, and graduated in 1975. He worked for Colchester Archaeological Trust between 1976 and 1981, and again in 1985, where he was involved at various levels of responsibility (up to Co-Director) in the excavation of deeply stratified urban remains in Roman Colchester and suburbs (Colchester Archaeological Report 3 [1994]). Between 1992 and 1995 he worked for Essex County Archaeology Section, first in directing the fieldwalking and excavation project at Stansted Airport (East Anglian Archaeology 107, 2004), and then in Development Control. Howard then left ECC to set up and run HBAS, the county's smallest contracting team, in which capacity he carried out over twenty field projects and wrote a dozen consultancy reports. He rejoined CAT in 1997. He regularly contributes to Essex Archaeology & History, and teaches University evening classes on archaeology.

Dr Hilary Cool FSA MIFA (Nottingham) Roman glass

Yet another graduate of the University of Wales, Hilary is now a freelance glass and finds specialist, and has written many reports on glass from Colchester sites, including contributions to *Colchester Archaeological Report 6: Excavations at Culver Street, the Gilbert School, and other sites in Colchester 1971-85*, and *Colchester Archaeological Report 9: Excavations on Roman and later cemeteries, churches and monastic sites in Colchester 1971-88 (1993)*. Among her major works is the internationally selling *Colchester Archaeological Report 8: Roman vessel glass from excavations in Colchester 1971-85*.

Nina Crummy (Colchester) Small finds

Nina first worked in the early 1970s as finds assistant on the major urban excavations in Colchester for the Colchester Excavation Committee (later the Trust). Over the next twenty years she built up an unrivalled working knowledge of small finds of all types. She has collaborated in most of the *Colchester Archaeological Reports*, and was principal author of the best-selling *Colchester Archaeological Reports 2* (Roman small finds), *4 (The coins from excavations in Colchester 1971-9)* and *5 (The post-Roman small finds from excavations in Colchester 1971-85)*. She recently worked for the Museum of London, and was instrumental in the recent transfer of and the massive improvement in accessibility to archaeological archives in London. She now works freelance on small finds reports for CAT, HBAS, and other bodies including Winchester Excavation Committee.

Julie Curl (Norfolk) Animal Bone

Julie has over 16 years of experience in archaeology and in particular finds for the Norfolk Archaeological Unit and Norfolk Museums Service. After many years working as both a bone specialist and in graphics for the NAU Julie has recently established her own freelance company Sylvanus in which she specialises in Archaeological and Natural History illustrations as well as being a freelance animal and human bone specialist. She has been producing faunal remains reports for many years and produces assessments and analysis reports for clients across the East Anglian region. She has her own extensive bone reference collection built up over many years. Her particular interests in faunal remains are animal husbandry and pathologies. She has also worked as a conservator, particularly on Pleistocene vertebrates and a wide variety of archaeology and natural history projects at the Norwich Castle Museum. Julie is also an extra-mural lecturer with the University of East Anglia, teaching Animal bones in Archaeology.

Dr John A Davies (Norwich Museum) Roman coins

John has, for some years, written reports on Roman coins from Colchester excavations. He specializes in barbarous radiates, and has contributed to *British Numismatic Journal* on that topic. Among his other publications is a contribution to *Colchester Archaeological Report 4: The coins from excavations in Colchester 1971-9*, and *CAR 9: Excavations on Roman and later cemeteries, churches and monastic sites in Colchester 1971-88 (1993)*.

Val Fryer (Norfolk) Environmental Archaeologist BA, MIFA

Val has fifteen years experience in environmental archaeology, working for English Heritage, County Units and independent archaeological bodies across the United Kingdom and Southern Ireland. She has published reports in East Anglian Archaeology (including occasional papers), Proceedings of the Prehistoric Society, Medieval Archaeology and Norfolk Archaeology. Specialist work for various police authorities across England and Northern Ireland. Val is a Member of the Institute of Field Archaeologists with special accreditation for environmental archaeology and she is also a Member of the Association of Environmental Archaeologists.

Dr Helen Chappell (English Heritage) Regional Science Advisor

Dr Helen Chappell is English Heritage's Regional Science Advisor (RSA) for the East of England, providing regionally-based advice on all aspects of archaeological science: geophysics, scientific dating, hydrology, geoarchaeology, analysis of biological remains and technological residues, artifact analysis and conservation. RSAs give advice to a range of organizations and also produce good practice standards and guidelines. RSAs are all actively involved in research, and applying new methodologies to site investigation and management.

Hazel Martingell BA, FAAIS (Braintree): Lithics

Hazel has for many years worked as a lithics illustrator and specialist, undertaking work for The British Museum, ECC Field Archaeology Unit and for London and Cambridge Universities, to name but a few. Since 1987 she has been self-employed and has excavated at a Middle Stone Age site at Gorham's Cave, Gibraltar as well as writing and illustrating worked flint reports for CAT, ECC FAU, and the British Museum. Her impressive publication record includes reports on sites from around the globe. Closer to home she has published work in *Essex History and Archaeology*, The *East Anglian Archaeology* Monograph series, *Antiquity* and *British Museum Occasional Papers*. Hazel is a fellow of the Association of Archaeological Illustrators and Surveyors and a founder member of the Lithics Study Group, London.

Valerie Rigby (Hertfordshire) LIA ceramics

Formerly working for the British Museum, Val is one of the country's leading authorities on later prehistoric ceramics in general, and traded wares in particular. She has published widely. Her major work include *Baldock: the excavation of a Roman and pre-Roman settlement, 1968-72 (Britannia Monograph Series 7, with Ian Stead)*. On a more local level, she has contributed to the magisterial *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester 1971-88*, and to Ros Niblett's *Sheepen: an early Roman industrial site at Camulodunum (CBA Research Report 57, 1985)*.

Patricia Ryan (Chelmsford) Medieval and later brick and tile

Pat has for many years been examining excavated collections of brick and tile from Essex sites, and contributing reports which are usually consigned to the gloomier parts of archive reports, or as footnotes in published texts. Her regular contributions to *Essex Archaeology & History*, therefore, under-represent the devoted study which Pat has put in over the years. Nobody knows more about local brick and tile, except for David Andrews, with whom she collaborated on significant sections of *Crissing Temple: A Templar and Hospitaller Manor in Essex (1993)*.

Dr Paul Sealey (Colchester Museum) Amphoras

Paul has worked at Colchester Museum since the late 1970s. His PhD specialism was Roman amphoras, a topic on which he writes specialist reports. His main areas of interest are prehistory and the Roman period, and he has developed a familiarity with those periods and their ceramics. He has published widely. His major works include *Amphoras from the 1970 excavations at Colchester Sheepen* (BAR 142, 1985), contributions to Ros Niblett's *Sheepen: an early Roman industrial site at Camulodunum* (CBA Res Rep 57, 1985). He regularly contributes to *Essex Archaeology & History*.

Sue Tyler (ECC) Saxon Pottery

Sue is the County authority on Saxon material, especially pottery. She has had several spells working with Essex County Archaeology Section, interrupted by a late-1980s spell in Hertfordshire. She has written reports on Saxon material for many Essex Projects, and contributes regularly to *Essex Archaeology & History*, including the Anglo-Saxon cemetery at Prittlewell (*Essex Archaeol Hist* 19 (1988)).

Helen Walker BSc (ECC) Medieval and post-medieval pottery.

Helen is Essex County Council Field Archaeology Group's medieval and post-medieval pottery specialist. Before joining ECC in 1985, she worked on finds in Carmarthen, and for Hampshire CC on projects in Winchester. Since 1985, she has contributed reports on ceramics to many other projects in the county. A regular contributor to *Essex Archaeology & History*, her principal publications include reports on the Rayleigh kiln dump, and George Street and Church Street, Harwich (*Essex Archaeology & History*, 21 [1990]), and North Shoebury (*EAA* 75).

Appendix 1

An assessment of the archaeological implications of a proposed development at Shoeburyness.



Prepared for Garrison Developments LLP

by Colchester Archaeological Trust



January 2012

The following site summary is given on the Southend Borough Council website http://www.southend.gov.uk/info/841/historic_sites_and_monuments/96/overview_of_southends_history/5.

The "Danish Camp", Shoebury Garrison

Sections of ancient ramparts remain at the former Shoebury Garrison. They form part of the defences of a prehistoric settlement on the edge of the shore. Recent excavations have indicated that the main period of settlement was in the middle Iron Age (300 to 100 BC) and have shown the position of round houses and other structures. There is also evidence of later occupation in Roman times and the possibility of a Roman building east of Ness Road. The site had originally been thought to have been a 9th century Danish encampment, but no evidence of this has been found.

(Further detail of the site as given in the English Heritage National Heritage List for England is given in Appendix 2).

Recent fieldwork

There has been considerable archaeological activity in and around the Danish Camp site over the past fifteen years. Four projects are summarised here to give an idea of what exists on the site.

1) 1998 Gifford Archaeology evaluation

An extensive programme of geophysical survey, test pitting and evaluation work was undertaken over a large area including the Danish Camp area and Gunners Park to the east. Two project areas closest to the PDS are Areas A, B, and E. Area A was over the road and N of the Gunnery Drill Shed, and was centred approximately 130m N of the PDS. Area B was approximately 220 m x 240m and included the PDS in its NE corner. Area E was centred 180m W of the PDS.

The nine trenches cut into Area A showed considerable disturbance caused by the construction of the Garrison in the 1850s. The two trenches cut into Area E showed (in one trench) an old field boundary ditch of indeterminate age, and (in the other), a considerable depth of modern disturbance between 500mm and 800mm deep, the result of ground disturbance caused by the Garrison construction of the 1850s.

The Gifford 1999 report states that the Area B evaluation would be done in due course, and would be published separately. There was no Area B report in the HER, nor is it available on the Archaeology Data Service (ADS) website of unpublished fieldwork reports. In the limited time available for this assessment, the Area B report could not be located. However, it is noted from the NHLE that the 4% trenching evaluation of this area revealed a dense pattern of well preserved Iron Age features, including evidence of four round houses (identifiable from characteristic drainage gullies), two post-built structures, several boundary ditches and numerous post holes and pits. In summary, the evaluation demonstrated the survival of significant archaeological remains within the 'Danish Camp' ramparts and beyond.

2) 1998 ?Gifford Archaeology sections across ramparts

A report in the Southend HER gives a publication draft for a 1998 project which involved the excavation of two trenches across the surviving ramparts of the hillfort.

A recut of the original ditch contained Neolithic 'Grooved ware' pottery. Rather than taking this as evidence of an earlier defended site than was envisaged (i.e., Neolithic rather than Iron Age), the report prefers to see this pottery as residual material in a later ditch, and possibly to be associated with a Bronze Age palisade slot which may represent the earliest date at which this site was fortified. This early stage, whatever form it took, was replaced by a revetted bank of the Iron Age. Given that the other excavations of the interior show that the Middle Iron Age (circa 300 BC – 100 BC) was

the principal period of occupation, that date is preferred for the laying out of the ramparts and ditch system. There is evidence of Roman and Anglo-Saxon reuse of the Camp.

3) 2003 Pre Construct Archaeology excavations in North Camp

An excavation of three areas in North Camp is described in *A phased summary and assessment of the excavations at North Camp, Shoeburyness, Essex*, by Roddy Mattinson of Pre-Construct Archaeology (2005). Major excavation over 3 areas (A-C) revealed multiperiod archaeological activity from the Middle Bronze Age to the Roman period, but centred on the Middle Iron Age, when at least four round-houses occupied the site. This area is now covered in new build (i.e., Hale Way).

4) Current Essex County Field Archaeology Unit test pits and watching brief on Officers Mess site (attached Fig 1)

We are obliged to ECC FAU for the following summary of current work on this site, which is immediately south of the PDS (see attached Fig 1).

An archaeological test-pit evaluation was carried out along the north-western side of the derelict Officers Mess building, in 2010, as a precursor to structural engineering and environmental ground investigations (Letch 2010). This established the immediate proximity of the building to have been disturbed by 19th and 20th century activity associated with it. However, some areas of undisturbed and un-truncated natural deposits were identified and three residual sherds of medieval pottery were retrieved. Test-pit 1, closest to the former car park site [i.e., the PDS], contained the least disturbance and depth of modern overburden.

The Officers Mess site is currently undergoing conversion and extension to residential use and archaeological monitoring of major construction groundworks is being undertaken as this development progresses. The contractors' excavation of all but one of the extension footprints, a substantial storm drain and some of the plot boundary walls and drainage runs have so far been observed. This has demonstrated variable but widespread 19th and 20th century disturbance along the northwest side of the Officers Mess. In areas of low disturbance, natural subsoil deposits are encountered at a depth of c.0.4m. To date, only the remains of a single ditch of archaeological significance, buried c.1.1m below the present ground surface, has been identified.

3 The current condition of the site

The PDS has a grassy area on its eastern side but is mostly covered in concrete slab. Maps of the 1980s show buildings on the site and over its western edge.



Illustration 1: view of site looking SE across Chapel Road. Brick building with pitched roof centre is the electricity substation.



Illustration 2: view of site looking N. Building in background is the Gunnery Drill Shed on the N side of Chapel Road.

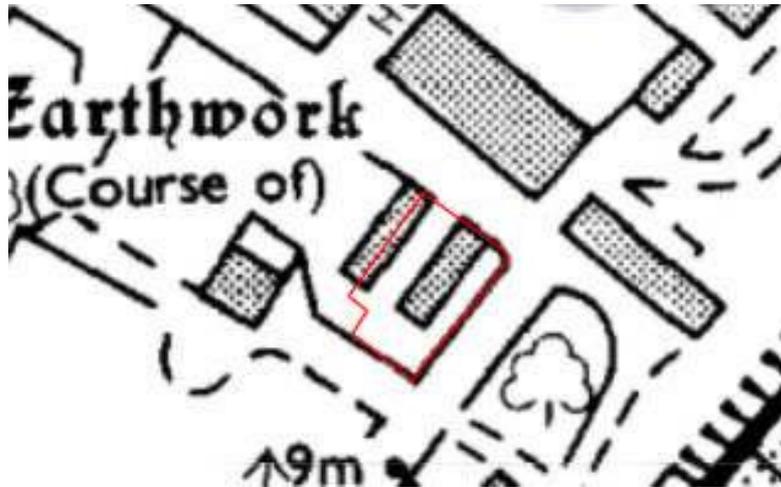


Illustration 3: Extract from OS 1989 1:2500 showing buildings (now demolished) on PDS (red outline). © Crown copyright. All rights reserved. Licence number 100039294

The existing concrete slab over the western side of the PDS does not readily relate to the outline of the buildings shown in the 1980s (above), so the slab is more likely to be a new construction after the demolition of those buildings, rather than their floor slab. Further, an electricity substation has been built on the E edge of the PDS.

The conclusion is that although the surrounding land has a pleasant 'parkland' appearance, the PDS cannot be regarded as untouched ground. There have been several phases of activity here, and any archaeological remains will have been disturbed.

The unknown factor is whether there is (under the slab) a blanket of modern 'disturbed ground', and how thick it is. In this respect, it should be noted that on the adjacent Officers Mess site, this modern disturbance is up to 1.1m thick. If the same is the case on the PDS, then undisturbed archaeological remains may exist below it. However, elsewhere on the Officers Mess site, natural ground is seen at only 0.4m deep. If this were so on the PDS, then previous building on the PDS (including the existing slab) may have disturbed the archaeological horizons.

4 Conclusions and summary

- 4.1 The proposed development site (PDS), at the junction of Mess Road and Chapel Road, Shoeburyness is a vacant lot currently used for visitor parking and storage of building materials. It has an electricity substation on the Mess Road frontage.
- 4.2 The PDS occupies part of the Iron-Age 'hill-fort' (traditionally known as the 'Danish Camp'), which is a Scheduled Ancient Monument (SAM). The northern part of the hillfort (as defined by the course of Brigadier Way and Rampart Street) is already built over.
- 4.3 There have been a number of archaeological evaluations and excavations within the interior of the hill-fort. Three points emerge:

- 1) there are extensive archaeological remains within the hillfort.
 - 2) the main period of activity appears to be the Middle Iron Age, as evidenced by Iron Age round-houses (although there is also evidence of activity from the Neolithic to the medieval period).
 - 3) the building of the Garrison in the 1850s has contributed to the slighting of most of the circuit of the ramparts, and to the truncation of the archaeological horizons, which are now covered by a blanket of soil up to 1.1m deep (which can be described as 'modern disturbance').
- 4.4 There is pleasant green space to the east and south, but the PDS itself is covered in a concrete slab, and a map of the 1980s shows a building (or buildings) on the site. The PDS cannot therefore be regarded as untouched ground.
 - 4.5 However, given the importance of the site and the survival of archaeological remains elsewhere within the Scheduled hillfort, the PDS has undoubted archaeological potential. There is a possibility that archaeological remains survive below the concrete slab now covering most of the PDS.
 - 4.6 Archaeological evaluation / excavation will be required prior to development (its extent and methodology to be determined). No work, including archaeology, may be carried out here without Scheduled Monument Consent.
 - 4.7 However, given the amount of disturbance the site has already seen, and the low level of survival of archaeological remains on the adjacent Officers Mess site, the SAM status of the site should not, in itself, be a barrier to sensitive redevelopment.

5 References

Gifford	1998	<i>Shoeburyness 'Danish Camp' excavation 1998</i> . Draft report in HER.
Gifford	1999	<i>Report on an archaeological evaluation at the Old Ranges, Shoeburyness, Essex. Volume 1, April 1999</i> . Report number B1644A.3R (1998 fieldwork for Defence Estates Organisation).
Mattinson, R	2005	<i>A phased summary and assessment of the excavation at North Camp, Shoebury, Essex</i> . Pre-Construct Archaeology. Site Code EORG 01.

Appendix 2: NHLE details for hillfort

Name:

Defended prehistoric settlement at Shoeburyness, known as the Danish Camp

List entry Number: 1017206

Summary of Monument

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

The defended prehistoric settlement at Shoeburyness, although low-lying, belongs to the class of prehistoric monuments known as 'slight univallate hillforts'. These are fortified enclosures, ranging in size between 1ha and 10ha and surrounded by a single boundary of substantial, but not especially imposing earthworks.

.....Slight univallate hillforts are rare with around 150 examples recorded nationally, with concentrations in Devon (where they are the major class of hillfort) and in Wessex, Sussex, the Cotswolds and the Chilterns (where they occur alongside other classes). Although particularly rare in south eastern England, the slight univallate hillfort, sometimes (but not invariably) located on elevated ground, is the predominant form of defended settlement. In view of their rarity and their importance in understanding the development of Bronze Age and Iron Age communities, all slight univallate hillforts which survive comparatively well and have the potential for the recovery of further archaeological remains are considered to be of national importance.

The defended prehistoric settlement at Shoeburyness has been denuded by the development of the 19th century military complex, although the southern half of the enclosure has been shown to survive extremely well and to retain significant and valuable archaeological information. The original appearance of the rampart is reflected in the two standing sections, and the associated length of the perimeter ditch will remain preserved beneath layers of accumulated and dumped soil. Numerous buried features related to periods of occupation survive in the interior, and these (together with the earlier fills of the surrounding ditch) contain artefactual evidence illustrating the date of the hillfort's construction as well as the duration and character of its use. In particular, the recent investigations have revealed a range of artefacts and environmental evidence which illustrate human presence in the Middle and Late Bronze Age and a variety of domestic activities in the Middle Iron Age, including an assemblage of pottery vessels which demonstrate extensive trading links with southern central England. Environmental evidence has also shown something of the appearance and utilisation of the landscape in which the monument was set, further indications of which will remain sealed within deposits in the enclosure and on the original ground surface buried beneath the surviving sections of bank. Evidence of later use, or reuse, of the enclosure in the Late Iron Age and Roman periods is of particular interest for the study of the impact of the Roman invasion and subsequent provincial government on the native population; the brief reoccupation of the

site in the Anglo-Saxon period, although currently unsupported by archaeological evidence, also remains a possibility.

Details

The monument includes the buried and visible remains of the known extent of a defended prehistoric settlement located on the north shore of the Thames Estuary, on the eastern side of Shoebury Ness, a broad promontory at the eastern end of the Southend Flat.

The settlement, which many 19th century antiquarians associated with historical references to a Danish Camp, lay in a rural setting until 1849 when Shoebury Ness was adopted as a range finding station by the Board of Ordnance and later developed into a complex of barracks and weapon ranges. The visible remains of the Iron Age settlement were probably reduced at this time leaving only two sections of the perimeter bank, or rampart, standing..... The surviving section of the north west bank, parallel to the shore line and flanking Warrior Square Road, now lies some 150m-200m inland. It measures approximately 80m in length with an average height of 2m and width of 11m. The second upstanding section, part of the southern arm of the enclosure, lies some 150m to the south alongside Beach Road. This bank is similar in width although slightly lower overall, with some evidence of remodelling associated with two mid-19th century magazine buildings and a blast mound situated immediately to the south. The bank is flanked by an external ditch, now largely buried, which was shown by exploratory excavations in 1876 to be 12m wide and nearly 3m deep. More recent trial excavations (1999) have found pottery assemblages dating from the Middle and Late Bronze Age in association with the rampart.

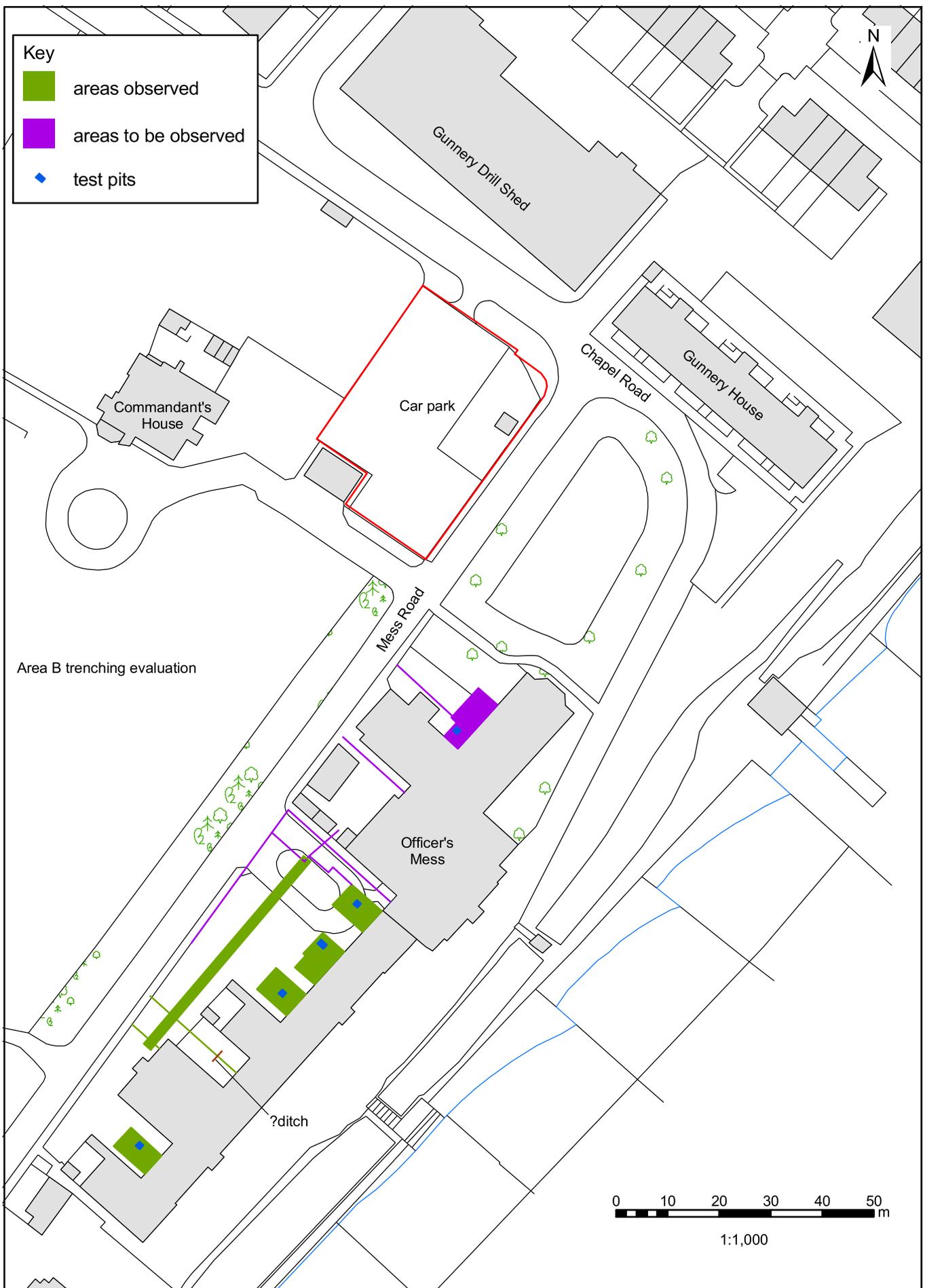
The area enclosed by these surviving banks, was investigated in 1998 as part of a wider archaeological evaluation of the Shoeburyness Barracks. Trial trenches were excavated to sample approximately 4% of this area and revealed a dense pattern of well preserved Iron Age features, including evidence of four round houses (identifiable from characteristic drainage gullies), two post-built structures, boundary ditches and numerous post holes and pits. Fragments from ...pottery vessels date the main phase of occupation to the Middle Iron Age (400-200 BC). Within this period, evidence was found to indicate a variety of domestic activities, including spinning, weaving, salt manufacture, cereal processing and butchery. Indications were also found that the interior of the defended settlement was subdivided, with some areas set apart for storage, particular dwellings or communal activities.

Slight evidence of earlier prehistoric activity, dating from both the Mesolithic period and the late Neolithic/Early Bronze Age, was found within the area of the settlement... Evidence was also found of some form of occupation within the ramparts in the Late Iron Age, and of continued use after the Roman invasion. Material related to the demolition of a substantial Romanised structure, [with] wattle and daub walls and a tiled roof, was found amidst later medieval debris in the south-western corner of the settlement. Since no traces of such a structure were revealed by the other trenches or by geophysical survey, it is thought that this building may have stood to the east, seaward of Mess Road, where fragments of Roman pottery and Roman coins were discovered in the 1930s. Trial trenches in the northern part of the settlement (as defined by the putative line of the ramparts to the north of Chapel Road) found considerable modern disturbance and no

evidence of surviving Iron Age features. This northern area is therefore not included in the scheduling.

The former interpretation of the monument as a 'Danish Camp' is based on entries in the Anglo-Saxon Chronicles. These record the expulsion of Danish forces from their base at Benfleet in AD 893 and their subsequent regrouping, under the Viking leader *Haesten*, at a fort near Shoebury. Although the prehistoric earthwork might have been adopted for this purpose, the evidence for this period currently consists of only two fragments of Anglo-Saxon pottery (found during the 1998 investigation), and cannot be said to support this theory.

A number of features are excluded from the scheduling: these are all buildings, including the Grade II Listed Commandant's House and the Officer's Mess, the Mess range, the houses and garages on Chapel Road, the electricity sub-station at the junction of Mess Road and Chapel Road and the air raid shelters located to east, south and west of the recreation ground, all modern laid surfaces of roads, driveways, paths and tennis courts, and all bollards, railings, fences and boundary walls; the ground beneath all these features is, however, included.



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Fig.1. Location of areas observed and to be observed

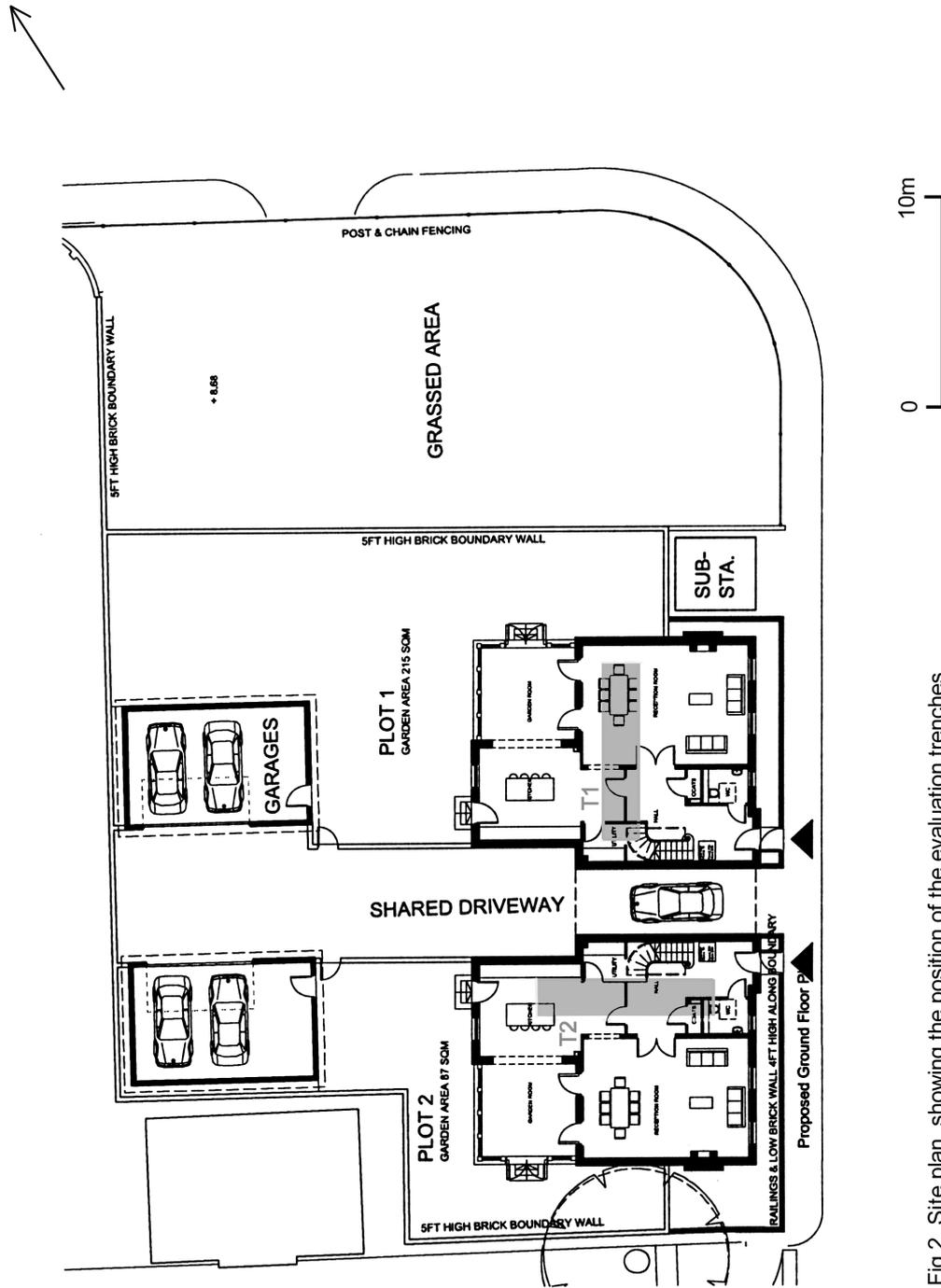


Fig 2 Site plan, showing the position of the evaluation trenches.