

Flixton Quarry, Cartwrights Covert Extension

South Elmham St. Mary alias Homersfield, Suffolk

(Assessment 5; Volume I; Text, Figures and Plates)

Client:

Cemex UK Materials Ltd

Date:

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Archaeological Post-Excavation Assessment Report
(Vol. I; Text, Figures and Plates)
SACIC Report No. 2017/101
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**Flixton Quarry,
Cartwrights Covert Extension
(SEY 035)**

Post-Excavation Assessment Report

SACIC Report No. 2017/101

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Any opinions expressed in this report about the need for further archaeological work are those of Suffolk Archaeology CIC. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk Archaeology CIC cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

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Summary

The archaeological evaluation and subsequent excavation of the c.4.5 hectares site known as Cartwrights Covert, that formed an extension to the already extensive gravel quarrying operations at Flixton Park Quarry, recorded significant archaeological deposits dating to a number of chronological periods.

The principle deposits identified were as follows:

Neolithic and Bronze Age: low level of scattered pits and residual finds (ceramic and worked flint). A single unurned cremation is likely to belong within this timeframe and will be subjected to radiocarbon dating as part of the analysis programme.

Iron Age and Roman: the evidence suggested that activity was continuous throughout the Iron Age and most of the Roman period. While the number of features securely attributed to the earlier/middle Iron Age were limited, residual artefactual evidence, particularly pottery, was recovered from many of the later features. Later in the Iron Age and throughout the Iron Age – Roman transitional period, increased levels of activity was represented by a range of structures and feature types. Structural evidence was essentially restricted to a large number of four-post and occasional six-post structures, presumably granaries, along with a larger eight-post structure and a few shallow slots that may have represented ground beams. No roundhouses, were positively identified, although two small continuous ring-ditches and two penannular ring-ditches were present. Other features included ditches/gullies and pits, some large. There was also evidence for iron smelting and smithing and antler working. The artefactual evidence included some high status small finds of types that hint of a military influence during the 1st century. The level of activity appeared to decline during the Roman period with relatively limited material evidence for 3rd century activity and almost nothing from the 4th century.

Medieval: a significant concentration of medieval features were identified towards the southern edge of the site with a large rectangular feature associated with post-holes; this was interpreted as a building or structure terraced into the natural north facing slope. The structure was bounded by a series of substantial ditches. The artefactual evidence, particularly the pottery, suggested that the activity spanned most of the medieval period with no Anglo-Saxon material present. Given the location of the discrete concentration of medieval material close to the edge of the site, after partial excavation/evaluation, the remainder of the structure was preserved *in situ*.

Post-medieval: effectively limited to earlier field boundaries and geological test-pits.

1. Introduction

1.1 Site location

The c.4.5 hectares site known as Cartwrights Covert is located in the parish of South Elmham St. Mary alias Homersfield on the south side of the Waveney Valley, centred on TM 2970 8590 (Fig. 1).

1.2 The scope of the project

This archaeological assessment covers the archaeological deposits revealed in the entire Cartwrights Covert Extension area excavated under the Historic Environment Record (HER) code SEY 035 between 2011 and 2016.

The principal aims of the assessment are as follows:

- Summarise the results of the archaeological fieldwork.
- Quantify the site archive and review the post-excavation work that has already been undertaken.
- Assess the potential of the site archive to answer the original research aims as defined in the SCCAS Brief and the General Project Design.
- Assess the significance of the data-set in relation to the relevant Regional Research Framework (Glazebrook 1997; Brown and Glazebrook 2000) and the revised Research Framework (Medlycott ed. 2011).
- To present recommendations covering any required analysis, publication/dissemination and archiving.
- Define and quantify analysis/publication/archiving tasks in order to calculate resources and costs to complete the project to the level required by the Mineral Planning Authority (MPA).

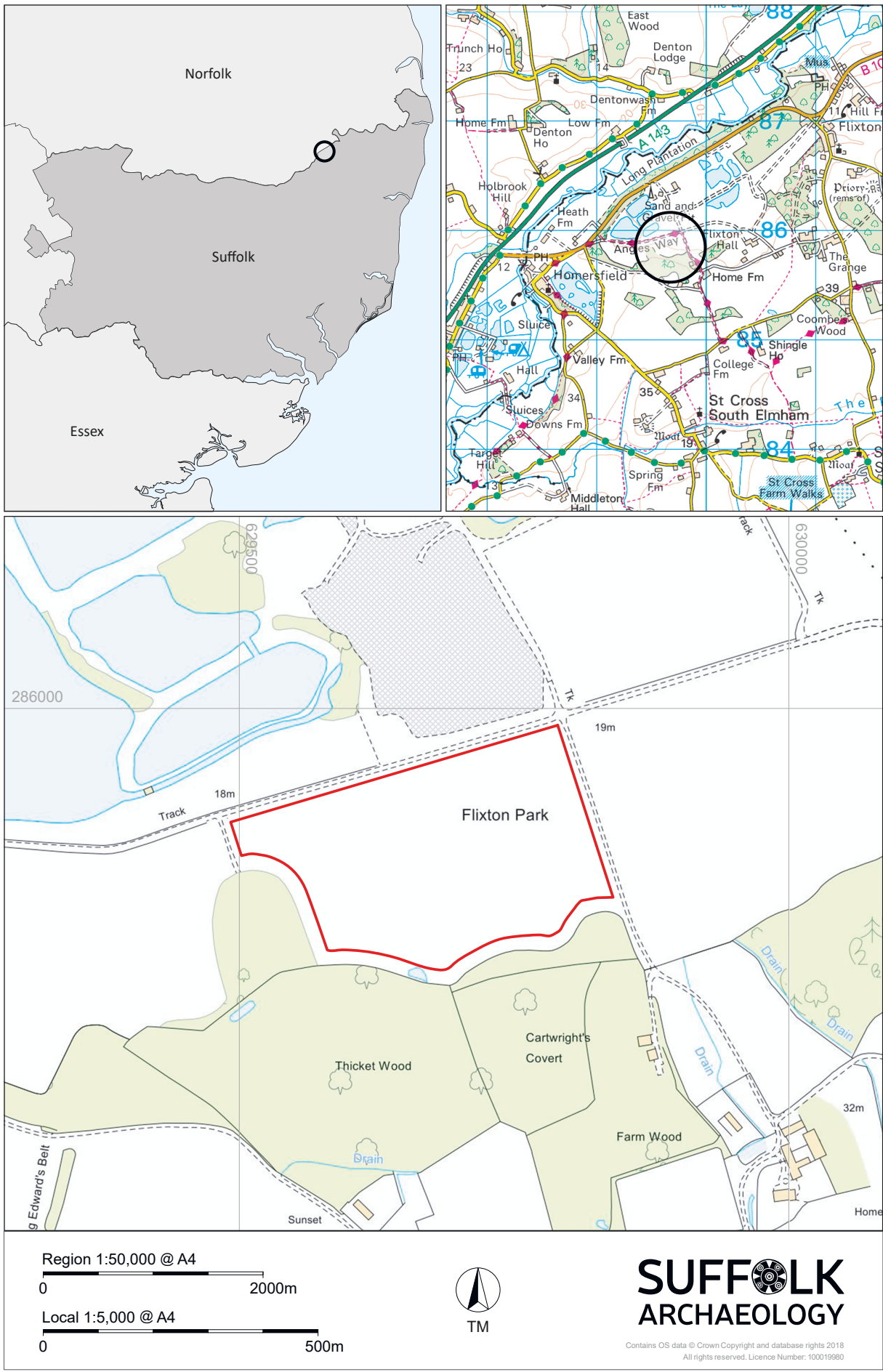


Figure 1. Site location (red)

1.3 Circumstances and dates of fieldwork

The site was designated as Site 17 in the Suffolk Minerals Waste Development Framework (Minerals Specific Site Allocations) of 2009. In 2011, the then Field Projects Team of Suffolk County Council's Archaeological Service (SCCAS/FPT, now SACIC) were commissioned by The Guildhouse Consultancy (on behalf of Cemex (UK) Materials Ltd.) to carry out a programme of archaeological evaluation by mechanically excavated trial-trench over the entire c.4.5 hectares parcel of land. The work was specified in a pre-application Brief prepared by Edward Martin of the then Suffolk County Council Archaeological Service Conservation Team (SCCAS/CT, now SCCAS), the Archaeological Advisors to the Mineral Planning Authority (hereafter MPA), dated 30th September 2011 (Appendix 1). The Evaluation fieldwork was undertaken in October 2011 with the results subsequently presented as SCCAS Report No. 2011/191 (Boulter 2012).

The evaluation identified archaeological deposits of prehistoric, Roman, medieval and post-medieval date throughout the site but clearly concentrated towards its eastern half. Given that the processing of quarrying would be 100% destructive to the archaeology, SCCAS, in their continuing role as Archaeological Advisors to the MPA, recommended an archaeological condition should be placed on the mineral extraction planning application that would require the applicant, Cemex (UK) Materials Ltd, to provide for a programme of archaeological mitigation.

Subsequently, SACIC were commissioned by The Guildhouse Consultancy, on behalf of the applicant, to undertake the programme of archaeological mitigation works to include the preparation of a General Project Design (Boulter 2013), fieldwork and post-excavation. The soil-stripping was initiated in 2013 with the construction of a peripheral haul road and safety bund and continued in phases until its completion in 2016.

2 Geological, topographic and archaeological background

2.1 Geology, topography and recent land use

The 4.5 hectares site occupies a position on the south side of the Waveney Valley, lying between the river flood plain to the north and on the flanks of the higher ground comprising the heavy clays of the Lowestoft Formation to the south. The British Geological Survey describe these deposits as river terrace deposits over chalk (BGS 2016). The site itself slopes markedly from its south-west corner down towards the north-east, falling from c.26m OD down to c.17m OD over a distance of c.300m, with a steeper slope towards the south-west, which levels out towards the north-east. Heavy glaciogenic clay was encountered in the south-west third of the site with the rest of the site a mix of silty, almost clayey sand and gravel.

The depositional environment and date of the gravels are still a source of study and debate. In a recent post-graduate study undertaken at Flixton, the recognised geology included Early Pleistocene marine sediments overlain by Anglian and post-Anglian material including tills, fluvial sediments and outwash deposits (Heirman 2006).

Maps dating back to the mid-18th century suggest that since that time, the area had remained as a series of fields peripheral to the more open parklands surrounding Flixton Hall. Over time, field boundaries were removed until the subject area became part of one large agricultural field. Prior to the initiation of quarrying the field had been cultivated, most recently with maize.

2.2 Archaeology

Prior to the trenched evaluation of 2011, no archaeology was known within the proposed extension area. However, extensive archaeological excavations had previously been carried out in the wider area of the quarry since 1995, formally by SCCAS/FPT who, since their divestment from Suffolk County Council in 2015 have continued to work at the site as SACIC. Significant multi-period archaeology was recorded and it was considered likely that similar deposits could be expected within the new area. A summary of the more significant features and finds made during the protracted excavations at Flixton Park Quarry are presented by period below:

Palaeolithic: handaxes and Levallois flakes from the quarry gravels and overlying clay till. Another handaxe was recovered from an Early Anglo-Saxon Sunken Featured Building (SFB).

Mesolithic: small number of flint tools, mostly unstratified.

Neolithic: Early Neolithic monuments/features included a long barrow, long enclosure and pits.

Late Neolithic monuments/features included a post-hole circle and pits, the latter including significant quantities of Grooved Ware pottery and worked flints in their fills, some of which were considered to represent structured deposition. The post-hole circle was published as part of East Anglian Archaeology Monograph No. 147 (Boulter and Walton Rogers 2012).

Bronze Age: Early Bronze Age features included a number of ring-ditches that would originally have surrounded round barrows which have since been ploughed flat. These monuments are usually linked to funerary activity, although burials were not recorded with every ring-ditch. The most significant of these monuments was associated with a crouched inhumation burial which had accompanying grave goods; a stone wrist bracer, two amber toggles and a funerary beaker with the grave central to a complex multi-phased monument comprising a series of ditches and post-holes (Boulter 2015). Immediately to the west was a second monument, a post-hole circle surrounding a central cremation pit that is assumed to be broadly contemporary but awaits C14 dating. Another of the ring-ditches was published as part of East Anglian Archaeology Monograph No. 147 (Boulter and Walton Rogers 2012). Other Early Bronze Age features included an isolated burial with an associated Beaker pot as a grave good and a significant number of pits and pit groups producing domestic type Beaker pottery.

Late Bronze Age deposits were entirely domestic in character with a series of hut circles with associated four and six post storage structures and pits. These were recorded throughout a c.4 hectares area in the quarry phases excavated as FLN 064, 065, 068, 088 and 090 (Boulter 2006, 2015 and forthcoming).

Iron Age: Earlier Iron Age occupation deposits, mainly represented by pitting and four and six post storage structures, were identified along with a ditched field system tentatively considered to be of later Bronze Age - Iron Age in date before becoming redundant in the Late Iron Age of earlier Roman period. A palisaded circle of later Iron Age or earlier Roman date was published as part of East Anglian Archaeology Monograph No. 147 (Boulter and Walton Rogers 2012).

Roman: An area of Roman occupation included two pottery kilns, two aisled buildings and an enigmatic multi-posted structure, tentatively identified as a large raised granary, with small finds hinting at a possible military presence. A multiple stacked burial (four bodies) exhibited evidence of foul play.

Early Anglo-Saxon: Four areas of Early Anglo-Saxon archaeology have previously been recorded at Flixton: two cemeteries and two areas of settlement. The two cemeteries were published as part of East Anglian Archaeology Monograph No. 147 (Boulter and Walton Rogers 2012). A group of pits in the adjacent Tarmac Quarry (previously Hill Pit and now worked by Cemex) was clearly domestic in character (Boulter 2011), while an extensive area of occupation with Hall-type buildings and Sunken Featured Buildings (SFB's) was recorded at the north end of the overall quarry (Boulter 2006 and forthcoming).

Medieval: deposits of medieval date have rarely been encountered in the main quarry at Flixton, although some of the undated field boundaries almost certainly originated at this time, before becoming redundant when the park associated with Flixton Hall was imposed on the landscape. Other possible medieval features include the line of the original Homersfield to Flixton road, while the recent analysis of a rectilinear enclosure in areas FLN 061 and FLN 068 revealed a medieval rather than the previously supposed Early Anglo-Saxon date (Boulter 2006 and forthcoming). In addition, localised, medieval deposits have been found in a second extension to the quarry (HER SEY 038) comprising a series of ditched enclosures/fields associated with large post-holes buildings, presumably with an agricultural function (Boulter 2014 and ongoing).

Post-medieval: significant deposits relating to Flixton Hall and its surrounding parklands and the agricultural landscape into which it was placed included brick-built

drains running down slope from the hall, a brick-built barn and associated wells, a dew-pond, a possible folly and field boundaries.

World War II training trenches and associated latrine pits were recorded in the School Wood plot clearly showing that the trees were not planted until after that time.

3 Original research aims

The original research aims were set out in the Brief and Specification document prepared by Edward Martin of the then SCCAS/CT and dated 30th September 2011, and were as follows:

RA1: Establish whether any archaeological deposit exists in the area, with particular regard to any which are of sufficient importance to merit preservation *in situ*.

RA2: Identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.

RA3: Evaluate the likely impact of past land uses, and the possible presence of masking colluvial deposits.

RA4: Establish the potential for the survival of environmental evidence.

RA5: Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, timetables and orders of cost.

Following the evaluation, these aims were revised for inclusion in the General Project Design for the excavation (Boulter 2013) (Appendix 2). These have been repeated below:

The overarching aim was to preserve by record all of the archaeological deposits within the quarry working area that would be destroyed during the extraction process. However, the results of the extensive archaeological excavations in the main quarry area to the north-east and the evaluation of the extension area itself allow for more specific period based research aims to be put forward relating directly to the archaeological deposits expected to be encountered during the excavation.

The following Research Aims were prepared with direct reference to East Anglian Archaeology Occasional Papers 3 and 8, Research and Archaeology: A Framework for

the Eastern Counties, 1. Resource assessment (ed. Glazebrook 1997) and 2. Research agenda and strategy (eds. Brown and Glazebrook 2000) and East Anglian Archaeology Occasional Paper 24, Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott ed. 2011).

General (all periods)

The large scale of the quarrying works at Flixton has resulted in the archaeology of a wide area of the landscape to be recorded, not just targeted sites. While not immediately adjoining the previously excavated sites, the new area has the potential to add to this overview and provide useful information regarding the development and use of the landscape over time.

Prehistoric (Neolithic, Bronze Age and Iron Age)

Flixton Quarry has been identified in the revised framework document (ibid., p.11 and p.15) as one of the key Neolithic and Bronze Age projects to be excavated in the intervening years since the publishing of the first framework documents in 1997 and 2000. While only limited evidence was recorded for these periods in the evaluation stage, clearly there is potential for deposits of this date to be present.

Previously at Flixton, the Neolithic deposits have been both monumental and more domestic in character: the former including a long barrow, elongated enclosure and post-hole circle while the latter was represented by pits and pit groups. Given that any features within the new area are likely to be similar in character, the future research topics which potentially have relevance are as follows:

- Improve the understanding of the chronological development of Neolithic pottery (ibid., p.13).
- Address the imbalance between the over-representation of monumental features in the NMP/HER (primarily due to aerial photographs) and the less visible sites (e.g. pit groups) and investigate further the relationship between the two (ibid., p.14).

- Strengthen the palaeoenvironmental sampling strategy for well-sealed Neolithic pits in order to recover macrobotanical evidence (particularly cereals) (ibid., p.14).

Extensive deposits of Bronze Age archaeology have previously been identified at Flixton which, similarly to the Neolithic features, include monuments, principally ring-ditches, and domestic features of both earlier and later Bronze Age date. Future research topics which potentially have relevance are as follows:

- Improve the understanding of regional difference in the chronological development of Bronze Age pottery (ibid., p.20 and p.21).
- Extending the area of study at Flixton has the potential to help explore the relationship between settlement sites and burial (ibid., p.20).

Late Iron Age/Roman

Flixton Quarry has also been identified in the revised framework document as a site where significant deposits of both later Iron Age and Roman date have been excavated in recent years (ibid., p.22 and p.33). During the evaluation, later Iron Age deposits were identified over the eastern two thirds of the new area. The features were similar in character to those previously seen at Flixton and are particularly relevant to studies involving the Iron Age to Roman transition (ibid., p.28 and p.31).

Anglo-Saxon

No deposits of Anglo-Saxon date were identified during the evaluation.

Medieval

A series of medieval ditches and large post-holes were recorded close to the southern edge of the site. Within the confines of the limited evaluation trenches, it was not possible to interpret these features in any meaningful way, although it clearly represented a structure of some significance. During the excavation, the initial research aim will be to define and characterise the medieval deposits in greater detail. At that point, effectively the assessment stage of the project, it will be possible to reconcile the archaeology with the future research topics presented in the revised framework (ibid., pp.70 - 71).

Post-medieval and modern

Recording of the post-medieval and modern features, mainly field boundary ditches, will add to the body of the recorded archaeological evidence regarding the development of Flixton Park.



Figure 2. All features plan

4 Site sequence: results of the fieldwork

4.1 Introduction

A total of 3,322 Observed Phenomena (hereafter OP) numbers were allocated to discrete features, layers, multiple feature structures and their stratigraphic elements (Fig. 2) with a further 220 numbers allocated to small finds.

A provisional chronological phasing of the site is presented as Tables 1 - 7. The period/phase framework has been developed and modified to accommodate all of the archaeological deposits encountered at Flixton. The inclusion of a feature in a particular phase is based on examining all the available strands of evidence including artefactual, stratigraphic and purely spatial: i.e. the juxtaposition of a feature to other more securely dated features in the immediate vicinity or those forming part of a discrete structure. However, many of the finds assemblages were mixed in regard to date and residuality and intrusivity was clearly an issue. On that basis, the phasing should not always be considered as incontrovertible, but does provide an overall spatial representation of the changing pattern of activity and occupation.

4.2 Prehistoric

Neolithic

Features attributed an earlier Neolithic, later Neolithic or indeterminate later Neolithic/earlier Bronze Age date are detailed in Table 1 with their locations shown on Figure 3. The dating of these features was almost entirely based on ceramic finds, often forming part of a small finds assemblage and may not reflect their true date.

Period	Site phase	Date range	Features
Total 6 features	Phase I.c.	Early Neolithic; c.4000 – 3300 BC	Pits: 0620, 0738, 0781, 2761, 2840, 2996 (Total 6)
Total 3 features	Phase I.d.	Late Neolithic; c.2900 – 2100 BC	Pits: 0732, 3097, 3914 (Total 3)
Total 10 features	Phase I.d/e.	Indeterminate Late Neolithic/Early Bronze Age	Pits: 0811, 3108, 3392, 3408, 3410, 3412, 3414, 3434, 3441, 4241 (Total 10)

Table 1. Details of Neolithic and indeterminate later Neolithic and earlier Bronze Age features

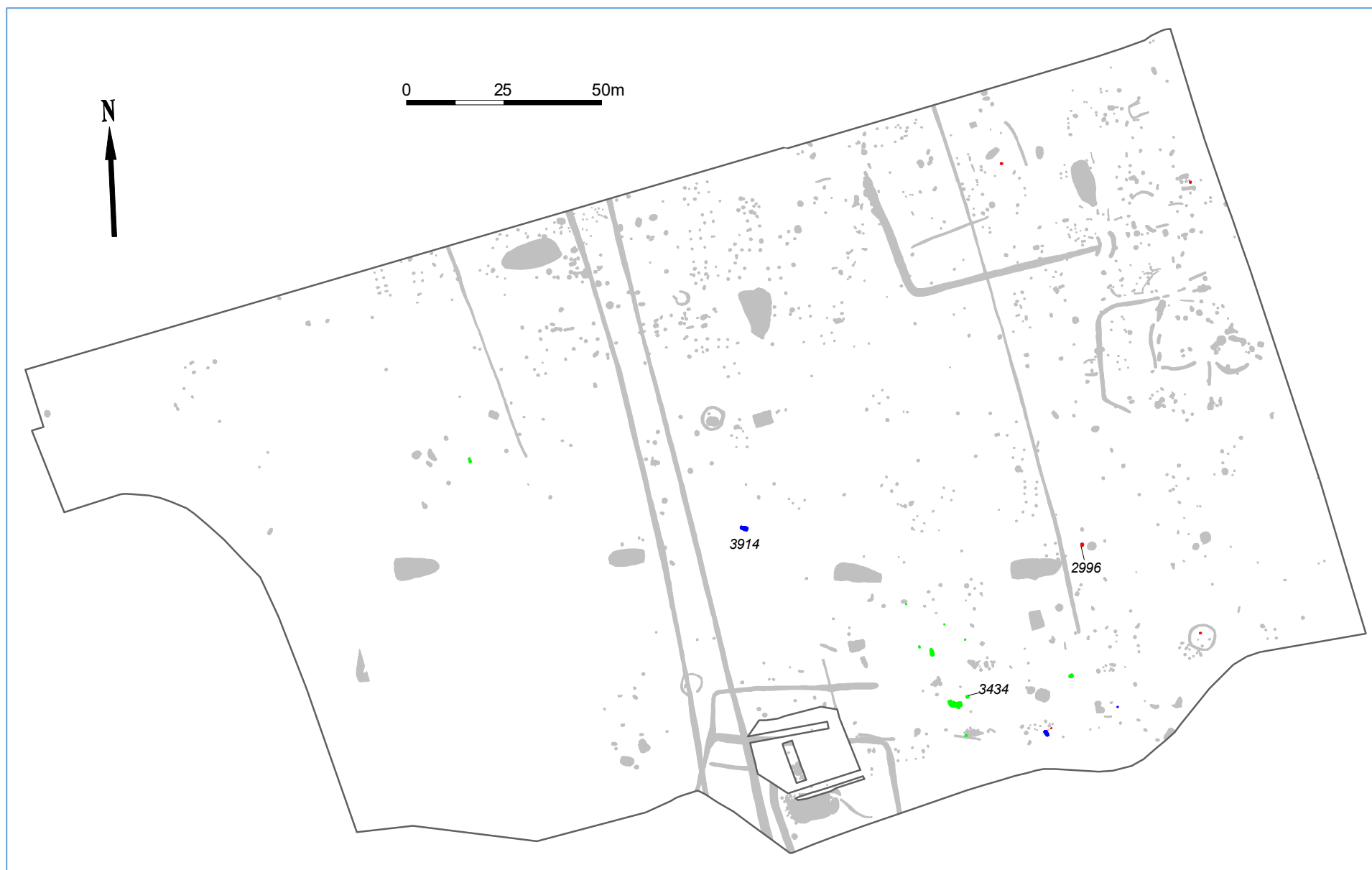


Figure 3. Plan of Early Neolithic (red), Late Neolithic (blue) and indeterminate later Neolithic/earlier Bronze Age features (green)

The Neolithic period was represented by nineteen incised features, although ten of these could potentially be of earlier Bronze Age date. In addition, there were unstratified and residual finds, essentially pottery and worked flints, part of a background scatter of material which attests to at least some level of activity in the vicinity at that time. The features were all described as pits, some of which were not convincing as being deliberately excavated, possibly representing natural hollows and tree-throws. Spatially, they tended to be concentrated towards the southern side of the site, where it begins to slope up gently to the south, although there were occasional isolated features further to the north (Fig. 3). None were recorded on the highest part of the site to the south-west where the sandier soils gave way to heavy glaciogenic clay. Three of the more genuine features assigned to this period are described below. These are also numbered on Figure 3 and presented as Plates 1 – 3.

Early Neolithic pit 2996 was circular, 0.80m in diameter, had a depth of 0.20m with a rounded profile (Plate 1.). The single fill, 2997, comprised dark brownish grey slightly clayey silty sand with occasional small lumps of greyish green clay and red fired clay flecks. Also present were occasional small stones and charcoal flecks. The artefactual assemblage included single, but largish, sherd of Early Neolithic pottery along with seventy-one small pieces of fired clay, a single struck flint and heat-altered flint/stone.

Later Neolithic pit 3914 was an irregular oval in shape, measuring 2.06m by 1.30m with variably sloping sides to an angled base (Plate 2). The stratified fill had three distinct components; an upper fill (3915) comprising mid brownish grey silty sand with very occasional charcoal flecks, a central deposit (3916) of dark brownish grey silty sand with very occasional charcoal flecks and a sterile basal layer (3917) comprising pale greyish brown loose slightly silty sand grading imperceptibly into the naturally occurring subsoil. The artefactual assemblage included three hundred and forty-two sherds of Late Neolithic pottery, the majority from the middle darker fill 3916. Also present were nineteen struck flints, a proportion of which were blade-like flakes.

Indeterminate later Neolithic/earlier Bronze Age pit 3434 was circular, 0.80m in diameter, had a depth of 0.24m with moderately steeply sloping sides to a gently angled base (Plate 3.). The single fill (3435) comprised homogenous mid grey/brown silty sand with occasional small stones, charcoal flecks and fired clay flecks.



Plate 1. Early Neolithic pit 2996; from WSW, 0.50m scale



Plate 2. Late Neolithic pit 3914; from SW, 2.00m scale



Plate 3. Indeterminate Late Neolithic/Early Bronze Age pit 3434; from W, 0.50m scale



Plate 4. Early Bronze Age pits and Iron Age ring gully 0713; from SW, 2.00m scales

The artefactual assemblage included four sherds of indeterminate later Neolithic/earlier Bronze Age pottery along with three struck flints.

Bronze Age

Features attributed various Bronze Age dates are detailed in Table 2 with their locations shown on Figure. 4. Similarly to the Neolithic features, dating was almost entirely based on ceramic finds, although again, this may not reflect the true date of the context.

Period	Site phase	Date range	Features
Total 24 Features	Phase I.e.	Early Bronze Age; c.2100 – 1500 BC	Pits: 0559, 0662, 0706, 0717, 0719, 0723, 0742, 0750, 0770, 0772, 0774, 0783, 0788, 0790, 2370, 3052, 3054, 3056, 3058, 3314, 3316, 3318, 3438, 3515 (Total 24) Spot-find: 3468 (Total 1)
Total 10 features	Phase I.e/f.	Indeterminate earlier Bronze Age/middle Bronze Age	Pits: 3531, 2991, 2993, 3060, 3064, 3066, 3068, 3070, 3072, 3074 (Total 10)
Total 2 features	Phase I.f.	Middle Bronze Age; c.1500 – 1000 BC	Pits: 0799, 2201 (Total 2)
Total 1 feature	Phase I.f/g.	Indeterminate middle Bronze Age/late Bronze Age	Pit: 2827 (Total 1)
Total 9 features	Phase I.g.	Late Bronze Age; c.1000 – 650 BC	Pits: 0656, 2039, 2116, 2385, 2829, 2895, 3895, 4189, 4285 (Total 9)

Table 2. Details of Bronze Age features

A total of forty-six features, all described as pits, were assigned to the Bronze Age (Table 2, Fig. 4), with a clear bias towards the earlier and middle of the period. While more numerous, in many respects, these features were comparable to those of the Neolithic period. Spatially, there were isolated examples and a moderate concentration towards the southern side of the site which included discrete feature clusters; again, none were recorded on the heavy clay to the south-west. Most were small, and some were almost certainly naturally derived.

Of particular note, were a cluster of small features, ten of which were dated ceramically to the earlier Bronze Age; their juxtaposition with a small ring-feature (0713) Iron Age date apparently entirely fortuitous (Fig. 4, Plate 4.). The pits were relatively consistent in their morphology and character, all oval or circular in shape with steeply, almost vertically, sloping sides. None measured more than 1.00m in diameter with depths not exceeding 0.50m. Fills comprised primarily of dark grey/brown silty sand with variable concentrations of small stones and cobbles.

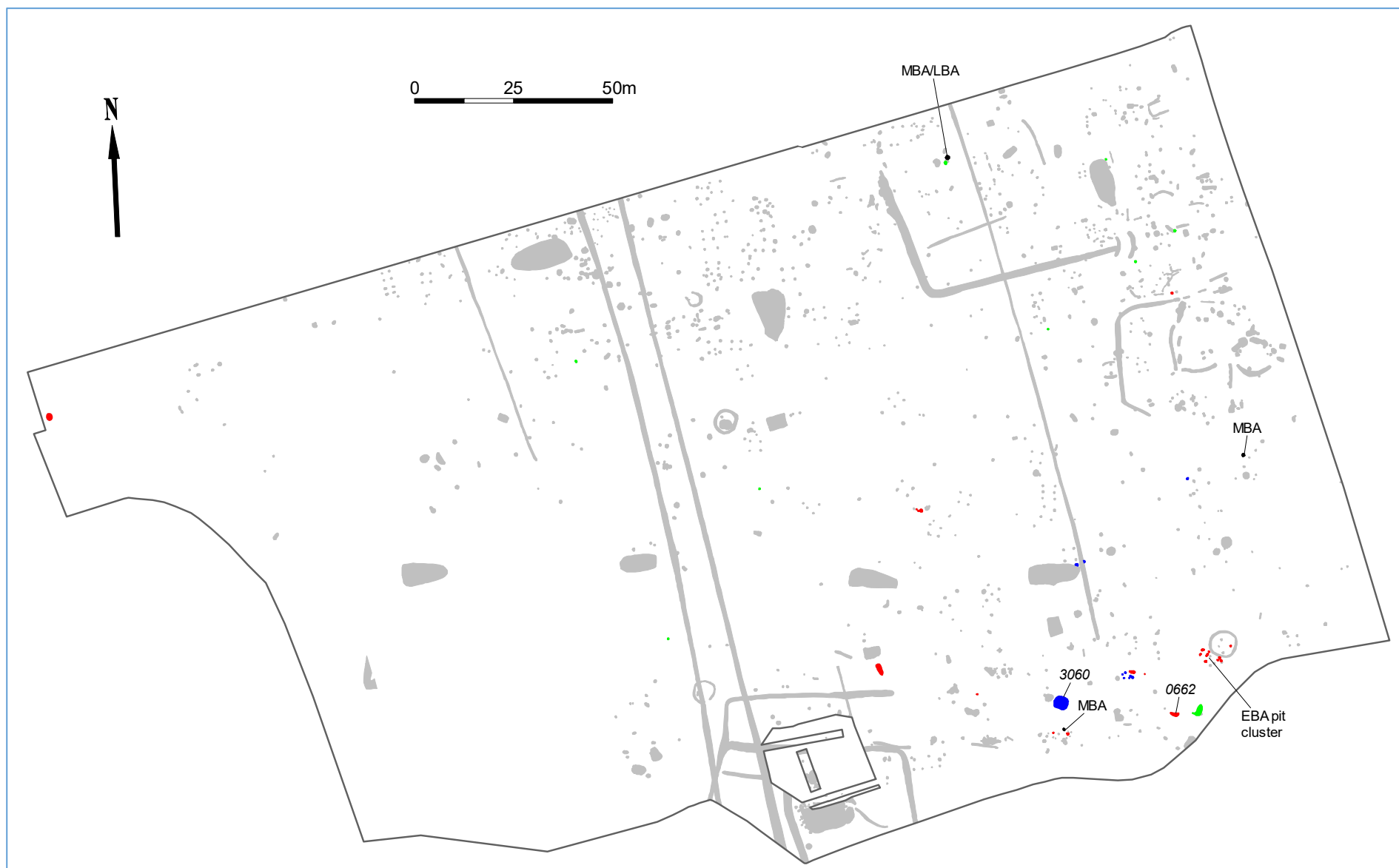


Figure 4. Plan of Early Bronze Age (red), Early/Middle Bronze Age (blue), Middle Bronze Age (labelled), Middle/Late Bronze Age (labelled) and Late Bronze Age (green) features



Plate 5. Early Bronze Age pit 0662; from W, 1.00m scale



Plate 6. Early to Middle Bronze Age pit 3060, south quadrant, 1.00m scales

Two other pits, 0662 and 3060, were considered to be worthy of further description at this juncture; these features are numbered on Figure 4 and are presented as Plates 5 and 6 respectively.

Pit 0662 was located c.17.00m to the south-west of the discrete pit group and exhibited attributes which suggest that it was a natural tree-throw. It was ‘crescent-shaped’, measuring 2.00m in length by a maximum of 0.90m in width with a rounded profile. However, below the homogenous light brown silty sand upper fill (0663), was a basal component (0664) comprising very dark grey, almost black, silty sand with charcoal flecks (Plate 5.); a significant assemblage of decorated Beaker pottery along with worked flint, including utilised and retouched pieces, was recovered from this fill.

Pit 3060, also located towards the southern side of the site, stood out in comparison to the other Bronze Age features as it was unusually large (Fig. 4, Plate 6.). It could be described as square, but with markedly rounded corners, measuring 3.00m across with sides varying from moderately sloping to vertical with a marked shoulder locally. The fills (3061 – 3063, 3095 - 3097) exhibited distinct stratification, although there was large, relatively homogenous middle component comprising very dark brownish/grey silty sand with occasional stones and moderate charcoal flecks. The ceramic assemblage indicated an Early to Middle Bronze Age date, while the moderately large worked flint assemblage was undiagnostic.

Iron Age

Features attributed indeterminate Late Bronze Age/Early Iron Age, Early Iron Age, and Middle Iron Age dates are detailed in Table 3 with their locations shown on Figure. 5.

Period	Site phase	Date range	Features
Total 3 features	Phase I.g.	Indeterminate Late Bronze Age/Early Iron Age	Pits: 0804, 2305, 3436 (Total 3)
Total 6 features	Phase I.h.	Early Iron Age; c.650 – 400 BC	Pits: 0048, 2903, 2941, 3374, 4128 (Total 5) Post-hole: 2799 (Total 1)
	Phase I.i.	Middle Iron Age; c.400 BC – 50 BC	Four-post structures: 2962, 3359 (Total 9 individual features) Pits: 0102, 0330, 0338, 0345, 0351, 0621, 0677, 0740, 0955, 2137, 2141, 2209, 2261, 2263, 2276, 2487, 2509, 2511, 2533, 2579, 2589, 2599, 2629, 2821, 2917, 3041, 3091, 3104, 3106, 3110, 3331, 3351, 3390, 3426, 3521, 3839, 3857, 3875, 3884, 3889, 3898, 3956, 3962, 3967, 3978, 4008, 4011, 4023, 4092, 4113, 4115, 4125, 4139, 4173, 4175, 4233, 4247, 4252, 4256, 4266 (Total 61) Gully: 3428 (Total 1)
Total 71 features			
Total 9 features	Phase I.g.-i.	Indeterminate Iron Age	Pits: 0094, 2943, 4120, 4152, 4154, 4156, 4237, 4243 (Total 8) Metal working furnace: 4117 (Total 1)

Table 3. Details of Iron Age features

Similarly to the earlier features, dating was almost entirely based on ceramic finds, although again, this may not reflect the true date of the context. The vast majority were described as pits, although there were two four-post structures, a metalworking furnace and a gully. Some of the features may be naturally derived with the function of most remaining uncertain.

Of the eighty-nine features attributed to the wider Iron Age, seventy-one were dated to the Middle Iron Age. None were located on the heavy glaciogenic clays in the south-west corner of the site. The nine indeterminate Late Bronze Age and Early Iron Age features were widely spaced throughout the rest of the site as were the Middle Iron Age and indeterminate Iron Age features, although it could be argued that the Middle Iron Age features were marginally more concentrated in a band running from north-west to south-east across the centre of the site (Fig. 5).

Of particular interest were the following features/structures. Those discussed in the text have been numbered in Figure 5 and, in the case of the pits, presented as Plates 7 -16.

Two of the many four-post structures recorded on the site produced ceramic evidence exclusively of Middle Iron Age date (2962 and 3359), although the assemblage was small and their inclusion in this phase is arguable. Generally, dating evidence from the four and six-post structures was sparse but, where present, usually indicated a Late Iron Age or Early Roman date. It is entirely possible that the Middle Bronze Age assemblages in 2962 and 3359 are entirely residual. However, the recognised currency of these structures does span from the middle/late Bronze Age through to at least the beginning of the Roman period and their presence would not be out of place within a Middle Bronze Age settlement. It may also be significant that the two structures were amongst the most southerly of those recorded, forming part of the loose concentration of Middle Bronze Age features running through the centre of the site. This said, their orientation was consistent with that exhibited by most of the later structures, although this alone cannot be used as an indicator of date.

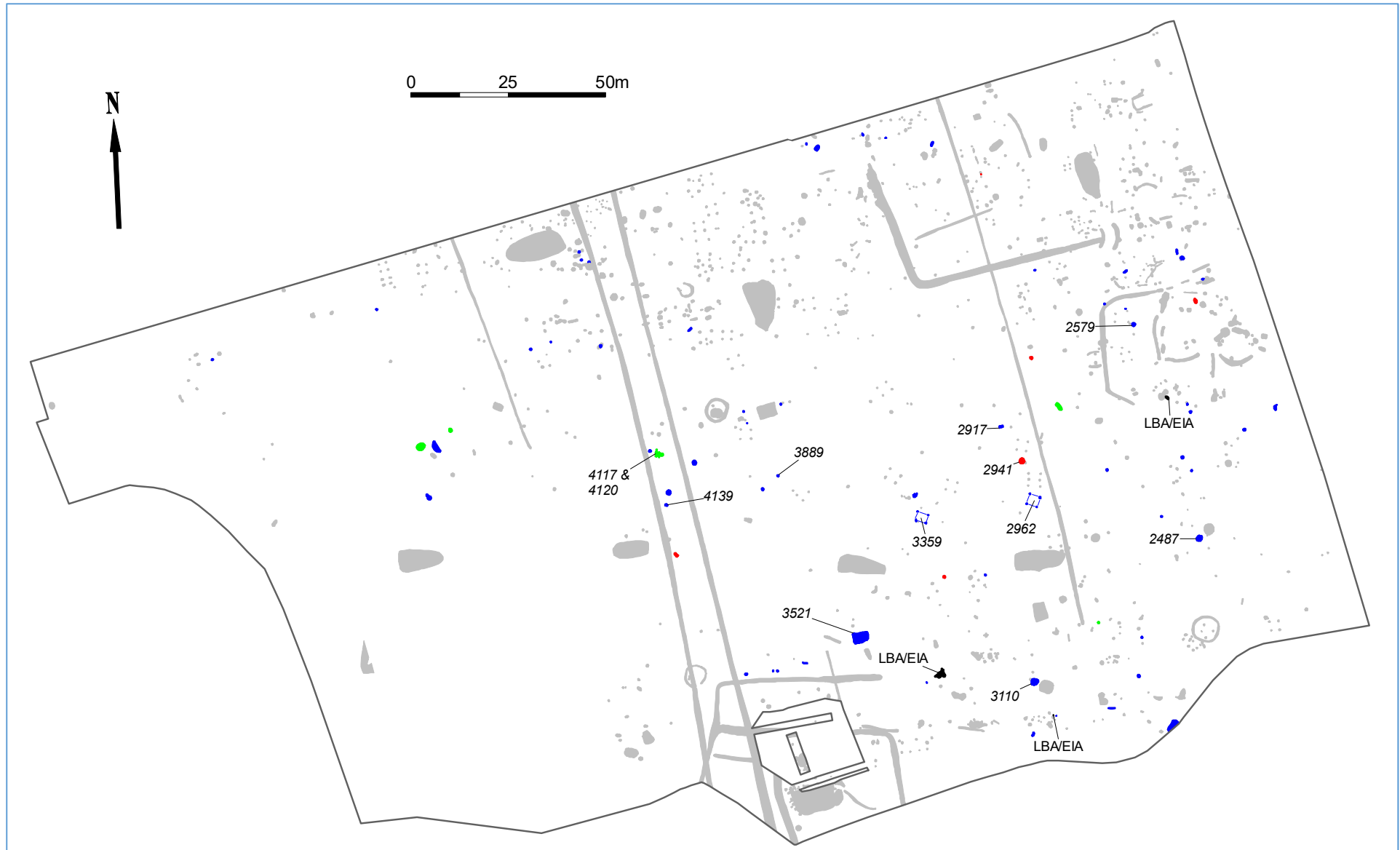


Figure 5. Plan of Indeterminate Late Bronze Age/Early Iron Age (labelled), Early Iron Age (red), Middle Iron Age features (blue) and indeterminate Iron Age (green) features

Structure 2962 was square, with sides measuring c.2.75m, while 3359 was rectangular, with sides measuring c.2.30m by c.2.75m, with two post-holes at its south-west corner, possibly indicative of repair.

The features described as pits varied markedly in their character and morphology, ranging from no more than shallow scrapes in the ground to large incised features. Some may have been naturally derived.

Of the six Early Iron Age pits, only 2941 was of note due to its relatively large size. It was sub-circular in shape, measuring c.1.60m in diameter, with a depth of 0.90m and steeply sloping sides to a gently rounded base (Plate 7.). The single fill 2942 comprised mid brown silty sand, grading lighter and sandier towards the edge and base, with moderate small to medium-sized stones, occasional small cobbles and very occasional charcoal flecks. Iron panning was noted towards its base. Dating was based on fifteen sherds of pottery, four of which were more indicative of the Early Iron Age rather than the less specific later Bronze Age/earlier Iron Age of the rest of the assemblage. Other finds included seventy-six pieces of struck flint, including a small number of tools and utilised items and heat-altered flint/stone.

Of the Middle Iron Age pits, nine have been selected for further detailed description.

Pit 2487 was oval in shape, measuring 1.75m by 1.45m, with a depth of 0.40m, and steeply sloping sides to an almost flat base (Plate 8.). The single fill, 2488, comprised homogenous pale to mid grey silty sand with occasional small to medium-sized stones. The finds assemblage included twenty-nine sherds of pottery of which twenty-one were considered to be Early Iron Age in date; the remainder were earlier or, in the case of one small middle to later Iron Age sherd on which the dating was based, was later, but may actually be intrusive. Other finds included a single small piece of fired clay, fourteen struck flints and heat-altered flint/stone.

Pit 2579 was circular, 1.20m in diameter, with a depth of 0.50m and asymmetrically sloping sides to a gently domed base (Plate 9.). Two fills were recorded; an upper component (2581) of dark grey/brown, very silty sand occasional small stones and charcoal flecks and a lower element (2580) lighter, yellow/grey silty sand with occasional small to medium-sized stones and charcoal lumps.



Plate 7. Early Iron Age pit 2941; from SSW, 1.00m scale



Plate 8. Middle Iron Age pit 2487; from SE, 1.00m scale



Plate 9. Middle Iron Age pit 2579; from ENE, 1.00m scale



Plate 10. Middle Iron Age pit 2917; from above, 0.30 and 0.50m scales

The combined finds assemblage recovered from both layers included three hundred and fifty-five sherds of pottery which were broadly indicative of a middle to later Iron Age date. Other finds included one hundred and fifty-one pieces of fired clay, forty-seven struck flints, a single piece of metalworking waste, a fragment of animal bone and heat-altered flints.

Pit 2917 was very precisely rectangular in shape, measuring 1.12m by 0.63m, 0.38m deep with steeply, sometimes near vertically, sloping sides down to a relatively flat base (Plate 10.). There was a very distinct interface between an internal fill (2922), comprising dark grey/brown silty sand with occasional small stones and charcoal flecks, and an external fill (2918) of mid orange/brown silty sand with occasional small stones and charcoal flecks. There were significant pieces of 'plank-like' charcoal associated with the internal component. It is possible that the feature had once been timber-lined with an intervening fill packed between it and the edge of the feature and that the lining, or at least a wooden lid/cover had subsequently partly burnt *in-situ*. However, the function of the feature remains unclear. Dating evidence was provided by five sherds of pottery; four were middle to later Iron Age, with one residual later Neolithic/earlier Bronze Age sherd, all from internal fill 2922. Other finds were limited to three struck flints, three tiny fragments of animal bone and heat-altered flints.

Pit 3110 was oval in shape, measuring 1.90m by 2.10m, 0.78m deep, with shouldered sides, locally overhung, to a gently angled base (Plate 11.). A shallow lip on the west side of the feature was individually numbered as 3120, but appeared continuous with 3110 in section. Single fill 3111 comprised relatively homogenous mid brown very silty, almost clayey sand, characterised by concentrations of large pebble to cobble sized flints, particularly towards the base, and occasional charcoal flecks. The dating evidence was provided principally by a small pottery assemblage of eight sherds, one of which was Middle Iron Age in date, while the remainder ranged from the later Neolithic to earlier Iron Age and were, presumably, residual. However, the other finds included twenty-two struck flints, eight of which were tools, and heat-altered flints, the former possibly indicative of an earlier date for the feature.

Pit 3521 was more securely dated to the middle/late Iron Age, with seventeen of the twenty-nine sherds of pottery recovered consistent with that phase.



Plate 11. Middle Iron Age pit 3110; from N, 1.00m scale



Plate 12. Middle Iron Age pit 3521; looking S, 1.00m scale



Plate 13. Middle Iron Age pit 3889; from S, 0.50m scale



Plate 14. Middle Iron Age pit 4139; from SSE, 0.40m and 0.50m scales

The pit was a regular rectangular in shape, measuring c.4.00m by c.2.50m with a depth of 1.14m and variably sloping sides to a flat base (Plate 12.). The stratified fills, variously numbered 3522, 3523, 3547, 3548, 3549 and 3550, generally comprised variously coloured silty clay with occasional small to moderate-sized stones and charcoal flecks. In addition to the aforementioned pottery, the finds assemblage included a small quantity of fired clay and metalworking waste along with eighty-two struck flints, including one tool and a number of retouched/utilised pieces, and heat-altered flint/stone.

Pit 3889 was sub-circular, 0.70m in diameter with a depth of 0.30m and steeply sloping sides to a flattish base (Plate 13.). The feature was lined with stiff yellow/green clay (3891) overlain by very dark brownish/grey silty sand with abundant, c.80% by volume, heat-altered flint and stone and frequent charcoal flecks (3890). Dating was provided by four sherds of middle-later Iron Age pottery recorded as being associated with the clay lining. Similar features have been identified previously at Flixton (Boulter 2006 and forthcoming) and at other sites in Suffolk, for example Wangford Quarry (Meredith 2016) and Shrubland Quarry, Coddham (Meredith 2018) where they were also associated with Iron Age occupation/activity. Another example from the SEY 035 site, 3091, also included Middle Iron Age pottery, while 2993 dated as Bronze Age. Their most likely function probably involved the heating of a liquid held in the pit by inserting hot stones.

Pit 4139 was sub-circular, 1.50m in diameter, 0.42m deep, with asymmetrically sloping sides to a flattish base (Plate 14.). Single fill, 4141, comprised dark greyish brown silty sand with occasional small stones. While soil-stripping the circular outlines of three ceramic vessels were noted that, when excavated, were found to represent substantial, if incomplete, pots that appeared to have been deliberately placed in the feature. The pots were all identified as Middle Iron Age in date. Other finds were limited to ten small pot sherds that may have been associated with the three main vessels.

One significant group of features (4117, 4120, 4124, 4152, 4154, 4156), although unfortunately not closely datable other than broadly as Iron Age, appeared to represent a discrete area of metalworking, almost certainly smithing. The two principal features were a furnace base (4117) and a clay-lined pit (4120) (Plates 15 and 16).



Plates 15 & 16. Furnace pit 4117 and pit 4120; from S, 0.50m and 1.00m scales

Furnace 4117 essentially comprised a circular, c.0.70m diameter pit, 0.25m deep with a second, shallower, irregular lobe (4124) to the north (Plate 15.). There was a complex sequence of fills recorded. A lower component (4135) extended right across the base of the pit. There was then a heat-reddened lining of clay (4123) which was constructed from that level, only extending up the sides of the pit, with an intervening fill (4138), comprising mid orange/brown silty sand with occasional small stones, between it and the pit sides. There were two further deposits recorded backfilling within the main body of the feature; an upper layer (4121) of mid yellowish brown silty sand with occasional small stones and a lower fill (4122) comprising almost entirely of concreted dark brown/grey silty sand, ash and metalworking waste. Pit 4120 was circular, 0.80m in diameter, 0.46m deep with steeply sloping side to a flat base (Plate 16.). The base of the feature was covered in stiff green clay (4151) which may once have formed a more extensive lining. Two principal fills were recorded; an upper component (4149) of mid to dark grey/brown silty sand with occasional stones and frequent charcoal, over 4150 that was similar in character apart from the presence of frequent heat-altered stones, almost exclusively of sandstone.

Prehistoric unspecified date

A total of sixty-three features were attributed and unspecified prehistoric in date, as they produced no diagnostic finds to securely place them within a specific phase. However, their character and the presence of material such as undiagnostic worked flint and heat-altered flint/stone was indicative of an early date.

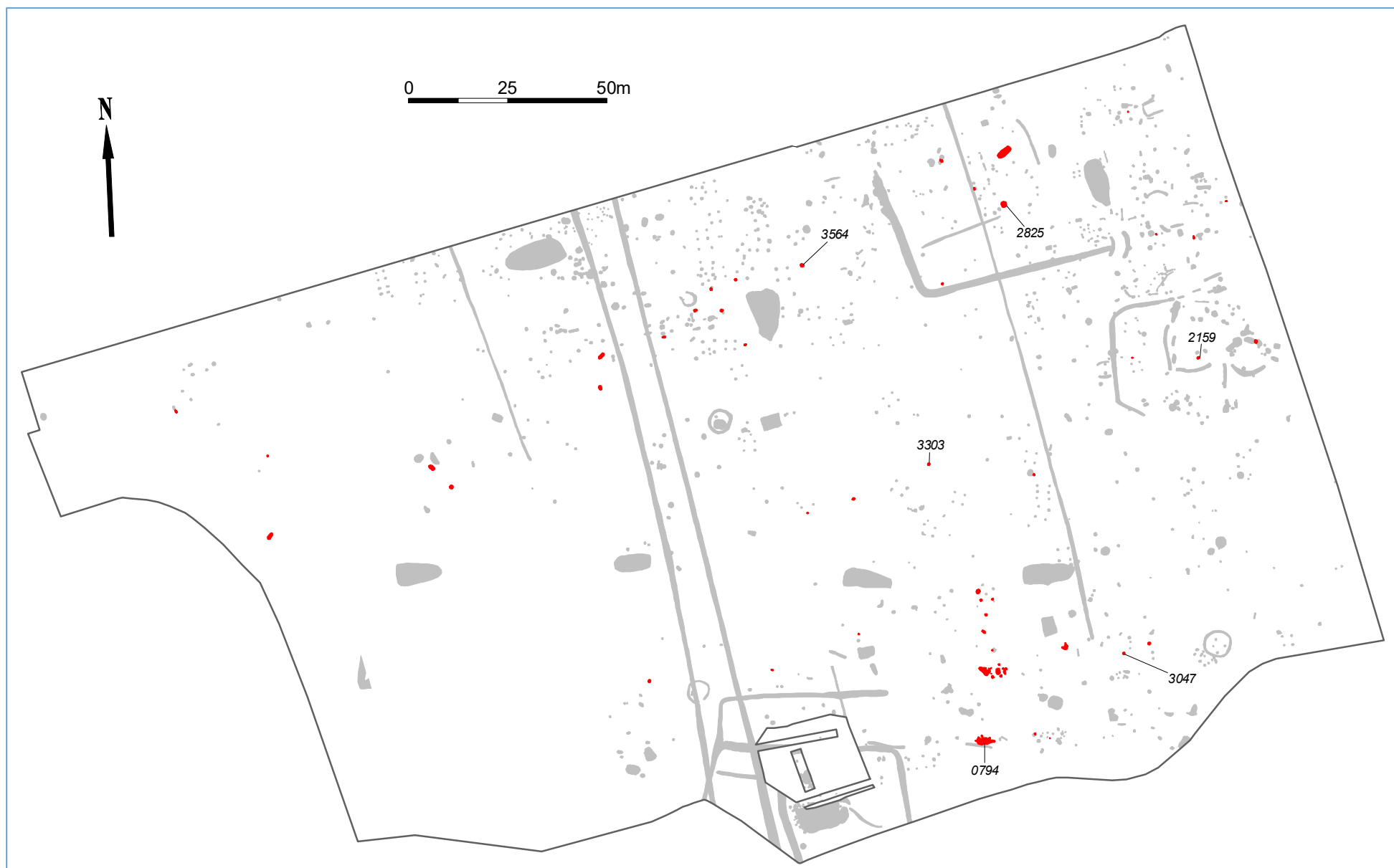


Figure 6. Plan of features of unspecified prehistoric date (red)

Period	Site phase	Date range	Features
	Phase I.0.	Prehistoric; unspecified date	Pits/post-holes: 0106, 0110, 0583, 0588, 0592, 0645, 0748, 0809, 0813, 0816, 0820, 0824, 0827, 0829, 0831, 0882, 2048, 2126, 2159, 2566, 2768, 2771, 2807, 2825, 2831, 2930, 3039, 3047, 3050, 3303, 3386, 3398, 3402, 3416, 3424, 3445, 3447, 3449, 3451, 3453, 3455, 3457, 3459, 3461, 3528, 3564, 3566, 3656, 3733, 3776, 3789, 3842, 3902, 3912, 3964, 4067, 4090, 4103, 4245, 4250, 4283 (Total 61) Oven base: 0794 (Total 1) Layer: 0823/2666 (Total 1) Spot-find: 2593 (Total 1)
Total 63 features			

Table 4. Details of unspecified prehistoric date features

The features are detailed in Table 4 with their locations shown on Figure. 6. Generally, they were dispersed across the all areas of the site with the exception of the heavy clay to the south-west. Given that a high percentage of the more securely dated features over this area were Iron Age or Early Roman, it seems reasonable to suggest that many of the features assigned as undated, were actually of these periods.

Most significant, was the base of a clay-lined oven 0794. However, the majority were described as pits or post-holes, although the latter were all associated with the oven base. The features described below are numbered on Fig. 6 and presented as Plates 17 - 22.

Oven 0794 was located towards the southern end of the site. Only the clay base of the feature (0796) and a few associated clay-filled post-holes had survived, although a thin layer of dark grey/brown silty/clayey sand with moderate charcoal and occasional to moderate small to medium-sized pebbles (0795) was recorded locally overlying its surface. Nine sherds of Middle Bronze Age pottery were recovered from layer 0795 but, given the uncertainty of what the overlying layer represented in relationship with the oven base, it seemed prudent not to perceive these finds as secure dating evidence. However, a middle Bronze Age date cannot entirely be dismissed and a single sherd of similar date was recovered from the fill (0814) of post-hole 0813, one of those possibly associated with the oven. The surviving elements of the feature measured c.4.80m by c.2.50m (Plate 17.), comprising principally of stiff yellow/green clay with a discrete heat-reddened oval area centrally, including a hardened patch which almost certainly represented the actual internal surface of the oven itself. In addition to the aforementioned small pottery assemblage, other finds recovered from layer 0795 that may have been associated with the oven included fragments of fired clay, fifty struck flints, including four tools, and heat-altered flint/stone.

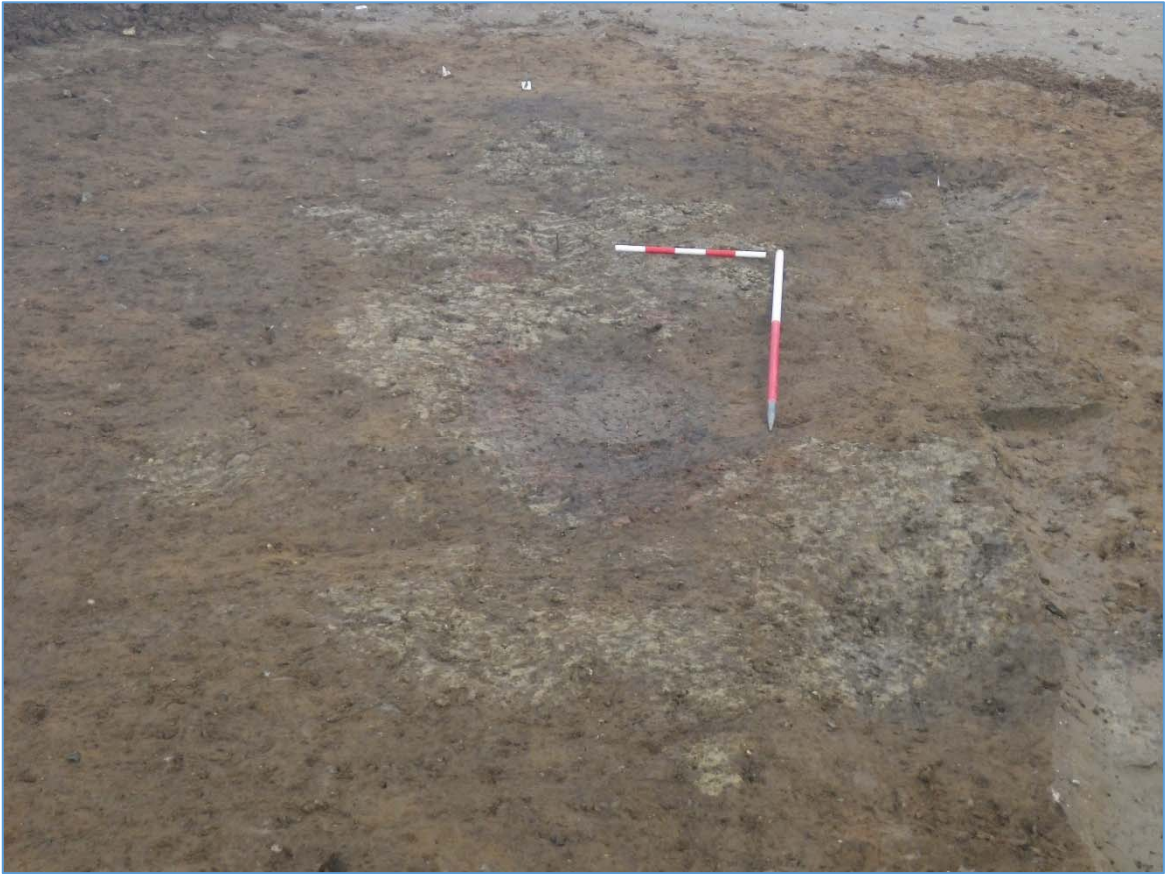


Plate 17. Prehistoric oven base 0794; from W, 0.50m and 1.00m scales



Plate 18. Prehistoric pit 2159; from SW, 0.50m scale

The majority of the clearly more genuine features were small to medium sized pits, for example, 2159, 2825 and 3564 (Plates 18 - 20).

Pit 2159 was sub-circular, c.0.80m in diameter, had a depth of 0.36m and exhibited a rounded profile (Plate 18.). Two fills were recorded; an outer component (2160) comprising a mixture of lumps of stiff yellow clay and brown sandy clay, described as possibly representing a disrupted lining, and a central fill (2161) of dark grey brown silty clay with occasional small and medium sized stones and charcoal flecks. The finds, with the exception of a single struck flint, were recovered from the central fill, including eight sherds of undiagnostic prehistoric pottery along with 241 pieces of worked flint, three of which were hammerstones, heat-altered flint and stone, and small quantities of fired clay and animal bone.

Pit 2825 was sub-circular, c.1.35m in diameter, had a depth of 0.52m, with moderately sloping sides to an irregular base (Plate 19.). Single fill, 2826, comprised dark to mid grey/brown soft sandy silt, grading paler towards the edges, with occasional to moderate amounts of small to medium-sized stones and occasional charcoal flecks. Finds were limited to three struck flints and heat-altered flint.

Pit 3564 was circular, 1.04m in diameter, had a depth of 0.24m with moderately sloping sides to an angled base (Plate 18.). A deepening on the eastern side was numbered separately as 3566. Single fill, 3565, relatively homogenous brown, very silty, almost clayey sand with occasional small stones and charcoal. The charcoal was concentrated towards the base in conjunction with a hint of *in situ* heat reddening. Finds were limited to a single fragment of fired clay and two heat-altered flints.

Also of note were two clay-lined features, 3047 and 3303 (Plates 21 and 22), that were similar in character to the more securely dated, Middle Iron Age pits 3091 and 3889. Both were circular, measuring 0.66m and 0.72m respectively with surviving depths of 0.16m and 0.27m and rounded profiles. Linings of stiff yellow/green clay were present (3048 and 3305), with overlying fills (3049 and 3304) comprising largely of heat-altered flint and stone in a matrix of dark grey brown silty sand with charcoal flecks. Given their similarity with the more securely dated Middle Iron Age examples, 3091 and 3889, it is likely that they too are Iron Age in date, but are not included due to the lack of datable finds. Possibly of significance, was the presence of metalworking waste in fill 3304.



Plate 19. Prehistoric pit 2825; from WSW, 1.00m scale



Plate 20. Prehistoric pits 3564 and 3566; from N, 1.00m scale



Plate 21. Prehistoric pit 3047; from S, 0.50m scale



Plate 22. Prehistoric pit 3303; from SSE, 0.50m scale

4.3 Late Iron Age and Roman

Features attributed Late Iron Age and Roman dates are detailed in Table 5 with their locations shown on Figures 7 and 8. The dating of these features was based on a combination of artefactual evidence, principally ceramics, stratigraphy and the spatial relationships between features forming a part of discrete structures.

Period	Site phase	Date range	Features
Roman	Phase II.a.	Late Iron Age c.1 st century BC – 43 AD	Pits/post-holes: 0050, 0058, 0061, 0076, 0080, 0155, 0195, 0205, 0314, 0316, 0320, 0328, 0332, 0350, 0360, 0401, 0402, 0416, 0418, 0450, 0543, 0545, 0571, 0608, 0868, 2213, 2246, 2250, 2257, 2266, 2380, 2458, 2568, 2601, 2617, 2627, 2645, 2665, 2673, 2685, 2701, 2745, 2907, 2923, 2955, 3006, 3013, 3267, 3269, 3301, 3306, 3735, 3748, 3756, 3768, 3781, 3787, 3799, 3803, 3815, 3836, 3862, 3882, 3910, 3920, 3999, 4018, 4029, 4046, 4055, 4065, 4082, 4088, 4094, 4105, 4107, 4109, 4169, 4181, 4183, 4185, 4211, 4218, 4230, 4262 (Total 86) Four-post structures: 0362, 0371, 0539, 0550, 0655, 2553, 2932, 2989, 3333, 3342, 3654, 3819 (Total 12; 52 individual features including repairs) Six-post structures: 2971 (Total 1; 6 individual features) Ring-gullies: 0713, 3761, 3928, 3972 (Total 4) Slots/gullies: 3194, 3783 (Total 2) Layer: 4215 (Total 1)
Total 152 features			
	Phase II.a.	Late Iron Age/Early Roman c.1 st – E.2 nd century AD	Pits/post-holes: 0076, 0078, 0273, 0287, 0292, 0322, 0355, 0358, 0404, 0412, 0414, 0487, 0548, 0602, 0611, 0613, 0625, 0630, 0669, 0846, 0851, 0859, 0862, 0872, 0878, 0886, 0890, 0892, 0894, 0896, 0898, 0900, 0902, 0907, 0912, 0922, 0926, 0930, 0935, 0941, 0943, 0953, 0957, 0976, 2011, 2014, 2033, 2071, 2080, 2082, 2103, 2105, 2118, 2122, 2150, 2152, 2156, 2176, 2178, 2185, 2189, 2191, 2196, 2320, 2322, 2324, 2355, 2357, 2361, 2364, 2378, 2391, 2400, 2424, 2431, 2435, 2449, 2454, 2475, 2495, 2515, 2523, 2529, 2544, 2562, 2587, 2604, 2619, 2621, 2637, 2639, 2656, 2667, 2683, 2711, 2737, 2739, 2781, 2783, 2785, 2789, 2793, 2795, 2823, 2836, 2844, 2847, 2849, 2864, 2874, 2888, 2901, 2926, 3164, 3179, 3185, 3187, 3208, 3215, 3232, 3272, 3274, 3276, 3278, 3540, 3544, 3699, 3725, 3731, 3750, 3772, 3795, 3859, 3900, 3906, 4014, 4025, 4027, 4033, 4035, 4037, 4041, 4044, 4051, 4057, 4059, 4063, 4161, 4179, 4201 (Total 150) Four-post structures: 0561, 0940, 2062, 2912, 3284, 3320, 3551, 3568, 3595, 3611, 3653, 3655, 3662, 3675, 3686, 3701, 3806, 3841, 3848, 3866 (Total 20; 80 individual features including repairs) Six-post structures: 3583 (Total 1; 7 individual features) Ditches: 0052, 0152 (Total 2) Slots/gullies: 0064, 0853, 0970, 0972, 2086, 2107, 2113, 2134, 2143, 2146, 2170, 2180, 2182, 2215, 2219, 2222, 2226, 2317, 2353, 2394, 2412, 2477, 2583, 2609, 2723, 2787, 2791 (Total 27) Spot-finds: 0672, 3646 (Total 2)
Total 265 features			
Total 8 features	Phase II.b.	Roman; c.E.2 nd – E.4 th century AD	Pits: 0072, 0253, 0255, 0261, 0637, 0640, 0950, 2020 (Total 8)
	Phase II.0	Roman; unspecified date	Pits/post-holes: 0054, 0294, 0306, 0318, 0643, 0660, 0704, 0864, 0866, 0876, 0884, 0888, 0924, 0945, 0968, 2009, 2016, 2018, 2044, 2058, 2073, 2130, 2154, 2164, 2168, 2199, 2288, 2295, 2309, 2311, 2376, 2389, 2426, 2429, 2438, 2445, 2447, 2537, 2539, 2570, 2574, 2623, 2658, 2719, 2721 (Total 45) Six-post structure: 2820 (Total 1; 6 individual features) Slots/gullies: 2376, 2414 (Total 2)
Total 53 features			

Table 5. Details of Late Iron Age and Roman features

Late Iron Age/Early Roman

Features attributed a Late Iron Age/Early Roman date are detailed in Table 5 with their locations shown on Figure. 7. While again, the majority were described as pits, a wider range of feature types were recorded, including ring-gullies, ditches, slots/gullies and a significant number of four and six-post structures.

Precise dating within the period spanning the later Iron Age and earlier Roman period can often be problematic, and Flixton is no different in this respect. The assigning of a pre- or post-conquest date to an assemblage is sometimes nigh on impossible, particularly with a site that has clearly been subject to continuous occupation throughout that period, with residual and intrusive material present in many assemblages. However, in an attempt to impart some definition, the features within the Period II.a. phase have further been subdivided as either:

LIA: features that are more likely to be pre-conquest as their finds assemblages do not include overtly romanised material (green on Fig. 7).

LIA/Early Roman: features which include material (mixed Iron Age and Roman ceramic fabrics) with a currency which suggests a date that is likely to be 1st century AD, even extending up to the beginning of the 2nd century AD (red on Fig. 7).

A total of one hundred and fifty-two features were attributed to the Late Iron Age, while two hundred and sixty-five as Late Iron Age/Early Roman; clearly representing the most intense phases of activity on the site. Figure 7 shows how the distribution between the two phases is broadly similar, although the potentially later phase, presented in red, contracts towards the north-east where it was most heavily concentrated. Similarly to the prehistoric phases, the heavier clay to the south-west appears to have been unattractive for occupation compared to the lower lying and freer draining sandier soils to the north-east. Features discussed in the text are numbered on Figure 7 with most also presented as Plates 23 – 49.

While both phases were dominated by pits in terms of numbers of feature, the most significant aspect was the presence of thirty-two four-post structures and two six-post structures, presumably facilitating storage of materials such as grain, that formed a swathe through the middle of the site, albeit with a marked concentration centre north.



Figure 7. Plan of features of Late Iron Age/Early Roman date (green LIA, red LIA/EROM)

The dating evidence was sparse from these structures, but was sufficiently secure to place them in the broader later Iron Age/earlier Roman period, with a suggestion that the later examples tended towards the north (Fig. 7). The vast majority did not encroach on their nearest neighbours, with which they frequently shared a common alignment. However, there were occasional overlaps and juxtapositions that could not have worked if adjacent structures were in use at the same time (e.g. 0362 and 0371; Plate 23.). This suggests the protracted use of an area of the site for a similar activity with phases of rebuilding. In one instance, 0550, double post-holes suggested a complete rebuilding/replacement on effectively the same footprint (Plate 24.).

Overall, there was a consistency in the groundplans of the four-post structures; each of the post-holes forming the corner of a square, with sides measuring between c.2.50m and c.3.30m (Plate 23.). While most of the post-holes were circular to oval in shape, the individual features varied somewhat in their character and morphology. At the smaller end of the scale, for example post-hole 3708 in structure 3701 with a diameter of 0.38m and a depth of 0.34m, they usually exhibited a single fill; in this instance, 3709, comprising dark brownish grey silty sand with occasional small stones and charcoal flecks (Plate 25.). However, some were considerably larger, for example 3578 in structure 3568 with a diameter of 0.76m and a depth of 0.40m (Plate 26.), although others were deeper still. These often exhibited clear evidence for a post-pipe and outer post-packing. In this instance, an outer component (3579), comprised mid yellowish brown silty sand with occasional small stones and the central element (3580) of mid greyish brown silty sand with frequent charcoal flecks and occasional small stones.

In addition to the four-post structures, there were two with six posts; one (3583), located in the northern concentration and the other (2971) more isolated towards the centre of the site, but still within the overall swathe of structures (Fig. 7). It is assumed that these are simply a slightly larger variant of the four-post structures and performed a similar function. They have been recorded on other sites including Flixton (Boulter 2015) with a similar currency and frequency in relation to the more numerous four-post structures.

In both instances, the footprint of the six-post structures was square with the additional posts located central to two of the opposing sides. One, 2971, measured c.3.60m by c.3.60m and the other, 3583, c.4.00m by c.4.00m.



Plate 23. Four-post structures 0362 and 0371; from N, 2.00m scales



Plate 24. Four-post structures 0550; from NNW, 1.00m and 2.00m scales



Plate 25. Post-hole 3708; from S, 0.30m scale



Plate 26. Post-hole 3578; from N, 0.50m scale

Four ring-gullies were recorded; all assigned as Late Iron Age (0713, 3761, 3928 and 3972) (Table 4 and Fig. 7). The size and character of these features suggested that they were not associated with round-houses and their function/s remain unclear.

Ring-gully 0713, located close to the south-east corner of the site, was near-circular, c.7.00m in diameter and described a continuous circle (Fig. 7, Plate 4.). The ditch itself was c.0.40m to c.0.70m wide with a depth not exceeding 0.25m and a fill (0714 – 0716 and 0776 – 0780 and 0787) of relatively homogenous mid brown silty sand with moderate small stones and charcoal flecks. There was no evidence to suggest that any of the four features recorded internal to the circle were directly associated with it, although the possibility cannot entirely be ruled out. Dating evidence was provided by a moderate assemblage of pottery which, although of mixed prehistoric date, was dominated by middle to late Iron Age material, while stratigraphically, one of the adjacent Early Bronze Age pits, 0717, was clearly truncated by the ditch.

Ring-gully 3761, was located towards the northern edge of the site adjacent to the most concentrated area of four-post structures (Fig. 7). The feature was penannular, almost horseshoe shaped, only c.3.8m in diameter with the opening to the north-west (Plate 27.). The ditch itself varied in width from 0.28m to 0.70m with a maximum depth of 0.24m and a rounded profile. The single fill (3762 - 3767) comprising mixed mid brownish grey and mid brown silty sand with occasional yellow/yellowish orange sand lenses and occasional mixed stones and charcoal flecks. A discrete deepening (3768) recognised within the base of the ditch on its south side was recorded as a separate context, but may have been contemporaneous. A single feature, undated post-hole 3770, was located within the area enclosed by the ditch but, with no associated dating, the possibility that the two features were related cannot be positively ascertained. The finds assemblage was limited to five sherds of later Iron Age pottery, a single struck flint and heat-altered flint/stone.

Ring-gully 3928 was located relatively central to the site on the edge of the swathe of four-post structures (Fig. 7). The ditch was c.6.00m in diameter, describing a full circle (Plate 28.). The ditch itself was varied between 0.46m and 1.03m in width with a maximum depth of 0.28m and a variable profile. The single fill (3929 – 3933) comprised mid to dark greyish brown silty sand with occasional small stones and charcoal flecks. The finds assemblage included twenty-one sherds of predominantly later Iron Age

pottery, but with one possibly later sherd which could push the date towards or beyond the Roman conquest. Other finds included fourteen small pieces of fired clay, fifteen struck flints and heat-altered flint/stone.

Two features were located in the area enclosed by the ditch; a small circular undated pit (3939) and a large, irregular oval-shaped pit 3900, the latter measuring c.3.20m by c.2.40m with steeply sloping sides to a flat base. The fill (3901, 3909, 3986 and 3987) comprised dark brownish grey silty sand with occasional stones, moderate heat-altered stone, the majority of which was flint, and moderate charcoal flecks. Centrally, there were two thick lenses of pale yellow soft sand and at the edges there was slumped natural sand. The base of the fill is particularly firm with some panning directly over the natural soft yellow sand. While the location of the pit discretely placed within the ditch could be fortuitous, the dating, based primarily on the ceramic finds assemblage of ninety-three sherds, was overwhelmingly of later Iron Age date and, therefore, likely to be contemporary with the surrounding ditch. Other finds recovered from the pit included thirty-seven pieces of fired clay, one hundred and one struck flints, six fragments of animal bone and a relatively large quantity of heat-altered flint/stone.

Ring-gully 3972 was located towards the centre southern edge of the site, close to the boundary with the heavy clay subsoil to the west (Fig. 7). The feature was penannular, c.6.00m in diameter with the opening to the south-south-east (Plate 29.). The ditch itself varied in width from 0.24m to 0.54m with a depth not exceeding 0.20m and a rounded profile. Single fill (3973, 3980 – 3983, 3988 – 3991) comprised mid orangey brown silty sand with occasional small stones and charcoal flecks. The finds assemblage was limited to six sherds of later Iron Age pottery, along with thirty-eight struck flints and a small quantity of heat-altered flint/stone.

Twenty-nine features were described as slots and gullies, a term that was used to separate relatively short, sometimes sinuous or curving linear features from the longer, straighter boundary elements described as ditches. This category included a wide range of features, some that arguably could be structural, others that could have functioned as localised boundaries and some of indeterminate function. Also included were some ephemeral features that may have been naturally derived, but included datable artefactual evidence.



Plate 27. Ring-gully 3761; from NW, 1.00m scales



Plate 28. Ring-gully 3928 and pit 3900; from SSW, 1.00m scales



Plate 29. Ring-gully 3972; from SSE, 1.00m scales



Plate 30. Slots 0970 and 2086; from WSW, 1.00m scales

A slot-like feature towards the north-east corner of the site, described three sides of an open-ended rectangle (collectively *0970*), with the eastern end possibly truncated during machining (Fig. 7, Plate 30.). Another slot-like feature, *2086*, cut north side of *0970*. The area demarked by *0970* measured 3.35m from south-south-east to north-north-west and in excess of 4.75m from west-south-west to east-north-east. The individual elements of *0970* varied between 0.30m and 0.40m in width with a maximum depth of 0.26m and exhibited a rounded profile. The fill (*0971, 2092 - 2101*), comprised homogenous mid grey/brown clayey sand containing occasional small stones and occasional charcoal flecks. Only a small artefactual assemblage was recovered; two small sherds of pottery, eight pieces of fired clay, one struck flint and heat-altered flint/stone. The inclusion of *0970* in this phase was based more on the dating of cutting slot *2086* (see below). Slot *2086* was c.3.30m long with a width of 0.60m and a maximum depth of 0.40m and a V-shaped profile. The fill (*2087 – 2090, 2102*) produced twenty-two sherds of pottery, the majority of which suggested the Late Iron Age/Earlier Roman date, although a few small sherds were described just as Roman. Other finds included fourteen pieces of fired clay, four struck flints, heat-altered flint/stone and two pieces of metalworking waste. The function of these features was unclear, but a structural use cannot be ruled out, particularly for *0970*.

A series of slots, some substantial and ditch-like, were associated with an area of concentrated activity on the eastern side of the site (Fig. 7). The longest (collectively *0064*), ran for approximately 44.00m, c.8.00m in a north westerly direction from a south-east facing butt-end, before turning to the north for a further 20.00m and then curving to a near east to west alignment before butt-ending. The east to west alignment was then continued by a series of trough-like features. Collectively, these appeared to partly delimit an area to the east where a series of shorter linear, almost certainly contemporaneous slots/gullies were located, seemingly used to separate smaller areas of the site. The dimensions of these features varied markedly; at its widest point, slot/gully *0064* measured c.1.30m across, usually exhibiting a rounded profile and a depth not exceeding 0.36m. One of the features, *2353*, while clearly forming part of the associated group, was more substantial and could almost be described as a trough-like pit which, at its northern end, was c.1.60m wide and 0.84m deep. A section through the centre of *2353* is presented as Plate 31. The fill of the majority of these features comprised relatively homogenous grey/brown silty sand with occasional to moderate small stones and charcoal flecks.



Plate 31. Slot/gully 2353; from NNE, 1.00m scale



Plate 32. Slot 2394; from SW, 1.00m scales

Collectively, a moderately large finds assemblage was recovered from these features. The pottery was overwhelmingly of later Iron Age/Early Roman date with some residual material. There were a few sherds described simply as 'Roman' which for this site effectively means non-diagnostic material that is still broadly consistent with the later Iron Age/Early Roman period, but potentially could have extended a little beyond (*Smyrnaiois pers. comm.*).

While clearly representing a significant focus for activity, presumably domestic in character, only limited structural evidence was recorded within the areas enclosed by the slots/gullies; four-post structure 2553 which artefactually dated as Late Iron Age. Also of significance, is the fact that one of the two identified clusters of Middle Roman features and a number of the unspecified Roman date features were located within the area encompassed by these slots (Fig. 8). This and the presence of the 'Roman' pottery in the slot/gully assemblages, suggests that the activity in this immediate area continued on beyond the end of the 2nd century.

Two other slots/gullies that from their character and juxtaposition may be of some significance, albeit with an unknown function, were 2394 and 2477 located close to the east facing butt-end of ditch 0152, in fact, from the surface, slot 2477 appeared to cut the ditch, but this was not evident in the excavated section. Both slots curved gently round from north-north-west to south-south-east.

Slot 2394 was 7.35m long, a relatively uniform c.1.00m wide, with a depth varying markedly from c.0.30m down to 0.96m at its southern end (Plate 32.). Its sides varied from moderately sloping to near-vertical with a pronounced shoulder. The fill (2395 – 2398, 2420, 2443, 2444, 2468), exhibited a hint of stratification but generally comprised mid - dark grey/brown very silty sand with moderate small stones with some lensing of yellow sand and moderate charcoal flecks. The finds assemblage was large, including five hundred and eighty-five sherds of mixed Later Iron Age and Roman pottery, but with some definite post-conquest pieces and a significant amount of indeterminate Roman material which, as stated above, does not contradict the attribution to this phase, but it must be treated with caution and a later date cannot be completely dismissed. Also present were one hundred and eighty-five pieces of fired clay, twenty-nine struck flints, one hundred and twenty-six fragments of animal bone, one iron nail and heat-altered flint/stone.

Slot 2477 was similar to 2394, but smaller, measuring 5.30m in length, a relatively uniform c.0.70m in width with an undulating base (lengthwise), rounded cross-profile and a maximum depth of 0.40m. The fill (2478, 2479, 2480, 2481) comprised relatively homogenous very dark grey/brown silty, almost clayey, sand and moderate small to medium-sized stones and charcoal flecks. The finds assemblage included one-hundred and twenty-one sherds of pottery that was similarly mixed in date to that of 2394. Again, there was a significant proportion of indeterminate Roman material and one tiny sherd of potentially 2nd – early 3rd century date. Other finds included fifty-nine pieces of fired clay, seven struck flints, thirty-six fragments of animal bone and heat-altered flint/stone.

Two features were described as ditches, 0052 and 0152; the latter running in a west-south-westerly direction for a distance of c.50.00m, starting from an east-north-east facing butt-end, before turning at just over ninety degrees to the north-north-west as 0052, running for c.35.00m before terminating in multiple butt-ends that indicate episodes of re-cutting (Fig. 7, Plate 33). At their widest points, none of the ditch components exceeded 1.50m or exhibited depths greater than 0.50m. These re-cuts were not evident in 0152. Generally, the ditches exhibited rounded to open V-shaped profiles with relatively homogenous fills of mid to dark grey/brown silty sand with moderate small to medium-sized stones. The artefactual assemblages included one hundred and fifty-nine sherds from fill contexts in ditch 0052 and two hundred and six sherds from ditch component 0152. A number of fill contexts were particularly productive; 3182 in ditch 0052 produced eighty-nine sherds while 3159, 3483 and 3484, in ditch 0152, produced seventy-seven, forty-seven and twenty-six, respectively. The dating for the ceramic assemblage was predominantly a mix of later Iron Age, earlier Roman and indeterminate Roman material. However, context 2483 in ditch 0152 included fourteen small sherds with a currency that could have extended into the 3rd century AD and context 2650 included a copper alloy needle (SF 1141) of similar, possibly even 4th century date. Ditches are notoriously difficult to date as the material included has often been through multiple cycles of deposition and the feature itself subject to re-cutting. The presence of a small quantity of this later material could be taken as an indication that the ditch had an extended period of use, possibly continuing as a diminishing, but still open feature as late as the 4th century.



Plate 33. Ditch 0052, multiple cuts, with pit 3187; from NNW, 2.00m scale



Plate 34. Pit 0058; from SW, 0.30m scale

Other than a localised ill-defined layer (4215) and two spot-finds (0672, 3636), the former a piece of Hertfordshire Pudding Stone and the latter a spread of thirty pottery sherds, the remaining two hundred and thirty-six features were described as pits and post-holes. Of these, eighty-five were attributed to the later Iron Age with one hundred and fifty the less specific later Iron Age/earlier Roman date. This category included a wide range of features with markedly varying sizes, morphologies and character. Many were small and inconsequential, possibly even naturally derived, while others required a substantial input of manual excavation. Fifteen of the more significant features are described below in context order; pit 3900 has already been described in conjunction with ring-gully 3928.

Pit 0058 was an unremarkable looking feature, circular with a diameter of c.0.60m, had a depth of c.0.14m and exhibiting a rounded profile (Plate 34.). The single fill, 0059, comprised relatively homogenous mid brown silty sand, becoming lighter towards base of the feature. However, the artefactual assemblage included fifty-three sherds of pottery with a weight of over half a kilogram, six struck flints, one of which was a scraper and, most significantly, four glass beads (SF's 1005, 1014 – 1016). Unfortunately, the pottery, while representing a relatively sizable assemblage, was essentially undiagnostic, leaving the beads as the principal dating evidence suggesting a later Iron Age date for the feature.

Pit 0355 was circular, 1.40m in diameter, 0.66m in depth with near vertical sides that gave way to a flat base (Plate 35.). The single fill (0356) comprised relatively homogenous mid grey/brown silty sand with moderate small stones and occasional large cobbles at the base. While not obvious in the photograph, a post-hole (0358) was recorded as cutting the pit fill. The finds assemblage included twelve sherds of later Iron Age/earlier Roman pottery along with, eleven struck flints, three fragments of animal bone, a small piece of metalworking waste, a single fragment of Roman CBM and heat-altered flint/stone.

Pit 0401 was an irregular oval in shape, measuring 1.80m by 1.50m, 0.60m in depth with asymmetrically sloping sides to a flat base (Plate 36.). The stratified fill comprised an upper component (0397) of mid to dark grey/brown silty sand with occasional stones and flecks of charcoal overlying a central element (0398) comprising dark grey silty sand with frequent small stones and charcoal flecks of charcoal and pieces of fired clay.



Plate 35. Late Iron Age/Early Roman pit 0355; from SE, 1.00m and 0.5m scales



Plate 36. Late Iron age pit 0401; from SW, 0.30m scale

At the base of the sequence was a third component (*0400*) that comprised a light-mid grey/brown friable/softy silty sand containing moderate stone small stones. Of particular note was the human cranium (*0399*) located towards the bottom of the pit at the interface between fill layers *0398* and *0400* (Plate 36.). The rest of the finds assemblage comprised ten sherds of later Iron Age pottery along with one hundred and five pieces of fired clay, the vast majority from layer *0398*, six struck flints, fifty-three fragments of animal bone and heat-altered flint and stone.

Pit *0414* was oval in shape, measuring 1.04m by 0.65m, had a depth of 0.36m and moderately sloping sides to a gently rounded base (Plate 37.). Single fill (*0415*) comprised dark grey/brown very silty sand with occasional charcoal flecks and small lumps. Of particular note, was a concentration of pottery sherds and pieces of triangular loomweight (SF's *1034* and *1035*), visible projecting from the section in Plate 37. In total, there were one hundred and forty-five sherds of almost exclusively later Iron Age pottery (total weight c.3.8 kilograms), along with thirty-seven small pieces of fired clay, some possibly fragments of loomweight, eleven struck flints, four tiny fragments of animal bone and heat-altered flint/stone.

Pit *2191* was a slightly irregular rectangle in shape, measuring c.2.35 by c.1.45m, had a depth of 1.50m with asymmetrically sloping sides, shouldered to the south-west, and a rounded base (Plate 38.). The stratified fill was recorded as four separate components (*2192* - *2195*); the uppermost of which (*2195*) comprised dark grey/brown firm clayey silt with moderate small/medium and occasional large stones, particularly concentrated at the base, and charcoal flecks. Below *2195* was layer *2194* of mid grey/brown silty sand with occasional small stones and occasional charcoal flecks which, in turn, overlay *2193* comprising mid grey/brown silty sand with moderate small to large stones. Finally, there was a basal element (*2192*) of sterile dark grey/brown silty sand with only very occasional small stones. The finds assemblage from the three upper fill components included two hundred and twelve sherds of mixed pottery that was dominated by indeterminate Roman material that could be said to suggest a post-conquest date and not ruling out use continuing on into the 2nd century. Other finds included twenty-six pieces of fired clay, fifty-two struck flints, one hundred and one fragments of animal bone, two pieces of Roman CBM and an iron nail.



Plate 37. Late Iron Age/Early Roman pit 0414; from SW, 0.5m scale



Plate 38. Late Iron Age/Early Roman pit 2191; from WNW, 1.00m scale

Pit 2250 was sub-circular, c.2.80m in diameter, c.0.86m deep with vertical sides to a flat base (Plate 39.). The stratified fill (variously numbered 2268 – 2275, 2282 – 2285, 2290 – 2294, 2326 – 2349, 2473) comprised of light to dark brown very silty sand with occasional small to large stones. Considering the size of the feature, the finds assemblage was relatively small; a total of only twenty-seven sherds of pottery were recovered exhibiting a range of dates with the latest in the Late Iron Age. Other finds were limited to one hundred and thirty-eight struck flints and heat-altered flint/stone. No obvious function could be attributed to this feature.

Pit 2322 was oval in shape, essentially trough-like, measuring 2.20m by a maximum of 1.00m, 0.44m deep with steeply sloping, although locally lipped, sides to a flat base (Plate 40.). Given its location within the group of slot/gully features towards the eastern side of the site, and its juxtaposition to a similarly aligned feature (2324) immediately to the north, it can be considered to be part of this complex. It, along with 2324, either being delimited by the more extensive slots/gullies or, themselves, forming an integral part of this group of boundary features. The single fill (2323) was described as remarkably homogenous dark grey brown silty sand with moderate small and occasional larger stones, a description that was repeated for other similar features in the group, including adjacent pit 2324. The finds assemblage included a significant quantity of pottery, a total of seventy-six sherds with a bias towards unspecified Roman material, but also including middle and later Iron Age sherds. While a 1st century date is most likely, similarly to other features with these mixed assemblages, a slightly later date cannot be ruled. Also present were four small pieces of fired clay, eleven struck flints, three fragments of animal bone and heat-altered flint/stone.

Pit 2424 was circular, c.1.50m in diameter, 0.64m deep, with steeply sloping sides to a slightly domed base (Plate 41.). Two very distinctly different fills were noted (2425 and 2440), separated by a well-defined interface. On the western side of the feature the interface was vertical, less so to the east and the base was uneven. This scenario did not appear to represent what could be expected from normal backfilling tips and subsequent subsidence. It was suggested at the time of excavation that the feature may have been lined, probably with material that degraded without trace in the archaeological record.



Plate 39. Late Iron Age pit 2250; from N, 1.00m scale



Plate 40. Late Iron Age/Early Roman pit 2322; from SW, 0.40m and 1.00m scales



Plate 41. Late Iron Age/Early Roman pit 2424; from S, 1.00m scale



Plate 42. Late Iron pit 2665; from E, 1.00m scale

The outer/basal fill (2440) comprised almost sterile, relatively homogenous orange brown slightly silty sand with moderate small stones; the only finds recovered from this component were a single sherd of indeterminate Roman pottery, a single piece of fired clay, two struck flints, five fragments of animal bone and heat-altered flint/stone. In contrast, the upper central fill (2425) comprised dark grey brown very silty, almost clayey sand with moderate charcoal flecks, small stones and fired clay, darker and with more clay content towards the base. A significant assemblage of finds was recovered from this fill including two hundred and seventy-one sherds of pottery weighing c.1.7 kilograms. While mixed with later Iron Age material, the assemblage was dominated by earlier Roman and indeterminate Roman sherds, again favouring a 1st century date, but could encroach into the 2nd century. Other finds included five hundred and ninety-eight pieces of fired clay, three struck flints, one-hundred and ninety-two fragments of animal bone and heat-altered flint/stone. In addition, there were eight small finds; an iron nail (SF 1111), a copper alloy chain (SF 1112), two possible crucible fragments (SF's 1110 and 1126), two pieces of worked stone (SF's 1127 and 1178), a flint hammerstone (1168) and a fragment of a Hod Hill type brooch of mid-1st century date (SF 1125). Of particular note is the copper alloy chain (see SF 1112 below) which has been identified as probably part of the suspension device for a lantern and is a high-status object.

Pit 2665 was oval in shape, measuring 1.52m by 0.80m, with a depth of 0.30m and a rounded profile (Plate 42.). Stratigraphically, it cut an undated pit (2666) that contained a significant quantity of heat-altered flint. Three fills were recorded; an upper component (3102) of mid to dark grey/brown silty sand with moderate small stones, occasional charcoal flecks and very occasional small chalk nodules that overlay a discrete layer of fired clay (2704) up to 0.20m thick. The clay included some surfaces, but these were clearly not *in-situ* suggesting that this was a dump of material from an oven or similar structure. Below the clay there was a basal deposit (3101) of mid to dark grey/brown silty sand with moderate small to medium stones and occasional charcoal flecks. In the eastern side of the feature, the three fills were all excavated together as 2655. The finds assemblage included sixty-three sherds of later Iron Age pottery along with eighty-seven pieces of fired clay, probably associated with layer 2704 and nine struck flints. Also present were seventy-six fragments of animal bone, including some possibly articulated material (3103) subsequently identified as cattle ribs, vertebrae and a foot bone. Also present were two pieces of sawn antler recorded as small finds (see below SF's 1154 and 1155 and Plate 43.).



Plate 43. Late Iron Age pit 2665, SF's 1154 and 1155; from above, 0.30 scale



Plate 44. Late Iron Age/Early Roman pit 2701; from E, 1.00m scale

Pit 2701 was sub-circular with a diameter of c.0.48m, had depth of 0.24m and steeply sloping sides to a flat base (Plate 44.). Two fills discrete fills were recorded; a basal component (2703) comprising mid orange/brown silty sand with occasional small stones and an upper central element (2702) of mid greyish brown silty sand with occasional to moderate small stones and charcoal flecks. The artefactual assemblage was limited to two small sherds of mid to later Iron Age pottery, along with a large fragment of Hertfordshire Pudding stone (SF 1143) that formed approximately half of the upper stone of a quern (see below).

Pit 3006 was sub-circular with a diameter of approximately 2.40m, had a depth of 1.00m with steeply sloping sides to a flat base (Plate 45.). The stratified fill (variously 3007, 3016, 3018, 3022 – 3024, 3031) comprised principally of mid to dark brown silty sand with a moderate quantity of small to cobble-sized stones and charcoal flecks. Some slumping was present from the pit sides. The artefactual assemblage included one thousand, one hundred and one sherds of pottery with a weight of c.7.7 kilograms, the second largest quantity from a single feature on the site. The assemblage was overwhelmingly of middle to later Iron Age in date, but there were occasional sherds with more Romanised fabrics and some earlier, presumably residual material. Other finds included nine hundred and sixty-two pieces of fired clay, fifty-six struck flints and thirty-four small fragments of animal bone. In addition, there were fifteen small finds (see below); of these, five were parts of triangular fired clay loomweights (SF's 1185 - 1189), five iron objects, four knives (SF's 1147, 1148, 1150, 1151) and a nail (1149), three copper alloy vessel fragments (SF's 1157, 1160, 1161), a fragment of a melted copper alloy brooch (SF 1158) and a ceramic bead (SF 1159).

Pit 3836 was sub-circular, c.0.80m in diameter, had a depth of 0.18m and a rounded profile. A central fill 3837, comprising mid to dark greyish brown silty sand with abundant heat-altered stone, the vast majority of which was sandstone, and occasional charcoal flecks, overlay a formal lining of stiff green clay (Plate 46.). Two sherds of later Iron age pottery were recovered, along with one hundred and thirty-four small fragments of fired clay. The feature was similar in character to undated examples, 3047 and 3303, (Plates 19 and 20) and the Middle Iron Age pit 3889 (Plate 13), suggesting that this type of feature had an extended currency within the Iron Age. In this example, however, there had clearly been a deliberate selection of the stone-type used.



Plate 45. Late Iron Age pit 3006; from SE, 1.00m and 2.00m scales



Plate 46. Late Iron Age pit 3836; from S, 0.50m scale

Pit 4025 was oval in shape, measuring 2.00m by 1.66m, 1.20m deep, with steeply sloping sides, undercut to the west, with a gently rounded base (Plate 47.). Two principal fills were recognised; an upper component (4026) comprising homogenous mid to dark brownish grey silty sand with occasional small stones overlying a basal fill (4098) comprising pale greyish yellow silty sand with darker silty sand patches and occasional charcoal flecks. The artefactual assemblage included thirty-one sherds of pottery, mostly of later Iron Age date, but also including more Romanised material. Other finds comprised four pieces of fired clay, three struck flints, two pieces of metalworking waste and heat-altered flint/stone.

Pit 4063 was sub-circular, c.1.70m in diameter, 1.00m deep with near vertical sides to a flat base (Plate 48.). Two principal fills were recognised (4064 and 4071), although there were hints of further stratigraphy, particularly within the basal component. Upper fill 4064 comprised predominantly dark grey/brown silty sand with occasional to moderate small stones and charcoal flecks, some slumping towards the edges. Lower fill 4071 comprised relatively homogenous pale to mid brown silty sand with occasional small stones, charcoal flecks and lenses of dark grey silty sand locally. The artefactual assemblage comprised three hundred and sixty-eight sherds of later Iron Age pottery, the vast majority from the darker upper fill 4064. Other finds included twenty-one pieces of fired clay, thirteen struck flints, twenty-four fragments of animal bone and heat-altered flint/stone.

Pit 4230 was rectangular, measuring 2.60m by 1.60m, 0.36m deep with steeply sloping, locally stepped, sides to a flat base (Plate 49.). Two distinct fills were recorded (4231, 4232), the lower of which (4232) appeared to occupy a discrete regular-shaped deepening in the base of the feature. Upper fill 4231 comprised mid brown silty sand with occasional to moderate small to medium-sized stones while the basal component, 4232, very dark brown/grey almost black silty sand with occasional small to medium-sized stones, occasional to moderate large charcoal fragments and a few small flecks. Some *in-situ* burning, although not intense, was evidenced by heat-reddening in the base of the feature. The artefactual assemblage included two sherds of Iron Age pottery, one of which was later Iron age in date, along with twenty-five struck flints, three pieces of metalworking waste and heat-altered flint and stone.



Plate 47. Late Iron Age/Early Roman pit 4025; from S, 1.00m and 2.00m scales



Plate 48. Late Iron Age pit 4063; from S, 1.00m scales



Plate 49. Late Iron Age pit 4230; from SSW, 0.30m scale

Roman (c.E. 2nd century – E.4th century)

Eight features described as pits contained indisputable evidence, principally pottery, indicating that activity on the site continued, albeit at a much-reduced level, into the later 3rd and possibly the beginning of the 4th century, although the evidence for this is sparse (Table 5). The features were divided between two small clusters; three in the north-east corner of the site and five halfway down its eastern edge (Fig. 8). The features described in the text are numbered on Figure 8 and presented as Plates 50 - 53. In general terms, the pits were all relatively substantial features in comparison to many of the later Iron Age/Early Roman examples and tended to have dark coloured fills; this is highlighted in Plate 50 which shows four of the eastern pit group, 0253, 0255, 0637 and 0640. Of particular note, were pits 0637 and 2020, the former from the eastern group and the latter from that in the north-east corner of the site.

Pit 0637 formed part of the tight five-feature cluster halfway down the eastern edge of the site (Fig. 8, Plate 50.). It was rectangular, with rounded corners, measuring 1.52m by 1.24m, had a depth of 0.56m with steeply sloping sides to an uneven, stepped base (Plate 51.).

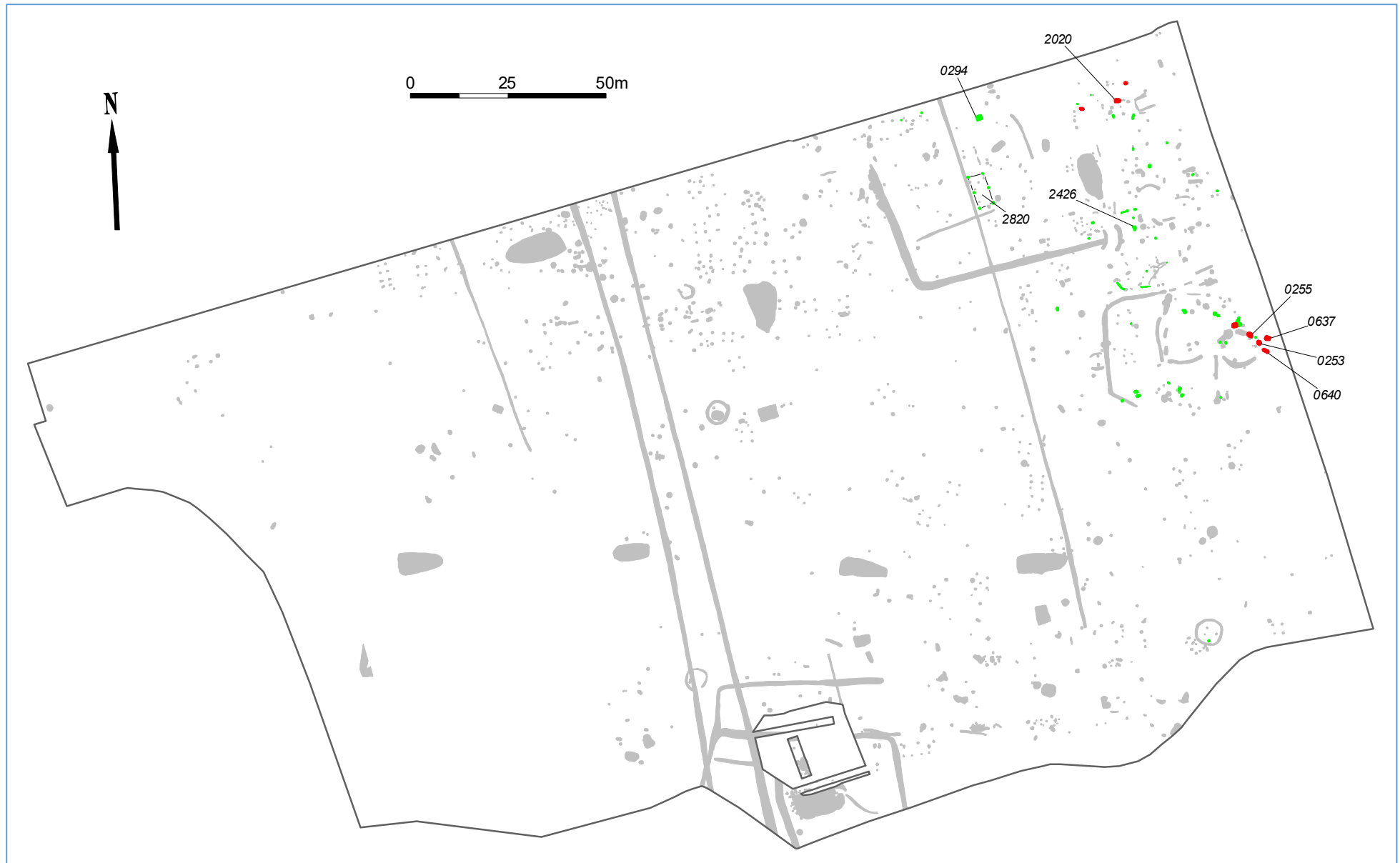


Figure 8. Plan of features of Roman (red) and Unspecified Roman (green) date

The single fill (0638), comprised dark brown/grey silty sand with lenses of pale yellow sand slump around the edges and a mid to dark brown/grey silty sand lens towards the base. There were occasional small pebbles, moderate medium to large cobbles, fired clay flecks and heat-altered flint/stone. The finds assemblage included four hundred and thirteen sherds of pottery weighing c.4.4 kilograms, although a near complete mortarium (0639, Plate 52.) itself accounted for c.1.4 kilograms. The assemblage was overwhelmingly described as unspecified Roman, but there were occasional sherds, including the mortarium, which suggested a 2nd, or even early 3rd century date. Other finds included two hundred and fifty-five pieces of fired clay, five struck flints, two hundred and ninety-five fragments of animal bone and heat-altered flint/stone.

Pit 2020 was part of the small three-feature cluster in north-east corner of the site (Fig. 8). It was oval in shape, measuring 1.80m by 1.25m, had a depth 1.30m with shouldered, marginally undercut edges to an angled base (Plate 53.). Four distinct fill components were recorded; uppermost fill 2024 was a shallow deposit grading into 2023, both comprising mid-dark grey/black firm silty clay containing moderate amounts of small and medium sized stones, occasional flecks of chalk, fired clay and charcoal flecks. In turn, layer 2023 overlay 2022 that comprised mid brown/grey silty, almost clayey, sand with occasional small and medium sized stones. Basal fill 2021 comprised mid grey/brown firm silty sand containing very few inclusions.

The finds included one thousand one hundred and twenty-four sherds of pottery, weighing in excess of 10 kilograms, the largest ceramic assemblage from one individual feature on the site. The material was again overwhelmingly described as unspecified Roman, but there were a few sherds that suggested a *terminus post quem* of the mid-2nd century, with a single sherd possibly even as late as the 4th century in date. Other finds included two hundred and six pieces of fired clay, thirteen struck flints, three hundred and fifty-one fragments of animal bone and heat-altered flint/stone.

Roman unspecified date

A total of fifty-three features were attributed a non-specific Roman date (Table 5), based primarily on the presence of exclusively Roman fabrics in their ceramic assemblages, with very little or no diagnostically Iron Age material. However, as previously stated, this material could still be consistent with an earlier Roman date as it is indistinguishable from the pottery found in the mixed later Iron Age/Earlier Roman assemblages.



Plate 50. Roman pits 0253, 0255, 0637, 0640; from NE, 1.00m scales



Plate 51. Roman pit 0637; from N, 1.00m and 0.50m scales



Plate 52. Roman pit 0637, mortarium; from N, 0.30m scale



Plate 53. Roman pit 2020; from S, 1.00m scale

Its separation into a discrete, but broader, phase is based simply on this lack of diagnostic Iron Age and later Roman finds which leads to additional uncertainty in regard to its date.

The features, forty-five pits/post-holes, two slots/gullies and a six-post structure, were concentrated in the north-east corner of the site, an apparent contraction of the area occupied during the Iron Age and earlier Roman phases (Fig. 8).

Six-post structure 2820 (post-holes 2797/3139, 2803, 2805, 2812, 2816, 2818) was located towards the north-east corner of the site, in the angle formed by the junction of undated, but probably post-medieval, ditches 2763 and 2766 (Fig. 8). However, even if the date for the ditch was unknown, the juxtaposition would clearly have been no more than fortuitous, as the post-holes were very close to the ditches and, given that they were probably internal to the structure, it would have been impossible for them to have functioned contemporaneously. Both spatially and in terms of their similar alignment, it is possible that the structure relates more to the Late Iron Age/Early Roman ditches forming the L-shaped arrangement (0052 and 0152) to the south and west (Fig. 7). While the six features attributed directly to the structure were distinctive and clearly formed a discrete entity, there were other features in the vicinity which, arguably, could be related, particularly where the line of the eastern side of 2820, if projected to the north, appeared to be maintained by a series of small post-holes and a slot.

The structure itself was markedly different to the Iron Age/earlier Roman four and six-post-structures. The area defined by the post-holes measured c.4.50m by c.9.00m, a considerable upscaling in size and if the post-holes were internal to its overall footprint, it could represent a significant building, possibly an aisled structure (Plate 54.). The individual post-holes were sub-circular with diameters varying between 0.50m (2797/3139) and 0.74m (2816), with depths of between 0.28m (2805) and 0.40m (2787/3139). The fills tended to comprise homogenous mid brown very silty almost clayey sand with occasional small stones and just a hint of darkening centrally in some, for example 2018 (Plate 55.). There was only a very limited artefactual assemblage recovered from the post-hole fills, hence the attribution of the structure to this broadly dated phase. Two sherds of unspecified Roman pottery were recovered from fill 2819 in post-hole 2818 with a further sherd from fill 2804 in post-hole 2803. The only other find was a single piece of fired clay from fill 2817 in post-hole 2816.



Plate 54. Structure 2820; from NNW, 1.00m and 2.00m scales



Plate 55. Structure 2820, post-hole 2818; from NNW, 0.50m scale



Plate 56. Pit 0294; from ENE, 1.00m scale



Plate 57. Pit 2426; from W, 1.00m scale

The remaining pits, post-holes and slots were generally small and unremarkable with limited finds assemblages. Only two features have been selected at this stage for further discussion; pits 0294 and 2426 that are numbers on Figure 8 and are presented as Plates 56 and 57.

Pit 0294 was a very sharply defined rectangle in shape, measuring 1.58m by 1.34m, had a maximum depth of 0.24m with steeply sloping sides to an angled base (Plate 56.). The fill (0295) comprised relatively homogenous mid brown silty slightly clayey sand with a localised patch of yellow clay and a concentration of small stones. The finds assemblage was limited to two small sherds of undiagnostic Roman pottery, nine pieces of fired clay, two struck flints, five iron nails and heat-altered stone.

Pit 2426 was oval in shape, measuring 1.24m by 1.05m, had a depth of 0.26m with a rounded profile (Plate 57.). Two fills were recorded; an upper component (2427) comprising very dark brown/grey slightly clayey silty sand with occasional charcoal and fired clay flecks that graded into a basal layer (2428) of dark greyish brown silty sand with occasional stones. Two sherds of unspecified date Roman pottery were recovered from the upper fill along with thirty-four pieces of fired clay, five fragments of animal bone and heat-altered flint/stone. Finds from the basal layer were limited to a small quantity of heat-altered flint/stone and a flint hammerstone (SF 1124) that can be seen in Plate 57.

4.4 Medieval

Features attributed a broad medieval date are detailed in Table 6 along with a group of post-holes, possibly representing a structure, which have been assigned to a ?medieval phase. The locations of these features are shown on Figure 9 along with those of post-medieval date. The dating was based on a combination of artefactual evidence, principally ceramics, stratigraphy and the spatial relationships between features forming a part of discrete structures. At the analysis stage it may be possible to define sub-phases within the broader medieval period.

The medieval features were concentrated in a tightly defined area adjacent to and continuing under the south side of the site (Fig. 9). These were first identified during the trenched evaluation (Boulter 2012) and further defined in the perimeter bund strip.

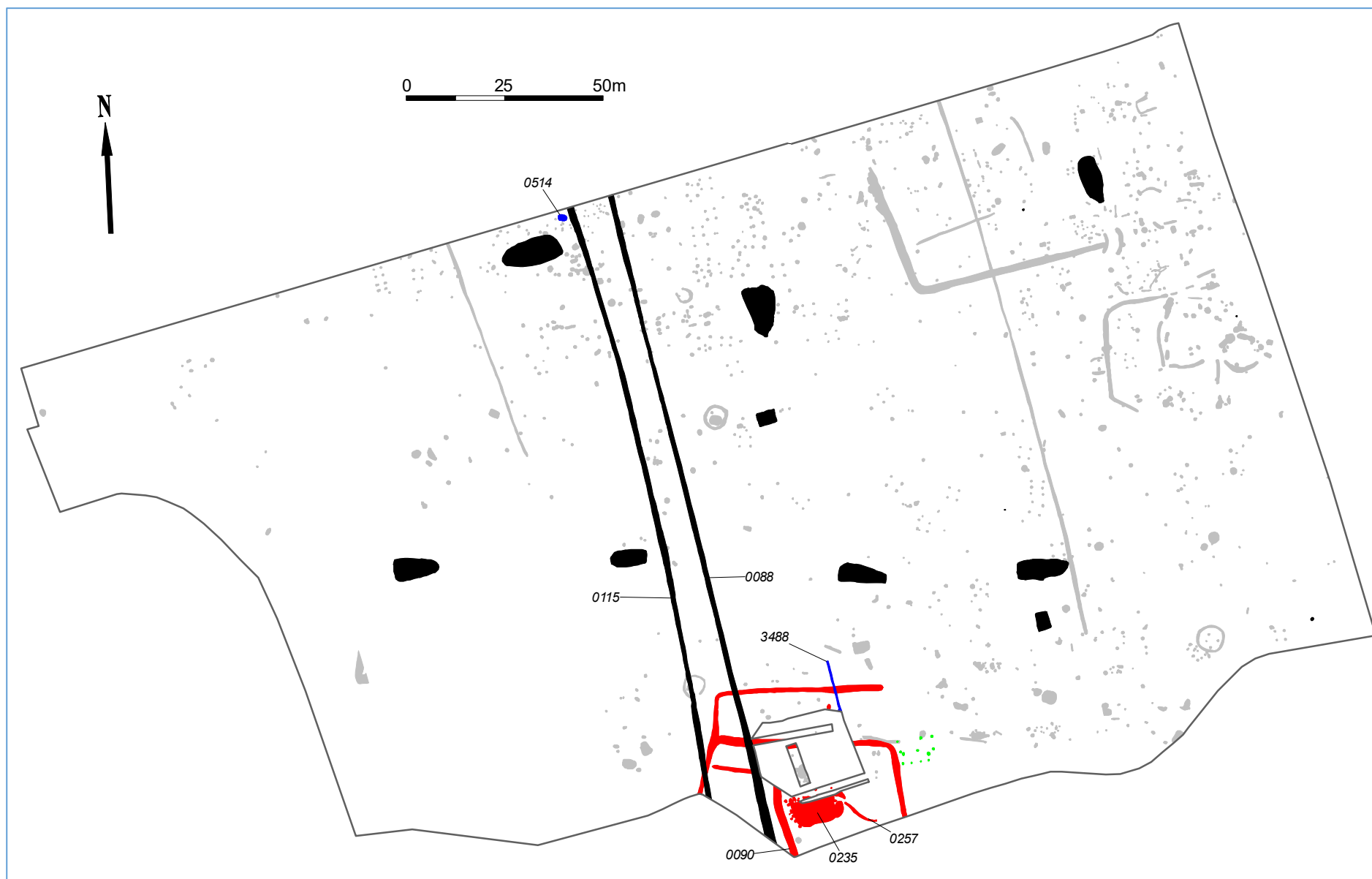


Figure 9. Plan of features of medieval (red), ?medieval (green), modern (black) and unspecified post-medieval (blue)

Period	Site phase	Date range	Features
Medieval Total 8 features and 1 multi- context structure	Phase IV	c.1066 – 1480	Building/structure: 0235 (Total 1) Ditches: 0090, 0163/1000, 0193, 0257, 0762, 3404, 3960 (Total 8)
?Medieval Total 12 features	Phase ?IV	c.1066 – 1480	Post-holes: 0149/3480, 3478, 3482, 3484, 3493, 3495, 3499, 3501, 3503, 3507, 3509, 3511 (Total 12)

Table 6. Details of medieval and possible medieval features

Essentially, the medieval deposits were represented by eight ditches that together defined a series of small enclosures. While these were clearly broadly contemporary, some stratigraphy was recorded and there would have been other relationships between individual ditch components which were not encountered in the stripped area. The focus of these enclosures was a large rectangular incised feature that was associated with post-holes, the majority of which appeared to be close to its edges. In addition to the information gleaned from the evaluation trenching, manually excavated slots were excavated into the main body of the feature in order to assess what resources would be required to make a full record. Subsequently, given the location of the feature concentration adjacent to the edge of the site, in an area where access to the underlying mineral was complicated by the presence of clay overburden, it was agreed with the Archaeological Advisor to the MPA that an area of c.900 square metres, including the already exposed bund strip, would remain unexcavated. To that end, a layer of clean sand was spread over the exposed features uncovered in the bund strip before a layer of topsoil was introduced to bring it up to the previous level of the ground surface.

The individual enclosure ditches varied somewhat in character, but typically did not exceed 1.20m in width with depths of up to 0.80m. Profiles ranged from relatively rounded to open V-shaped, the former being the norm where the adjacent naturally occurring subsoil was sandy, while the latter seemed to be the case where the subsoil comprised stiff clay, for example ditch 0090 (Fig. 8 and Plate 58.). Similarly, the fills of the ditch varied, again depending on the character of the adjacent subsoil. Where an intervening layer of colluvial material was present between the topsoil and underlying subsoil, these ditches could be seen to cut at least partway into this layer; an indication that the colluvial process was already underway when the ditches were originally excavated.



Plate 58. Ditch 0090; from NNW, 1.00m scale



Plate 59. Building/structure 0235, test-trenches; from S, 2.00m scales

The artefactual assemblage recovered from the excavated ditch fills was not huge, but was larger than could be expected from normal agricultural field boundary ditches. A combined total of one hundred and forty-five sherds of medieval pottery were recovered from the various excavated sections along with nineteen pieces of fired clay, eleven struck flints, twenty-four fragments of animal bone and a few pieces of heat-altered flint/stone. There were also three small finds; part of an iron arrowhead of medieval type (SF 1196), a copper alloy strip (1029) and an iron nail (1203). Given that the assemblage of material recovered from building/structure 0235 was similar in date it seems reasonable to assume that both it and the ditches were contemporary and related.

The complex of features, collectively 0235, which appeared to have structural elements, were first identified in Trench 18 of the archaeological evaluation as a cluster of post-holes and an associated layer (Boulter 2012, Fig. 14). During the subsequent bund soil-strip around the perimeter of the site, a large area of dark soil was uncovered (Fig. 9 and Plate 59.). While not necessarily representing a single feature, the dark area defined a relatively regular, round-cornered rectangle measuring c.14.00m east-north-east to west-south-west and c.8.50m from north-north-west to south-south-east. The western end was more regular than the east and was associated with a line of post-holes along with the cluster first recorded in the evaluation (Fig. 9). One of the medieval ditches, 0257, butt-ended close to the eastern side of the structure, running away to the south-east before petering out close to the edge of the site.

Two 1.00m wide, L-shaped, trenches were manually excavated into the body of the feature (Plate 59.). It was revealed that the flat base of the thin layer of material (0132) recorded in the evaluation represented the bottom of the large feature which extended back to the south, effectively terraced into the natural slope to depth of c.0.75m at the southern side of the feature. This was particularly clear in the westernmost of the two trenches (Plate 60.), where a sondage was excavated to its full depth against the edge. At this juncture, the feature was filled with a series of predominantly horizontal layers which only sloped up as they approached the edge of the cut. The easternmost trench was stratigraphically more complex (Plate 61.), with cutting features and what appeared to be naturally occurring clay with flint cobbles occurring at a higher level. The evaluation work carried out was insufficient to provide a full interpretation of the structure.



Plate 60. Building/structure 0235, W trench; from NE, 2.00m scales



Plate 61. Building/structure 0235, E trench; from NW, 2.00m scale

A significant assemblage of finds, particularly pottery, was recovered from both the main building/structure cut and associated post-holes and pits. A total of six hundred and thirty-nine sherds came from the main body of the building/structure, a further forty-five from associated post-holes and seventy-three from a feature (0764) described as a pit. In addition, the overall assemblage included one hundred and thirty-one fragments of animal bone, twenty-three pieces of fired clay, eleven, presumably residual struck flints and heat-altered flint/stone. A medieval iron arrowhead (SF 1006) was recovered from one of the post-holes, while unstratified small finds found in the immediate vicinity included another medieval Iron Arrowhead (SF 1003) and an iron axe head (SF 1004) that was also consistent with a medieval date. Another medieval small find, a copper alloy buckle (SF 1201) was an unstratified surface find recovered from further to the north on the site. The pottery had a possible currency ranging from the 11th to 14th, possibly even early 15th, centuries, although spotdating tends to narrow the period of activity associated with the building/structure and its surrounding ditches to the 13th and 14th centuries (see below).

The character and function of the building/structure is hard to determine, but the presence of the relatively large pottery assemblage suggests something other than a purely agricultural use, while the three iron arrowheads and axe head may also be significant.

Immediately to the east of the medieval complex were a discrete group of twelve post-holes which exhibited a formal, albeit not entirely regular, arrangement (green on Fig. 9). Given their juxtaposition to the medieval complex, it is possible that they were broadly contemporary and have, on that basis, been included at this point in the assessment. However, dating evidence was sparse, limited to a single undatable fragment of CBM, four struck flints and heat-altered flint/stone, although the features were markedly different from those of Roman or earlier date and a later date seems probable. The post-holes demarked an approximately rectangular area measuring 6.50m by 9.30m with the western and southern sides the most convincing. The post-holes themselves were all circular or sub-circular in shape, varying between 0.25m (3482) and 0.80m (3480) in diameter with depths between 0.12m (3482) and 0.56m (3484). Fills generally comprised relatively homogenous, sometimes loose, mid brown silty sand with a very precise interface with the natural subsoil; post-pipes were occasionally present (e.g. 3511).

4.5 Post-medieval

The post-medieval features are detailed in Table 7 with their locations shown on Figure 9. They are separated into two groups; those of 20th century and later date (modern), presented in black on Figure 9, and those of unspecified post-medieval date, blue on Figure 9.

Period	Site phase	Date range	Features
Total 30 features	Phase V.d.	Post-medieval; c.20th century and later	Ditches: 0088, 0115 (Total 2) Boreholes: four unnumbered (Total 4) Test-pits: 0213, 0233, 2469, 3526, 3534, 3538, 3779, 4118, 4324 (Total 9)
Total 2 features	Phase V.0	Post-medieval; unspecified date	Pit: 0514 (Total 1) Ditches: 3488 (Total 1)

Table 7. Post-medieval features

The two parallel ditches (0088 and 0115) running approximately north to south through the centre of the site were filled in during the second half of the 20th century and relate to a substantial boundary clearly shown on the First Edition as a line of trees (Fig. 9). They also equate closely to a boundary extant on an 18th century estate map, although scaling between earlier and later maps is difficult and the precise correlation between the two is open to question.

Four geotechnical boreholes were encountered and their location noted on the site plan.

There were also nine large geotechnical test-pits recorded on the site; seven excavated twenty/thirty years ago, while two smaller, more regular shaped, pits were excavated in conjunction with the archaeological evaluation (Boulter 2012).

Two features were considered to be post-medieval, but were not closely datable (blue on Figure 9.). Pit 0514, located close to the northern edge of the site, contained undiagnostic post-medieval CBM, while a short length of north-north-west to south-south-east orientated ditch (3488) was recorded towards the southern end of the site. The ditch clearly cut to the base of the topsoil and cut one of the medieval ditches. It almost certainly continued on to the north, but at that juncture was entirely cut into the subsoil and, as a consequence, was removed during soil-stripping. The ditch was

similarly aligned to the boundaries shown on the early maps, but direct correlation was not attempted at this time, but could be revisited during analysis.

4.6 Undated

The undated features include are listed in Table 8 and with their locations shown on Figure 10.

Period	Site phase	Date range	Features
Undated	Phase 0	Undated and naturally derived features	Ditches and slots: 0520, 0726, 2002, 2461, 2741, 2763, 2766 (Total 7) Hearth: 0154 (Total 1) Pits/post-holes: 0046, 0056, 0066, 0068, 0070, 0074, 0082, 0084, 0086, 0092, 0096, 0098, 0100, 0104, 0108, 0123, 0147, 0165, 0187, 0191, 0197, 0203, 0207, 0209, 0211, 0215, 0217, 0221, 0225, 0229, 0231, 0264, 0269, 0271, 0275, 0277, 0279, 0281, 0283, 0285, 0290, 0298, 0300, 0302, 0304, 0308, 0310, 0312, 0324, 0326, 0335, 0341, 0343, 0346, 0353, 0385, 0389, 0391, 0392, 0395, 0420, 0422, 0424, 0426, 0428, 0430, 0432, 0434, 0436, 0438, 0440, 0442, 0444, 0446, 0448, 0452, 0454, 0456, 0458, 0460, 0462, 0464, 0466, 0468, 0470, 0472, 0474, 0477, 0479, 0481, 0483, 0491, 0493, 0495, 0501, 0502, 0504, 0507, 0509, 0511, 0513, 0516, 0518, 0524, 0526, 0527, 0540, 0572, 0574, 0578, 0580, 0585, 0587, 0591, 0606, 0614, 0618, 0623, 0628, 0631, 0633, 0635, 0658, 0665, 0668, 0673, 0678, 0680, 0682, 0684, 0687, 0688, 0693, 0695, 0700, 0709, 0711, 0721, 0728, 0730, 0734, 0736, 0744, 0746, 0752, 0754, 0768, 0785, 0792, 0806, 0870, 0874, 0959, 0962, 0964, 0966, 0982, 0984, 0986, 0988, 0990, 0992, 0994, 0996, 0998, 2006, 2025, 2027, 2029, 2031, 2035, 2037, 2041, 2050, 2052, 2054, 2056, 2060, 2075, 2077, 2084, 2120, 2124, 2128, 2132, 2139, 2162, 2187, 2205, 2207, 2211, 2230, 2232, 2234, 2236, 2238, 2240, 2242, 2244, 2251, 2253, 2255, 2278, 2280, 2286, 2300, 2303, 2307, 2313, 2366, 2382, 2387, 2404, 2407, 2418, 2421, 2441, 2452, 2456, 2464, 2485, 2489, 2491, 2493, 2497, 2499, 2501, 2503, 2505, 2507, 2513, 2517, 2519, 2521, 2525, 2527, 2535, 2542, 2548, 2564, 2572, 2577, 2591, 2594, 2606, 2613, 2625, 2631, 2633, 2635, 2648, 2652, 2660, 2662, 2669, 2671, 2675, 2677, 2679, 2681, 2687, 2689, 2691, 2693, 2695, 2697, 2699, 2705, 2707, 2709, 2713, 2715, 2717, 2725, 2727, 2729, 2731, 2733, 2735, 2747, 2749, 2751, 2753, 2755, 2757, 2759, 2775, 2777, 2779, 2801, 2809, 2814, 2834, 2838, 2842, 2852, 2855, 2857, 2859, 2862, 2877, 2879, 2881, 2883, 2886, 2891, 2893, 2897, 2899, 2905, 2909, 2911, 2914, 2928, 2945, 2948, 2950, 2953, 2998, 3000, 3002, 3004, 3009, 3011, 3025, 3027, 3029, 3032, 3034, 3043, 3045, 3077, 3099, 3112, 3114, 3116, 3120, 3122, 3127, 3130, 3134, 3136, 3141, 3143, 3145, 3147, 3149, 3151, 3153, 3189, 3204, 3206, 3210, 3212, 3217, 3219, 3224, 3226, 3228, 3230, 3236, 3239, 3241, 3243, 3245, 3247, 3249, 3251, 3253, 3255, 3257, 3259, 3261, 3263, 3265, 3280, 3282, 3293, 3299, 3310, 3312, 3353, 3355, 3357, 3368, 3370, 3372, 3376, 3378, 3380, 3382, 3384, 3388, 3394, 3396, 3400, 3406, 3418, 3420, 3422, 3430, 3432, 3443, 3463, 3486, 3505, 3513, 3517, 3519, 3524, 3530, 3532, 3536, 3542, 3560, 3562, 3624, 3633, 3639, 3642, 3658, 3660, 3683, 3713, 3715, 3717, 3719, 3721, 3723, 3727, 3729, 3770, 3791, 3793, 3797, 3832, 3834, 3844, 3846, 3878, 3880, 3887, 3892, 3904, 3918, 3922, 3924, 3926, 3937, 3939, 3948, 3950, 3952, 3954, 3984, 3993, 3995, 3997, 4001, 4003, 4005, 4007, 4017, 4021, 4031, 4039, 4053, 4061, 4069, 4073, 4076, 4078, 4080, 4084, 4086, 4096, 4100, 4131, 4133, 4158, 4163, 4165, 4167, 4171, 4177, 4187, 4192, 4194, 4196, 4198, 4205, 4207, 4209, 4213, 4216, 4220, 4222, 4225, 4227, 4235, 4239, 4254, 4258, 4260, 4264, 4268, 4270, 4275, 4278, 4281, 4287, 4289, 4291, 4293, 4296, 4298, 4300, 4302, 4305, 4311, 4315, 4319, 4322 (Total 523) Layers: 0848, 0849, 0850, 0858, 2046/2047 (Total 5)
Total 536			
features			

Table 8. Undated features

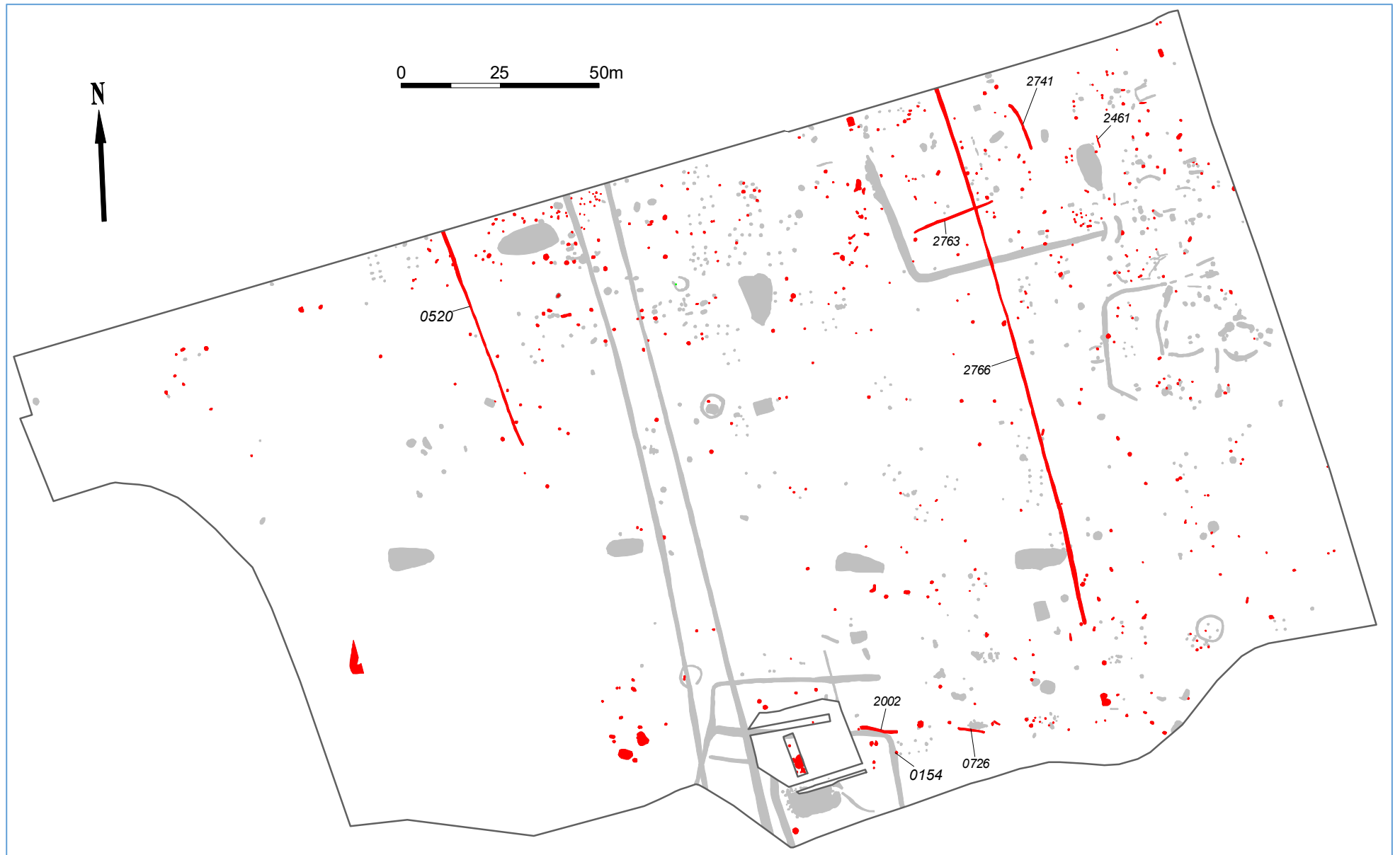


Figure 10. Plan of undated features

Essentially, the features assigned to this phase were those which could not be dated by artefactual, stratigraphic evidence or by their association with more securely dated features/structures. Included also, were features that are likely to have been naturally derived. The excavated fills were not always entirely sterile of artefacts, but the presence of very occasional pieces of heat-altered flint, animal bone, fired clay and even struck flints were not considered enough to include features in the unspecified prehistoric phase as these tiny assemblages may be residual or intrusive.

Figure 10 shows that the distribution of these features follows closely to that of the dated phases, suggesting that they almost certainly were generated within the timeframe of the overall activity on site; arguably with more relating to the later Iron Age/earlier Roman phase as this represents the period when activity appeared to be at its highest level. Very few features were identified on the heavy clay area towards the south-west side of the site.

Six features were described as ditches and one as a slot. The slot (2461) was an isolated feature with a length of only 3.00m, c.0.25m wide with a depth of c.0.15m, while two of the ditches, 0726 and 2002, were both east to west orientated and located towards the southern edge of the site, probably representing elements of the same shallow feature that had only survived locally. Ditch 2766 ran in a south-south-easterly direction for a distance of c.140m from the northern edge of the site, while similar ditch 0520 ran on similar orientation for a distance of c.57.00m, also from the northern edge of the site c.129.00m to the west. While remaining undated at this stage, ditch 2766 was seen from the surface to cut the later Iron Age/Roman ditch 0152 and also approximates to the line of a field boundary extant on the 18th century estate map. The remaining two ditches, 2741 and 2763, were c.12.50m and c.21.00m long respectively, the former aligned north-north-west to south-south-east, although curving slightly to the west, and the latter west-south-west to east-north-east. Both were shallow, not exceeding 0.15m in depth and a maximum of 0.60m wide and may originally have been more laterally persistent, but lost during machining. Ditch 2763 had an indeterminate relationship with ditch 2766.

Possible hearth 0154, comprising a discrete layer of heat-altered clay, was seen in the north side of evaluation Trench 18, c.0.20m above the naturally occurring subsoil either

within colluvial layer *0041* or possibly the upper fill of medieval ditch *0193*. It was not seen during the soil-strip.

The vast majority of the undated features, a total of five-hundred and twenty-three, were described simply as pits or post-holes. However, these descriptions covered a wide range of features with different morphologies and characteristics, their one similarity being that they could not realistically be assigned to a datable phase or period. Most of the features were small, with the larger ones often amorphous and irregular in shape and more likely to have been generated by natural processes.

The five undated contexts described as layers were effectively localised variations in the intervening colluvial material between the topsoil and the underlying naturally occurring subsoil.

Other than further spatial analysis of the ditches in relation to those recorded on the early maps, it is considered unlikely that further analysis will lead to the more secure dating of these features.

5 Quantification and assessment

5.1 Post-excavation review

The following post-excavation tasks have been completed for the stratigraphic, finds and palaeoenvironmental archive:

- Completion and checking of the primary paper and digital archive
- Preparation of Microsoft Access database of the stratigraphic archive
- Preparation of Microsoft Access database of the finds archive
- Cataloguing and archiving of digital images
- Preparation of provisional phasing (Tables 1 - 7 and plans, Figs. 3 - 10)
- Description/discussion of principal phases and features
- GPS survey data of site grid converted to MapInfo
- Digitisation of 1:100 scale plans and conversion to georeferenced MapInfo tables
- Preparation of scanned security copies of A1 and A3 section/plan sheets
- Processing (washing and marking), quantification and assessment of finds
- Processing and assessment of palaeoenvironmental samples
- Assessment of potential for analysis
- Preparation of UPD with table of required resources for analysis

5.2 Quantification of the stratigraphic archive

The stratigraphic archive is quantified in Table 9:

Type	Format	Site SEY 035
Context register sheets	A4 paper	91
Context recording sheets	A4 paper	1,469
Environmental sample register sheets	A4 paper	9
Small finds register	A4 paper	8
1:20 scale plan and section sheets	A3 plastic drafting film	191
1:100 scale site plans	A1 plastic drafting film	13
1:500 & 1:1000 scale site sketch plans and A1 plan sheet locations	A3 plastic drafting film	2
Site photo book	Hardback 155 x 110mm note book	2
Digital images	14mp .jpeg	2,632
Site survey/level book	Hardback 190 x 120mm note book	3

Table 9. Quantification of the stratigraphic archive

5.3 Quantification and assessment of the bulk finds archive

5.3.1 Introduction

Bulk find quantities are summarised in Table 10. The find categories in this table includes material from the 2011 trenched evaluation, that from the phased excavation of the site between 2013 and 2016 and finds gleaned from soil samples. The finds from the excavation phase soil samples are discussed together with the hand-collected bulk finds in the following sections of this report; the samples from the evaluation are included in the catalogues and will be discussed at the analysis stage of the project. A full catalogue of find categories is presented by context order in Appendix 4.1.

Finds Type	No.	Wt. (g)
Pottery	13,736	107,066
CBM	52	2,296
Post-medieval glass	3	405
Slag		37,000
Nails	13	57
Fired clay	11,441	39,924
Worked flint	4,056	60,785
Heat-altered flint		291,867
Heat-altered stone		212,106
Stone	37	4,821
Quern	215	3,907
Cremated Human Skeletal Remains		370
Animal bone	3,064	6,474
Shell	85	403

Table 10. Bulk finds quantities

5.3.2 Pottery

Introduction

A total of 13,736 sherds of pottery weighing 107,066 grams were recovered during the combined evaluation and excavation of the site. The material derived from 770 contexts, including forty-four soil samples. The material discussed below does not include soil-sample finds from the initial evaluation.

Table 11 presents the total ceramic assemblage quantified by sherd count and weight, divided into three major chronological periods. Almost half of the pottery by sherd count is prehistoric, followed closely by Roman pottery. Prehistoric and Roman pottery also

appear in similar weights, representing roughly 45% and 46% of the total assemblage respectively.

Chronological period	No.	% No.	Wt./g	%Wt./g
Prehistoric	6,785	49.4	48,592	45.4
Roman	5,932	43.2	49,227	46.0
Post Roman	1,019	7.4	9,247	8.6
Totals	13,736	100.0	107,066	100.0

Table 11. Total ceramic assemblage by chronological groups

Prehistoric pottery

There were 6,785 sherds of prehistoric pottery weighing 48,592 grams. The material derived from 613 contexts including thirty-eight soil samples.

Methodology

Prehistoric pottery was quantified by fabric groups identified through hand specimen examination, supplemented by the use of a x10 binocular microscope. Dates for the fabric groups were established based on a combination of features of the pottery, such as firing techniques, tempered inclusions, decoration and ceramic shapes. The total assemblage is listed by context order in Appendix 4.2.

Prehistoric fabrics were recorded using simplified abbreviations of the Guidelines for Analysis and Publication of the Prehistoric Ceramic Research Group (2010). Where possible, prehistoric vessel forms were identified according to typologies defined by Brudenell (2014, 193, table 4), and Brudenell & Hogan (2014, 212, table 3). In other cases, ceramic forms were described loosely (e.g. carinated bowl, jar, bulbous jar, etc.). Decorated prehistoric pottery was identified by following Gibson (2002), and some ceramic styles of the broader Iron Age were classified according to Cunliffe (2005).

Minimum numbers of vessels (ENVs) were estimated from rim sherds or sherds with distinct decoration, occasionally supplemented by base sherds when these were the only ones available in specific contexts. It must be clarified that ENVs are only estimates; therefore, for a better quantification of the material, estimated vessel equivalents (EVEs) were introduced alongside, with minimum numbers of estimated vessels (ENVs). EVEs were calculated based on rim sherds, and as prehistoric pottery tends to be handmade and deformed, the calculation were included only when the rim diameter of a sherd could be established.

Fabrics

The chronological borderline between prehistoric and Roman pottery is generally unclear. A major issue is that some prehistoric fabrics seem to extend as far as the Late Iron Age-Roman transition. In this report, the lower borderline for prehistoric pottery is set in the Late Iron Age and relates to handmade pottery, produced from fabrics that bear similarities with typical Middle Iron Age or earlier traditions (e.g. flint tempering). By contrast, Romanising wheel-finished or wheel-thrown vessels of the LIA-Roman transition are recorded under Roman pottery and are discussed in the following section.

Prehistoric pottery forms the majority of the ceramic assemblage from the site and is divided into nineteen fabrics. A summary of the prehistoric assemblage by fabric codes, including a short description of each fabric, is presented in Table 12. All fabrics are in alphabetical order and the table includes a column with the date ranges of each fabric. The large chronological span for some specific fabrics is because these are represented by small, undiagnostic and undecorated fragments, the exact date of which is unclear.

The most common prehistoric fabric is Q(VF). This fabric forms 53% of the prehistoric assemblage by sherd count or 57.7% by weight. Despite its prevalence, it is only six pit fills that produced pottery made from this fabric exceeding one kilogram: 0948, 3007, 3024, 2580, 4064 and 0415, which produced the largest amount. The earliest use of the fabric is placed during the Middle and Late Iron Age, encountered in the production of S-shaped jars; however, there are indications that this fabric continues well into the Late Iron Age and is used for the production of handmade vessels imitating Roman shapes.

In general, the pottery from the site indicates that the vast majority of the material dates to the first millennium BC, covering the period between the Late Bronze Age and the entire Iron Age. This material is characterised by fabrics F2, F2V, F3, Q(VF), GQV(F) and QSVF. It forms 76.5% of the assemblage by sherd count, or 79.6% by weight.

Fabric	Brief description of fabric	Fabric Date	No.	% No.	Wt./g	%Wt./g
BF	Abundant to common large and coarse particles of cracked flint with unevenly burnt surfaces in a medium sandy matrix	ENE0	168	2.5	1,419	2.9
BFQS	Common to moderate, large or medium-sized coarse particles of cracked flint with unevenly burnt surfaces, and moderate large rounded quartz grains in a medium sandy matrix	Preh (encountered across different periods)	43	0.6	315	0.6
F1	Common to moderate large and coarse flint in a coarse and often dense sandy matrix	E.Preh (NEO-BA)	493	7.3	3,333	6.9
F1QZ	Common to moderate large and coarse flint mixed with crushed quartzite, in a coarse sandy matrix	ENE0	1	0.0	18	0.0
F2	Abundant to common, medium to large coarse particles of flint mixed with finer angular grains, in a coarse to medium sandy matrix	LBA-EIA	632	9.3	3,946	8.1
F2G	Abundant to common, medium to large coarse particles of flint mixed with finer angular grains, and medium grog, in a medium sandy matrix	MBA-LBA	1	0.0	6	0.0
F2V	Abundant to common, medium to large coarse particles of flint mixed with finer angular grains, in a coarse to medium sandy matrix with organic temper	L.Preh (encountered across different IA periods)	224	3.3	1,217	2.5
F3	Moderate to sparse flint, primarily small and fine angular grains, in a dense and fine sandy matrix	MIA (mainly MIA but could also expand earlier or later)	561	8.3	4,299	8.8
FQ	Moderate coarse to medium, angular to sub-angular flint, mixed with large rounded grains of quartz sand (orange, yellow or opaque) in a dense and fine sandy matrix	E.Preh (LNE to broader BA)	219	3.2	1,145	2.4
FQZ(G)	Moderate coarse to medium, angular to sub-angular flint, mixed with sand forming a variety of sizes and angularity rates from plain grains to crushed quartzite pebbles, sometimes mixed with grog.	E.Preh, possibly from the later BA	8	0.1	96	0.2
GQ(F)	Medium soft and silty fabric with moderate coarse grog, occasionally tempered with moderate fine and angular flint	LNE-EBA to MBA	368	5.4	2,181	4.5
Q(VF)	Fine to medium sandy fabric with sparse to rear fine flint and/or fine organic temper	MIA-LIA, but mainly LIA	3,599	53.0	28,019	57.7
QCV	Fine to medium chalk and large coarse organic temper in a fine silty matrix	LNE to BA, but also possibly LIA	217	3.2	657	1.4
QGV(F)	Fine grog and organic temper, occasionally mixed with fine sub-rounded flint, in a dense sandy matrix	LIA but could also extend to e. Rom	31	0.5	184	0.4
QS	Large rounded to sub-rounded grains of quartz sand of various colours (opaque, orange, yellow) mixed in a dense fine sandy or silty matrix	BA	62	0.9	146	0.3
QSVF	Large rounded to sub-rounded grains of quartz sand of various colours (opaque, orange, yellow) mixed with coarse organic temper and moderate fine flint in a dense fine sandy matrix	LBA to later IA, unclear	145	2.1	1,016	2.1
SHQF	Common shell in a medium sandy matrix with moderate to sparse angular flint of various sizes	ENE0?	3	0.0	7	0.0
Unclear	Tiny chips from unclear prehistoric fabrics with non-identifiable characteristics	Preh (generally)		0.0	572	1.2
V	Sandy fabric with large and coarse pieces of straw	LIA?	10	0.1	16	0.0
Totals			6,785	100.0	48,592	100.0

Table 12. Quantification of prehistoric pottery by fabric group

The remaining material cannot be precisely dated and could relate to different periods. More specifically, fabrics dating between the Early Neolithic and the broader Bronze Age, such as BF, F1 and QS, form 10.7% of the prehistoric assemblage by sherd count or 10.1% by weight. Fabric FQ probably dates to the same broader period; however, its production is also likely to have expanded into the earlier phases of the Iron Age. During the evaluation of the site, pit fill 0059 produced Iron Age glass beads (Beveridge 2012, 74 - 5), which were found together with undecorated sherds made from fabric FQ; therefore, some variants of this fabric could date well into the Iron Age. Quite often, LBA-EIA pottery is associated with one long and continuous period of four centuries (e.g. Gibson 2002), which is characterised by undecorated forms with some small fabric variations (e.g. Brudenell 2012), similar to those noted in fabric FQ. Other fabrics from the site, such as BFQS and QCV usually characterise ceramic technologies of the LNE-EBA and broader Bronze Age respectively; however, in this specific assemblage both fabrics are encountered also in the production of later forms. More specifically, the former fabric is noted on LNE-EBA Grooved Ware, recovered from ditch fill 0779, and also on a MIA/LIA wide jar imitating a Roman 5.6 form, recovered from pit fill 4253. The latter fabric is also noted on possible Bronze Age Beaker of Food Vessel sherds from pit fills 0784 and 2362 and on later Iron Age Type A slack-shouldered jars from pit fills 3007 and 3016.

Five fabrics, F1QZ, F2G, FQZ(G), SGQF and V, appear in small and relatively insignificant quantities. The dates of these sherds must be treated with caution. Finally, 1.2% of the total prehistoric assemblage by weight consists of tiny fragments that could not be identified and are noted as broadly prehistoric.

Vessel numbers and shapes

According to the ENVs recorded in Appendix 4.2, the prehistoric assemblage contains a minimum of 348 different vessels; however, using the estimated vessel equivalents (EVEs), the vessel number drops down to 21.17 vessels. Even though the assemblage contains a large number of decorated Beakers, Carinated Bowls and possibly Collared Urns of early prehistoric date, the majority of the pottery relates to Iron Age jar Forms A, B, D, E and P from the typologies noted by Brudenell (2014, 192, fig.71) and Brudenell & Hogan (2014, 212, table 3). The shape of these pots is typically Middle Iron Age;

however, the wide use of fabric Q(VF) for the manufacture of such vessels is likely to suggest that such pots continued to be produced well into the Late Iron Age.

Ceramic styles and dating

Early Neolithic pottery (4th Millennium BC) – Carinated Bowls and Impressed Wares

As previously stated, fabric BF is the most typical and commonly encountered Early Neolithic fabric in the assemblage, followed by a small variety of fabrics that are suspected to be contemporary. Carinated bowls, which are typical during this period, are rare in the assemblage and consist of small fragments. Two rims made from fabric SHQF, from post-hole fill 0379, and a rim with tooling marks made from fabric BF, from pit fill 2210, are the only examples.

Three pit fills, 0791, 2530 and 3069, produced Impressed Wares, which are also likely to date to the Early Neolithic. Such pottery is decorated with nail-marks or other zig-zag impressions, and is again made from fabrics BF and F1, which are earlier prehistoric. The largest quantity of Impressed Ware derived from pit fill 0791, and according to the 'birdbone' decoration of this pottery, the original vessel belonged to the Mortlake Style (Gibson 2002, 78-80).

Beaker pottery (LNE-EBA)

Beaker and possible Beaker pottery numbers ninety-one sherds weighing 856 grams. It is mostly encountered in fabrics GQ(F) and FQ, although some examples are made from QCV and F1. Such pottery is elaborately decorated with cord impressions, hatching, cross-hatching and dense combing or, less often, rusticated with nail-marks. A base from pit fill 0784 is likely to be from a Beaker or contemporary Food Vessel. The largest quantities of Beaker pottery derived from pit fills 0664 and 3053.

Grooved Wares (LNE-EBA)

The excavation produced twenty-four sherds of possible Grooved Wares, weighing 310 grams. Most sherds are made from fabric GQ(F), while two sherds are made from QS and BFQS. Such pottery is decorated with thick and usually coarse grooves, including

diagonal incisions and stabbing marks. All of the pottery was derived from six pit fills: 0638, 0718, 0720, 0733, 0779 and 0942.

Collared Urns and Food Vessels (LNE-EBA to MBA)

In this assemblage, Collared Urns and Food Vessels are not straight forward to identify due to their poor preservation. Both types and possibly similar styles number thirty-one fragments weighing 425 grams. They are all made from fabric GQ(F) and the more refined sherds of this fabric are likely to be of Middle Bronze Age date. Such pottery can carry elaborate decoration, which is also common in Beaker pottery. The decoration consists of impressed vertical chevrons, stabbing, V-shaped incisions, nail-marks, randomly dotted areas, parallel dotted lines, linear combing, including twin combed lines, horizontal combed chevrons and random deep combing filling triangular areas. The diagnostic pieces derived from seven pit fills, 0560, 0791, 2545, 3061, 3062, 3069 and 3073. A small angular cordoned sherd from pit fill 3062 is likely to be LNE-EBA, although a Middle Bronze Age date is also possible.

Late Bronze Age to Early Iron Age pottery (c. 1000 – 600 BC)

The secure attribution of pottery to either the Late Bronze or Early Iron Age is relatively problematic due to the absence of distinctively decorated sherds of pottery of distinct styles. In the present assemblage, both periods are characterised by fabrics F2 and QSVF, although a variety of other fabrics are likely to be contemporary. A bowl rim and a jar rim from pit fill 3007, made from fabrics FQZ(G) and F3 respectively, are most likely from this period. Both sherds have an incised ridge running along their rims, while the jar's rim has pinching marks on its interior and exterior side. The decoration and style of the jar could associate with the Ivinghoe-Sandy Group of the 8th to 6th centuries BC (Cunliffe 2005, 618, fig.A7:1), although its fabric, F3, is typically Middle Iron Age; therefore, the vessel could be a transitional hybrid. Another shouldered-jar rim from pit fill 3007 is made from a fabric that stands between F2 and F1. The sherd carries nail-mark decoration along its rim and it is likely to associate with the Early Iron Age West Harling Style (Elsdon 1989, 16, fig.3) or Middle Iron Age traditions (Brudenell 2014). An angular shoulder sherd from pit fill 3375, made from the variant F2V, is likely to associate with Post-Deverel Rimbury traditions of the Early Iron Age. Finally, a Form E jar with nailmark decoration on its shoulder, made from fabric F2 and recovered from pit fill 4149, is likely to associate with the EIA-MIA transition.

Middle Iron Age pottery (5th to 2nd centuries BC, extending to the 1st century BC)

Mainly characterised by two fabrics: the typically Middle Iron Age fabric F3 and fabric Q(VF), which also extends after the 2nd century BC. Other fabrics, such as F2, F2V, QCV and QSVF, are less commonly encountered. The pottery of this period primarily consists of slack-shouldered jars of Form A, and less commonly of Forms B, D, E and P. The jar forms that were identified as typically Middle Iron Age consist of 336 sherds weighing 5,925 grams. This is the best-represented prehistoric assemblage from the site. It comes from ninety-seven vessels, according to ENVs, or 9.95 vessels using EVEs. Despite the dominance of such pottery, it is only nine pit fills that produced groups of diagnostic sherds weighing over 200 grams: 0415, 0948, 2210, 2488, 2580, 3024, 3816, 4144 and 4164.

Later Middle Iron Age and transitional pottery (3rd century BC to 1st century AD)

Such pottery was in most cases produced with fabric F(QV), which dates to the Middle Iron Age, and more specifically to the period between the 3rd and 1st centuries BC. However, some vessels made from this fabric appear to imitate Roman forms, particularly bowls.

There are two bead-shaped bowl rims from pit fill 0415 which imitate a Cam.249 form; two bowls from curvilinear fill 2468 and pit fill 3909 imitating Roman Type 6.21 bowls; and finally, a Roman Type 6.18 bowl imitation from pit fill 4035. Pit fill 4053 produced two hybrid Form A jars, normally dating to the Middle Iron Age, but with pronounced shoulders and more bulbous shapes that resemble Roman forms; finally, pit fill 4042 produced a Roman-Type 4.1 jar, which is hand-made from fabric Q(VF). In general, such pottery dates to the LIA-Roman transition, although its fabric associates with typical MIA shouldered jars and plain bowls of the previous phase.

A typical shape of this period is the bulbous jar. Such pots were produced from fabrics Q(VF) and F3, and their surfaces are in most cases burnished or smoothed. In the present assemblage, there are thirty-four diagnostic rim of shoulder sherds from bulbous jars, weighing 503 grams. They come from twenty-four vessels according to ENVs, although they only relate to 1.15 EVEs. Examples such as those from pit fill 0051 and 4015 have Romanising bead rims; others imitate shapes of the Late Iron Age Aylesford-Swarling tradition (Cunliffe 2005, 642-3, figs.31-2), such as those from pit fills

4019 and 4042; finally, some have refined fabrics that are closer to the Roman ceramic traditions, such as those from curvilinear fills 2585 and 2611.

Two bulbous jar rims from tree throw fill 3437 and pit fill 4114 are made from fabric F2, which is generally LBA-EIA in date. The shapes of both jars are almost certainly associated with the Middle Iron Age, and therefore, it is more likely that Fabric F2 was produced in different variants that continued to be used after the end of the Early Iron Age. Finally, a burnished carinated bowl from pit fill 0949 is a typical example of the LIA-early Roman Aylesford-Swarling tradition.

Distribution of pottery by features

Table 13 presents the distribution of prehistoric pottery by feature types. According to the table, 83.5% of the pottery by sherd count, or 88.1% by weight, derived from pit fills. This is followed by prehistoric pottery recovered from ditch fills, which represents 4.2% of the assemblage by sherd count, or 3.1% by weight.

Feature types	No.	% No.	Wt./g	% Wt./g
curvilinear features	138	2.0	653	1.3
ditches	283	4.2	1,486	3.1
spot-finds	62	0.9	471	1.0
furnace	1	0.0	5	0.0
gullies	9	0.1	65	0.1
deposit layers	133	2.0	517	1.1
linear fills	51	0.8	409	0.8
pits	5,664	83.5	42,829	88.1
post-holes	119	1.8	616	1.3
pot fills	0	0.0	84	0.2
ring ditches	33	0.5	147	0.3
slots	36	0.5	138	0.3
subsoil	3	0.0	23	0.0
tree throws	180	2.7	779	1.6
unstratified finds	73	1.1	370	0.8
Totals	6,785	100.0	48,592	100.0

Table 13. Distribution of prehistoric pottery by feature type

Roman Pottery

Roman pottery numbers 5,932 sherds weighing 49,227 grams. The material derived from 266 contexts including seventy-five soil samples.

Methodology

Roman pottery was quantified by fabrics, which were identified through hand specimen examination, supplemented by the use of a x10 binocular microscope. The total assemblage is listed by context order in Appendix 4.3.

Roman fabrics were identified based on the National Roman Fabric Reference Collection (Tomber & Dore 1998), but were recorded based on the abbreviations of the Suffolk/Essex fabric series (unpublished). Roman ceramic forms were recorded following the Suffolk typological series (unpublished); when this was not possible, vessels were recorded according to broader categories of ceramic forms (e.g. jars, bowls, dishes, etc.). Late Iron Age and transitional Roman forms were identified based on the typologies of grog-tempered 'Belgic' pottery by Thompson (1982). Roman Samian wares were classified according to Webster (1996).

Minimum numbers of vessels (ENVs) were estimated according to rim sherds only, or base sherds when these were the only ones available in a context. No decorated pottery was used for the quantification of Roman ENVs. Due to the presence of large numbers of Roman rim sherds, estimated vessel equivalents (EVEs) were introduced alongside with minimum numbers of estimated vessels (ENVs).

Fabrics and chronology

The Roman pottery from the site is divided in twenty-one fabrics. A summary of the assemblage by fabric codes, including a short description of each fabric, is presented in Table 14. All fabrics are in alphabetical order and the table includes a column with the date ranges of each fabric.

The majority of the pottery comes from typical Roman grey wares, which are either micaceous (GMG, GMB, GMO) or non-micaceous (GX). In total, Roman grey wares form over three quarters of the assemblage, 76.7% by sherd count or 70.2% by weight. Such fabrics cannot be precisely dated, as these are encountered throughout the Roman period.

Fabric	Brief description of fabric	Fabric Date	No	% No	Wt./g	%Wt./g
BSW and BSW?	Black surfaced wares	LIA-Rom	803	13.5	8,694	17.7
BUF	Buff wares	Rom	260	4.4	2,075	4.2
COLBM and COLBM?	Colchester buff mortaria	2nd-3rd c.	4	0.1	1,588	3.2
COLC and COLC?	Colchester colour coated wares	l. 3rd-4th c.	36	0.6	101	0.2
COLSA	Colchester Samian	m. 2nd-e/m. 3rd	1	0.0	3	0.0
ESH	Early shell-tempered wares	e. Rom	1	0.0	5	0.0
GF	Grey finewares	Rom	2	0.0	6	0.0
GMB	Grey micaceous wares with black surfaces	Rom	828	14.0	7,322	14.9
GMG	Grey micaceous wares with grey surfaces	Rom	2,340	39.4	17,972	36.5
GMO	Grey micaceous wares, oxidised	Rom	300	5.1	2,359	4.8
GROG	Grog-tempered wares	LIA-Rom	127	2.1	1,172	2.4
GX	Miscellaneous grey wares	Rom	1,080	18.2	6,908	14.0
HOG?	Horningsea grey wares	m. 2nd c. +	5	0.1	71	0.1
NOG WG2?	North Gaulish white ware 2	e. Rom	9	0.2	8	0.0
RF	Red finewares	Rom	13	0.2	32	0.1
RX	Miscellaneous red wares	Rom	54	0.9	231	0.5
SACG	Central Gaulish Samian	Hadr.-Ant.	29	0.5	335	0.7
SASG	South Gaulish Samian	Tiber.-Claud.	31	0.5	203	0.4
STOR	Large storage jars	Rom	2	0.0	57	0.1
WX	Miscellaneous white wares	Rom	5	0.1	31	0.1
WXM	Miscellaneous white mortaria	Rom	2	0.0	54	0.1
Totals			5,932	100.0	49,227	100.0

Table 14. Quantification of Roman pottery by fabric

Earlier Roman pottery

Some of the earlier Roman grey ware fabrics (GX, GMO, GMB, GMG) tend to carry large plastic and aplastic inclusions, such as fine flint found residually in sand beds, or carbonaceous inclusions of organic nature. Earlier variants with impurities are also encountered in other fabrics such as red wares (RX), while a typical early Roman fabric is shelly (ESH). In total, early Roman grey and other wares number 346 sherds weighing 4,196 grams; such quantity represents 5.8% of the Roman assemblage by sherd count, or 8.5% by weight. Fabrics of the LIA/Roman transition, such as BSW and GROG, form 15.7% of the assemblage by sherd count or 20% by weight.

In total, the earliest coarse wares from the site (fabrics BSW, GROG, GMG, GMB, GMO, GX, RX and ESH) form 37.5% of the Roman assemblage by sherd count or 28.6% by weight. This quantity represents roughly a third of the total material. Earlier

finewares and imports include South Gaulish Samian wares (SASG), dating to the Tiberian-Claudian period, and possibly North Gaulish white wares (NOG WG2?).

Later Roman pottery

The later Roman material appears to extend at least until the middle of the late 3rd - 4th century AD. Coarse wares include possibly 2nd century AD Horningsea wares, rusticated grey wares dating between AD 50 and AD 120, and Colchester buff mortaria (COLBM) dating to the 2nd and 3rd centuries AD. Pottery made in Colchester also includes a fine fragment of Samian (COLSA) from pit fill 2023, dating to the 2nd and 3rd centuries AD, and colour coated wares (COLC), dating towards the late 3rd - 4th centuries AD, such as the rusticated beakers recovered from ditch fill 2483. Several sherds of imported Central Gaul Samian pottery (SACG) dates to the Hadrianic-Antonine period.

Pottery possibly dating to the 4th century AD is limited. It only includes a small fragment from a decorated red ware vessel bearing white-painted zig-zag motifs, recovered from pit fill 2023. Although the sherd is probably made in Colchester, Oxfordshire parallels with similar decoration date to the 4th century AD.

Vessel numbers and shapes

According to the ENVs recorded in Appendix 4.3, the Roman assemblage contains a minimum of 624 vessels. Rim fragments form 68.91 estimated vessel equivalents (EVEs), with an average rim diameter of 14.88 cm. The assemblage contains a large variety of domestic wares, the majority of which are grey ware jars and bowls. Other forms include beakers, storage jars, mortaria, flagons, small drinking pots and a strainer. Imported Samian pottery consists primarily of Dr.18/31 types, supplemented by few fragments of Dr.29, Dr.33 and Dr.37 types.

The Roman assemblage contains some rare examples, which require further investigation. Only four pieces are mentioned in this section; pit fill 2023 produced an unknown type of grey ware base (GMG) and a grooved rim from a LIA/Roman black surfaced ware (BSW), which bear hybrid characteristics. Ditch fill 2184 produced a neck from a buff ware (BUF) which is likely to be a practice piece for potters. Finally, pit fill 2425 produced a grey micaceous (GMB) bowl, which appears to be a new variant of Type 6.21.

Distribution of pottery by features

Table 15 presents the distribution of Roman pottery by feature types. The table shows that 72.6% of the pottery by sherd count, or 78.2% by weight, derived from pit fills. This is followed by Roman pottery recovered from ditch fills and curvilinear features.

Feature types	No.	% No.	Wt./g	% Wt./g
curvilinear features	655	11.0	3,128	6.4
ditches	595	10.0	4,467	9.1
spot-finds	96	1.6	929	1.9
gullies	116	2.0	1,034	2.1
deposit layers	4	0.1	7	0.0
linear fills	2	0.0	6	0.0
pits	4,305	72.6	38,475	78.2
post-holes	26	0.4	141	0.3
slots	88	1.5	696	1.4
structures	5	0.1	5	0.0
subsoil	2	0.0	21	0.0
topsoil	2	0.0	11	0.0
unstratified finds	36	0.6	307	0.6
Totals	5,932	100.0	49,227	100.0

Table 15. Distribution of Roman pottery by feature type

Medieval and post-medieval pottery

Introduction

A total of 1,019 sherds of pottery weighing 9,247 grams was collected from thirty-eight contexts in twenty-five features. Table 16 shows the quantification by fabric while a summary catalogue by context is included as Appendix 4.4.

Methodology

Quantification was carried out using sherd count, weight and estimated vessel equivalent (EVE). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares. Methods follow MPRG recommendations (MPRG 2001) and form terminology follows MPRG classifications (1998). The results were input directly onto an Access database, which forms the archive catalogue.

Description	Fabric	Date range	No.	Wt./g	Eve	MNV
Early medieval ware	EMW	11th–12th c.	73	333	0.13	62
Early medieval ware gritty	EMWG	11th–12th c.	1	8		1
Early medieval ware micaceous	EMWM	11th–12th c.	1	3		1
Yarmouth-type ware non-calcareous	YARN	11th–12th c.	2	11		2
Total early medieval			77	355	0.13	66
Waveney Valley coarsewares	WVCW	12th–14th c.	561	5,124	3.92	462
Hollesley-type coarseware	HOLL	13th–14th c.?	142	1,553	1.30	84
Hollesley-type ware with clay pellets	HOLLcp	13th–14th c.?	35	445		10
Medieval coarseware	MCW	12th–14th c.	64	516	0.25	44
Medieval chalk-tempered ware	MCWC	12th–14th c.	10	155	0.05	6
Medieval coarseware micaceous	MCWM	12th–14th c.	1	8		1
Hollesley glazed ware	HOLG	L.13th–E.14th c.	90	755	0.80	46
Waveney Valley glazed wares	WVGW	13th–14th c.?	7	69		5
Grimston-type ware	GRIM	L.12th–14th c.	17	176		5
East Anglian redwares	EAR	12th–15th c.	1	2		1
Developed Stamford ware	STAMC	E.12th–M.13th c.	2	14		1
Unprovenanced glazed	UPG	L.12th–14th c.	8	58		4
Flemish blue-grey ware	FLBG	12th–13th c.	2	6		2
Total high medieval			940	8,881	6.32	671
Glazed red earthenware	GRE	16th–18th c.	1	10		1
Unidentified	UNID		1	1		1
Total post-medieval			2	22		2
Grand Totals			1,019	9,247	6.45	739

Table 16. Pottery quantification by fabric

Pottery by period

Early to high medieval

Most of this assemblage comprised pottery of later 11th to 14th-century date. This includes both the handmade wares (some of which had wheel-finished rims) classified as ‘early medieval’ and the wheel-made greywares classified as ‘medieval’. In this part of Suffolk, as elsewhere in rural East Anglia, the two methods of manufacture appear to have overlapped during the 12th-13th centuries.

The range of fabrics present during the early and high medieval periods is relatively limited. The early medieval wares are all sandy types, with fine/medium sandy EMW occurring most frequently. Sandy non-calcareous Yarmouth-type ware occurs in small quantities, and one coarse sandy and one micaceous sandy ware were also present.

Of the early medieval wares, one rim was a typical simple everted jar type of the 11th - 12th centuries, and one bowl and one jar rim with everted square-beaded rims were slightly developed forms of probable 12th/13th-century date.

The majority of high medieval coarsewares are likely to be of local manufacture, and fit within the broad fabric group observed previously in north-east Suffolk, termed 'Waveney Valley coarsewares'. These are fine sand-tempered fabrics with sparse to moderate mica, and with sparse inclusions of typical local geological origin (clay pellets, chalk, ferrous particles, flint). The second largest group was Hollesley-type wares, which are generally coarser and paler than the Waveney Valley types, but have a similar range of forms and rim types. Together, these fabrics make up the major portion of assemblages from this part of Suffolk.

The range of forms present in the high medieval group comprises forty jars, forty-seven bowls, four jugs and a possible curfew. By far, the majority of rims were of developed (squared) types, with some similar to late medieval and transitional forms, suggesting that the assemblage continued into the 14th and possibly the early 15th century. All rims were of Suffolk types, with no Norfolk fabrics and forms present, although little medieval pottery has been recovered immediately to the north of the border in recent years and it is likely that the 'Waveney Valley' group also occurred in this part of south-east Norfolk.

Glazed wares formed 8.5% of the high medieval group (based on MNV). This is a typical proportion for rural sites of similar date range. Hollesley-type glazed wares dominated, although it is possible that similar wares were made elsewhere in this area, and a few are similar to the Waveney Valley coarsewares (recorded as Waveney Valley glazed wares). A few Grimston vessels were also found, and there was one possible Stamford green-glazed whiteware. Eight glazed sherds were unidentified but probably of local origin.

Two hard-fired greyware body sherds appeared to be Flemish (Paffrath) products, although it is possible that they could be overfired greywares of more local origin.

Post-medieval

A single sherd of glazed red earthenware was recovered, and was heavily abraded, but appeared to be a bowl rim.

Unidentified

A small flake of a soft, fine sandy redware with occasional clay pellets is unidentified. It may be Roman, medieval or post-medieval.

Provenance

The site is well stratified and much of the material is derived from sealed contexts. A summary of the pottery by context is provided in Appendix 4.1, and a spotdating table in Appendix 4.4. Table 17 provides a quantification by feature type.

The majority of the assemblage was recovered from structure 0235 and associated layers, a total of 760 sherds. Other large groups were recovered from fills of pit 0764 (73 sherds), ditch 0090 (36 sherds) and ditch 3945 (33 sherds). Most other features contained fewer than ten sherds each.

Feature Type	No.	Wt./g	MNV
Pit	74	692	63
Ditch	106	930	73
Linear	23	242	19
Post-hole	42	237	30
Structure	216	2,187	30
Layer	545	4,809	416
Finds	13	150	11

Table 17. Pottery distribution by feature type

No phasing or grouping information was available at the time of writing, but it will be useful to consider the pottery recovered from feature groups, and particularly the material from the structure, at the analysis stage.

5.3.3 Ceramic building material

Introduction

Fifty-two fragments of CBM weighing 2,296 grams were collected from twenty contexts during the evaluation and excavation (Appendix 4.5). Fragments were generally in poor condition, being abraded or very abraded, and most were small. They were recovered from ditches, pits and a post-hole, and four pieces were unstratified.

The assemblage was quantified (both count and weight) by fabric and form. Fabrics were identified on the basis of macroscopic appearance and main inclusions. The width, length and thickness of bricks and floor tiles were measured where possible, but

roof tile thicknesses were only measured when another dimension was available. A full catalogue is included in Appendix 4.5.

The assemblage

Table 18 shows the quantification of CBM by type and form. The majority of fragments were abraded or heavily abraded and many were not positively identifiable as a result.

Type	Form	code	No.	Wt./g
Roman	Flanged <i>tegula</i>	FLT	6	948
		IMB	1	19
		IMB?	1	55
	Roman tile	RBT	4	529
		RBT?	1	25
Roofing	Plain roof tile: post-medieval	RTP	23	493
		RTP?	2	12
		Pantile	PAN	2
Walling	Later brick	LB	2	46
		LB?	2	12
		Unknown	UN	8
Totals			52	2,296

Table 18. CBM by type and form

Roman

Thirteen fragments of Roman tile were collected from nine contexts. Most were abraded, some heavily. They were in a range of fine and medium sandy fabrics, mostly with red clay pellets, ferrous inclusions or flint. Six fragments were pieces of two flanged *tegulae*. These were both 22 mm thick and had flange heights of 49-53 mm, widths of 30-32 mm and the flanges were rectangular in section with slightly sloping inner surfaces. Both had knife-trimmed bases. Two fragments were possible or certain pieces of *imbrex*, both 14 mm thick. Fragments identified as undiagnostic Roman tile included one piece which was 31 mm thick and one which was 37 mm thick, both in the upper range for flanged *tegulae* or the lower range for wall/floor tiles.

Roofing

Twenty-seven fragments were pieces of post-medieval roof tile. The majority were plain tiles but there were also two fragments of pantile (both unstratified). The plain tiles were all fully oxidised and most were in a medium sandy fabric with small to large flint inclusions, although a few were finer. Two fragments had traces of lime mortar on the surface. No peg holes were present in these fragments.

Walling

Four fragments were identified as certain or possible post-medieval brick. These were also in medium sandy fabrics with flint inclusions. The fragments were small and abraded.

Unidentified

Eight small, abraded fragments were undiagnostic due to loss of surfaces. Some pieces in soft fine sandy fabrics may be Roman (or possibly fired clay), whilst those with fabrics similar to the post-medieval tile and brick are likely to be of post-medieval date, but their forms were uncertain.

5.3.4 Fired clay

Introduction

A total of 11,441 fragments of fired clay weighing 39,924 grams were recovered during the evaluation and subsequent excavations of the site. The material derived from 320 contexts, including forty-two samples. The material discussed below does not include any soil sample finds from the evaluation.

Methodology

All fired clay is quantified by fabrics, divided in three broader categories based on their sorting (coarse, fine and medium). The fabric codes used for the characterisation of the material follow the Suffolk series (unpublished). All fired clay is presented by context order in Appendix 4.6. The appendix includes information on the fabric and colour of the fired clay; it identifies types of fired clay when possible; it notes the shape of some characteristic pieces; it discusses the presence of flat surfaces or impressions on the pieces; and finally, it comments on the general condition of the material.

Quantification

The quantification of the fired clay by fabric is presented in Table 19. Due to the presence of rare fabrics represented in very small quantities, percentages were rounded to the second decimal figure. The table shows that most of the fired clay was produced from medium sandy clay with chalk and organic tempers (msco) and from a similar variant of this fabric with flint (mscof). Both fabrics comprise almost 67% of the assemblage by count or roughly 50% by weight. With exception of some heavy pieces

made from a coarse variant of the above fabrics with additional flint (cscof), comprising 20.4% of the assemblage by weight, the rest of the fabrics are represented by small quantities.

Fabric	Description	No.	% No.	Wt./g	% Wt./g
csc	coarse sandy with chalk and organic temper	195	1.70	3,097	7.76
cscf	coarse sandy with chalk, organic temper and flint	1,177	10.29	8,160	20.44
csv	coarse sandy with irregular voids	3	0.03	185	0.46
fs	fine sandy	189	1.65	618	1.55
fsf	fine sandy with flint	133	1.16	373	0.93
fsc	fine sandy with chalk and organic temper	774	6.77	2,088	5.23
fscf	fine sandy with chalk, organic temper and flint	310	2.71	728	1.82
fscg	fine sandy with chalk, organic temper and grog	2	0.02	5	0.01
fscpf	fine sandy with clay pellets and flint	6	0.05	61	0.15
fsmv	fine sandy micaceous with irregular voids	3	0.03	6	0.02
fso	fine sandy with organic temper	160	1.40	876	2.19
fsf	fine sandy with organic temper and flint	144	1.26	1,149	2.88
fsv	fine sandy with irregular voids	283	2.47	896	2.24
fsvf	fine sandy with irregular voids and flint	120	1.05	548	1.37
ms	medium sandy	17	0.15	57	0.14
msf	medium sandy with flint	6	0.05	31	0.08
msc	medium sandy with chalk and organic	3,540	30.94	9,924	24.86
mscf	medium sandy with chalk, organic temper and flint	4,165	36.40	10,020	25.10
msg	medium sandy with grog	7	0.06	20	0.05
mso	medium sandy with organic temper	58	0.51	664	1.66
msf	medium sandy with organic temper and flint	28	0.24	184	0.46
msofe	medium sandy with organic temper, ferrous	1	0.01	8	0.02
msv	medium sandy with irregular voids	120	1.05	226	0.57
Totals		11,441	100.00	39,924	100.00

Table 19. Quantification of fired clay by fabric

In general, the fired clay is made from a mixture of sandy and chalky clays, containing organic tempers and often coarse flint. In most cases, the colour of the pieces ranges from orange to light brown. The condition of the fired clay is relatively good, except perhaps for the coarse fragments, which tend to be heavily abraded.

Types, shapes and function

As shown in Appendix 4.6, many of the pieces of fired clay are rectangular, while several others with two flat surfaces often form rounded edges/corners. The thickness of the pieces that are rectangular in section ranges between 4 mm and 26 mm. Such pieces are noted as slabs and are likely to come from floors or other structural elements. One thick rectangular piece from pit fill 2409, the thickness of which reaches 78 mm, is likely to be from a large structure.

Another type of fired clay is daub. Such pieces often carry rod impressions, the width of which usually ranges between 8 mm and 21 mm. Other pieces of daub carry fine twig impressions, 3-4 mm wide, and many pieces with organic fabrics carry additional fine plant impressions on their surfaces.

Thirteen pieces of fired clay weighing 199 grams were identified as either briquetage or possibly briquetage and were derived from pit fills 0256, 0344, 0948. They are all heavily tempered with organic material, which has burnt out and left distinct impressions and voids on their surfaces. Two of these pieces were identified as vessel bases from briquetage that was shaped to resemble pottery.

Other pieces with cylindrical or semi-cylindrical shape, such as those from pit fills 0489 and 0617, were recorded as possible kiln furniture.

Thirty pieces weighing 860 grams were identified as possible loomweights. They were all derived from pit fills 0254, 0419, 0638, 0771, 2410 and 3182. Such pieces either carry rod impressions at obtuse angles, which could be perforations, or rounded edges similar with those found on loomweights. The definitive identification of such pieces as loomweight fragments is uncertain due to their shape alone; however, it should be noted that pit fill 0771 produced pieces that were positively identified as loomweight fragments (SF 1064). These pieces were made from fabric msco, which is similar with fabric fsco, noted for the ten pieces recorded as fired clay from the same pit fill.

Two small pieces from pit fills 0319 and 0459 carry small encrustations of slag and iron-rich remains. These pieces were identified as possible crucibles; however, it is also possible that such pieces were fired when iron residues and slag dropped accidentally on the floor during metal processing.

A single rectangular piece from pit fill 2575 preserves four flat surfaces, all intersecting at straight angle, forming a sharp corner. The thickness of the piece is 22 mm and resembles Roman *tesserae*. It is possible that it comes from a floor or some other form of similar structure.

Distribution of fired clay

Table 20 presents the distribution of fired clay by feature type. The table shows that most of the material was recovered from pit fills, followed by various other feature types and layers.

Feature types	No.	% No.	Wt./g	% Wt./g
curvilinear fills	269	2.35	865	2.17
deposit layers	913	7.98	3,226	8.08
ditch fills	162	1.42	800	2.00
finds	72	0.63	200	0.50
furnace fills	282	2.46	1,974	4.94
gully fills	7	0.06	11	0.03
linear fills	56	0.49	361	0.90
pit fills	9,369	81.89	31,698	79.40
post-hole fills	64	0.56	203	0.51
ring ditch fills	26	0.23	79	0.20
slot fills	209	1.83	472	1.18
structure layers	8	0.07	24	0.06
tree throw fills	4	0.03	14	0.04
Totals	11,441	100.00	39,924	100.00

Table 20. Distribution of fired clay by feature type

5.3.5 Worked Flint

Methodology

Each piece of flint was examined and recorded by context in an Access Database table alongside the material previously catalogued from the evaluation of the site. The material was classified by category and type (see archive) with numbers of pieces and numbers of complete, corticated, hinge fractured and patinated pieces being recorded and relative degrees of edge damage and sharpness being noted. Additional descriptive comments were made as necessary. Non-struck flint has been discarded; it is included in the database but not in this report.

Retouched and utilised pieces have been bagged separately within the main bags as necessary, but not where the context assemblages were small. Individual pieces, which may be worthy of illustration or are of interest, are highlighted in the database and numbers of these pieces are mentioned below, although not all of these will be selected for illustration. Pieces cited below by context as examples are not necessarily the same as those highlighted in the catalogue. Final selection of pieces for detailed description and for illustration will be made during the analysis stage.

Introduction

A total of 4,056 struck, shattered, retouched or utilised flints were recovered from the site, this total including the forty-eight pieces found during the previous evaluation trenching of the area (Bates 2011). Three heat-altered flint fragments are also present. The flint assemblage is summarised by type in Table 21 below, followed by a summary description of the contexts from which it came. The potential of the material is assessed and recommendations for analysis are made in Sections 6 and 7. The flint is listed by context in Appendix 4.7.

Type	Number	Type	Number
multi-platform flake core	38	end scraper	20
single platform flake core	8	side scraper	3
multi-platform blade core	2	end/side scraper	1
single platform blade core	3	slightly retouched 'scraper'	15
keeled core	4	piercer	27
core fragment	23	spurred piece	4
tested piece	40	?piercer/possible knife	1
struck fragment	104	backed knife	5
shatter	242	polished axe/knife	1
core trimming flake	7	flake with polished surface	2
core tablet	2	leaf-shaped arrowhead	1
core/tool	8	?hollow based arrowhead	1
flake	2,142	possible arrowhead	5
thinning flake	5	combination scraper/knife	3
		combination scraper/notched	
blade-like flake	186	flake	1
blade	112	notched flake	1
bladelet	13	serrated flake	2
spall	483	serrated blade	1
chip	79	flaked piece	10
hammerstone	15	retouched flake	92
flake from hammerstone	5	retouched fragment	21
smooth ?hammerstone	1	retouched blade	7
hammer/pounding tool	6	utilised flake	194
flake or fragment from quern	4	utilised blade	42
scraper	46	utilised fragment	18
		Total	4,056
		Heat-altered fragment	3

Table 21. Summary of the flint by type

The assemblage

Cores, struck and shattered pieces

By far the greatest number of cores are multi-platform flake cores. The multi-platform cores range in weight from 18-238 grams. Predominantly, they are quite irregular but some have been well-used; either quite carefully struck from various edges, or used to such an extent that they were no longer suitable for further use or 'exhausted'. There is

evidence that some cores have been rotated and struck from newly selected platforms. Single platform flake cores are slightly larger (28-285 grams) and range in nature, some not much more than 'tested' pieces and one or two quite neat pieces. *(3 flake cores were highlighted during cataloguing)*

There are only small numbers of blade cores (single platform blade cores; 58-153 grams). One neatly used quite squat pyramidal blade core is probably earlier Neolithic recovered from pit fill 4052 *(highlighted during cataloguing)*. A few cores were classified as keeled types (struck from two sides of an edge) but they vary in nature. *(one piece was highlighted during cataloguing)* Core fragments include undiagnostic pieces as well as a few with some evidence for the type of core and nature of flint working.

Tested pieces (24-420 grams) mostly comprise cortical lumps, often irregular gravel nodules which have been struck more than once from an edge/edges. They represent the deliberate selection of flint and the discard of unsuitable pieces. 'Struck fragments' are irregular fragments which show some sign of having been derived during knapping (e.g. negative flake scars, battered edges and incipient percussion points where mishits have occurred). Shatter pieces are more irregular fractured fragments but, again, probably resulted during the preparation and knapping of flint.

Some pieces of uncertain, or dual purpose have been classed as 'core/tools'. They have been flaked from one or more surface and may be cores or have been used for tools or, possibly, were abandoned during preparation as tools. *(one piece was highlighted during cataloguing)*

Flakes and other debitage

A small number of flakes have been classed as core rejuvenation pieces although mostly these are fairly irregular. They do, however, show that platforms/platform edges were sometimes renewed or made suitable for further use. *(two pieces were highlighted during cataloguing)*

By far the largest part of the assemblage comprises unmodified flakes. From individual contexts they range in numbers from single items to 158 pieces, but the majority were found in groups of less than ten (mostly, less than five). Flakes are predominantly quite small and quite squat, and most have been struck by hard hammer. Flake platforms

include plain flat surfaces as well as those which are faceted or have ripples from formerly flaked areas, suggesting the rotation of cores with multiple platforms. An apparently fairly large number of flakes are struck from cortical surfaces, sometimes platforms but, also, primary surfaces i.e. where cortex runs around the proximal side of a flake and extends around lateral or other faces. There are smaller numbers of neater flakes some of which may be soft hammer struck although careful platform edge preparation is almost entirely absent, and although there are flakes with more irregular battered platform edges. The majority of flakes (84% by number) are complete, 75% have some cortex and 7% are primary flakes (with their dorsal surface entirely of cortex). However, it should be noted that the abundance of cortex was further commented upon with pieces sometimes described as 'near primary'. Flakes are most often described as sharp or quite sharp although edge damaged pieces were not infrequent. Two refitting flakes were identified in pit fills 0390 and 0415, and similar flakes were found within a few other contexts, although refits were not identified at assessment (e.g. pit fills 0280, 2202, 3062 and 4253).

A small number of flakes have been classified as thinning flakes due to their thin slightly curving nature and multi directional dorsal scar (Andrefsky 1998, 119, fig.6.2). One from pit fill 3062 has a worn proximal end, which might be from a former tool edge.

Blade-like flakes are generally small and usually found in very small numbers, often single examples from a context. Some are irregular and cortex is not uncommon; it is likely that many pieces may have occurred accidentally during knapping; however, there are some neat thin examples and a few (generally from contexts with more than one blade type piece) exhibit evidence for core preparation.

Blades are mostly small and almost all are sharp. It appears, from casual observation of the catalogue, that a greater number of blades (than other types) are patinated; this might be relevant and denote their greater age or residuality. Unsurprisingly, greater numbers of blades than other flake types show evidence for core preparation. A small number of contexts have greater numbers of blades (see below) but mostly they occur in contexts in very small numbers or single pieces. A few small bladelets are also present.

Other debitage comprises flint spalls and small chips, some of which have been recovered from soil samples, along with a few larger pieces. They could be from core preparation, flake production or the flaking of tools, and suggest that flintworking occurred close to where they were found.

Hammerstones, similar pieces and quern

Sub-spherical and irregular cortical lumps have battered, 'pitted' surfaces and have been used to varying degrees as hard hammers for flintworking. Some are naturally shaped cortical gravel nodules which fit nicely into the hand. It is possible that some may have also been used as cores, although this was not as obvious as is sometimes the case.

A few pieces may have been used for some other 'pounding' type purpose, e.g. from pit fill 3007; they have a battered and, sometimes, slightly worn edge rather than a larger surface area of battering.

One large almost spherical lump has an extremely smooth surface and even a small area of cortex is smoothed as if worn or 'polished' (SF 1124). The surface is covered with apparent incipient percussion rings; the original function of this piece is uncertain. Part of one side has fractured from the face but is present. It is unclear as to whether this happened before, during or after excavation but there is a small 'flake' missing at the point of its impact. *(five hammerstones were highlighted as of possible interest during cataloguing)*

Four quite small fragments have flat abrasive surfaces, distinctive of flint querns. *(all were highlighted during cataloguing)*

Retouched and utilised tools

Scrapers

A total of eighty-five pieces have been classed as scrapers. Well over half of these are not distinctive recognised types, but are miscellaneous in nature, mostly quite small, and with varying amounts of cortex and degrees of retouch of their edges. Quite a few pieces were classified by broader category as retouched pieces (rather than as scrapers) but have characteristics suggesting their use as scrapers, mostly, very slight

retouch or utilisation of scraper-like, and quite often cortical edges. Apart from the miscellaneous scrapers, end scrapers are most common but, again, they are mostly quite small and cortical rather than regular or well-defined diagnostic or closely dateable pieces. A very few scrapers are side-retouched. *(Many of the scrapers were highlighted of possible interest during cataloguing)*

Piercers and other points

Piercers mostly comprise slightly retouched or utilised pieces. One or two are blade-like in nature and a few have stubby points, which have been used. One piercer from pit fill 4104 is made on a probable thermal fragment and one from layer 0795 has steep retouch either side of a point protruding from a relatively large thick flake. Three irregular cortical pieces, one a thermal fragment from post-hole fill 2960, have retouch forming a spur at one edge. Another piece from pit fill 0329 is retouched at both sides at its proximal end, which narrow to a 'point' and may be a piercer. There is, however, some evidence that the wider distal edge has been utilised, so perhaps the proximal end was hafted (or it is a multi-purpose 'combination' tool). *(Up to eight of the piercer-type pieces were highlighted during cataloguing)*

Knives

All the pieces classified as knives have been described as backed knives and have one thicker steeper side, which is usually cortical or retouched, and an opposite edge, which is use-damaged. One example from unstratified finds, context 2008, is suggested as possibly earlier Neolithic; the others are not closely dateable. *(all 5 of the knives were highlighted during cataloguing)*

Many other miscellaneous retouched/utilised pieces were also used as knives (see below).

Axe

A very thin 'axe' is present (SF 1182). It is bifacially flaked around its edges but, unusually, has cortex surviving across the central part of both faces. Its wider end, including the cutting edge, is polished while the narrower end has slightly more flaking of its surfaces. Part of one lateral edge has an abraded thermal surface. It seems that a naturally 'axe-shaped' cortical fragment was carefully used. Thin-butted Neolithic

axes are known but, possibly, the piece may have been deliberately shaped with the aim of replicating a metal axehead. (*The axe is highlighted in the catalogue*)

Two flakes have polished surfaces. They are probably from axes. One flake has part of the original tool edge at its proximal end/platform. The other has only tiny areas of polish surviving. (*one flake is highlighted in the catalogue*)

Arrowheads

A quite long slender leaf-shaped arrowhead is of earlier Neolithic date (SF 1156), and part of another possible leaf-shaped arrowhead is present (unstratified finds 2008). A very thin bifacially flaked 'triangular' piece with one point missing may be a hollow-based type arrowhead (SF 1060) and another slightly irregular piece from pit fill 3994 might be a chisel type arrowhead, although this is uncertain. Both these arrowheads (if that is what they are) are of later Neolithic date. A roughly triangular piece with crudely flaked faces from pit fill 2023 may be another arrowhead and two small fragments may also be from arrowheads; SF 1217 from pit fill 4257 and a piece from a sample from pit fill 2021.

Combination tools

Four pieces are classified as combination tools having retouch or signs of use indicating that they had more than one function (although other tool types may, of course, also have been used for more than a single purpose). They include three scraper/knives from pit fills 0942 and 3907, and unstratified finds (2008); also, a scraper/notched flake from pit fill 3111. Combination tools are more common in later Neolithic assemblages but also occur in earlier and later periods. (*one piece was highlighted during cataloguing*)

Notched or serrated pieces

One small blade-like flake from ditch fill 2603 has a notch in one side which might have been deliberately formed or due to use. Two flakes and a blade have slightly serrated edges. They derived from pit fill 3467, ditch fill 3198, and curvilinear fill 2772. (*The blade was highlighted during cataloguing*)

Flaked pieces

Flaked pieces include flakes and fragments which appear, themselves, to have been deliberately flaked from an edge/surface and may have been used as tools e.g. from ditch fill 3159 and from pit fills 2581, 2889, 3317, 2942, and also some fragments which may be from the edge of flaked tools e.g. from pit fills 2581 and 2782, and from curvilinear fill 2772. (3 flaked pieces were highlighted during cataloguing)

Miscellaneous retouched and utilised pieces

Many miscellaneous retouched pieces are present. These mostly comprise flakes, with smaller numbers of fragments (usually thermally fractured) and blades. Flakes are also the most common utilised pieces but blades have been more frequently utilised than fragments probably due to their readily available knife-like edges. Both retouched and utilised pieces often have cortex 'backing' of an opposite edge which would have made the pieces easier to hold and was probably a reason for selection for use. In a few cases there is evidence for the 'reuse' of material, e.g. a very large thick flake of patinated glossy orange brown flint (from unstratified finds 2008) may be utilised/reused; its colour and weathered appearance suggests a possible Palaeolithic origin. A flake from a possible hammerstone from pit fill 3016 may have been used as a knife. In most cases the retouch or utilisation of waste pieces could be seen as possible reuse. (10 retouched and 5 utilised pieces are highlighted in catalogue)

Flint by context

The total number of flints by context type is shown in Table 22.

Context type	No. of flints	No. context type
Pit	3,039	345
Ditch	219	24
Finds	211	10
Curvilinear	140	5
Layer	115	9
Tree throw	101	2
Post-hole	94	25
Ring ditch	57	3
Not recorded	29	-
Slot	22	7
U/S	10	1
Linear	9	4
Furnace	5	1
Gully	5	2
Deposit	2	1
Spot find	1	1

Table 22. Total flint numbers by feature type

It is noted that the context types are not definitive, e.g. many contexts recorded as 'finds' are also unstratified and some types (e.g. ditch/gully/linear) may reflect inconsistencies in recording. Other anomalies probably exist.

By far, the greatest number of flints was found in pits: 75% by count of the flints from the site came from a total of 345 pits. Numbers of flints in individual pits ranged from more than 200 in a few cases, to in a single piece in many pits (Table 23).

No. of flints	No. of groups/features
>200	4
200>100	2
100>50	6
50>20	13
20>10	18
10>5	40
5>2	132
1	130

Table 23. Numbers of flints found in individual pits

Pottery from the site shows that many of the excavated features which contain flint also include pottery of middle or later Bronze Age, Iron Age, Roman or medieval date. Lesser amounts of later Neolithic earlier Bronze Age pottery and smaller numbers of early Neolithic sherds are also present, but it is difficult to ascertain ceramic dates for individual features at assessment since sherds of more than one date occur together. Furthermore, some contexts with apparently early 'blade-type' flints also contain later prehistoric pottery.

It is notable that some collections of very similar pieces were found together in some contexts. These include a small number of contexts with distinctive small neat blades and, in several cases, more irregular debitage. Refitting pieces were identified (at assessment) in only two cases.

Discussion

The flint includes pieces representing its procurement, preparation, use and discard. Some pieces demonstrate the testing of raw material for suitability. Cores are mostly quite irregular flake cores, quite likely to be of later prehistoric date, although there are a few blade cores, which probably date from the earlier Neolithic. A few cores have been rotated with some care and a small number of flakes show that attention was paid to platform maintenance (Butler 2005, 121).

There are relatively large numbers of miscellaneous struck fragments and irregular shatter pieces. Various flake types occur but, predominantly they tend to be hard hammer struck, often thickish, many cortical, and with little evidence for core preparation. Thermal fragments have sometimes been utilised. Aspects of much of the debitage, therefore, support a later Bronze Age or Iron Age date (Ballin 2002, Humphrey 2007). Some blades are also present, mostly in very small numbers but, in a few cases, collections of similar small neat blades came from individual features and suggest an earlier Neolithic date.

The presence of a number of flint hammerstones is of interest and, along with the flint debitage, shows that flint-working occurred at the site. The apparent absence of cores reused as hammers might be significant; it possibly reflects the irregular nature of the cores and thus suggests their likely later prehistoric date. It is possible that some of the battered hammer or 'pounding' stones may have been used for another purpose. Although only a few small fragments of flint quern are present they show that food preparation occurred at the site.

Small numbers of diagnostic tools or other more closely dateable flints occur within the assemblage: a few blade cores, notably one very neat pyramidal type, some neat blade-type pieces from prepared cores, a leaf-shaped arrowhead and some thinning flakes are all probably earlier Neolithic; serrated pieces are often of this date although the present examples are irregular and only slightly 'serrated'. An unusual partly polished axe of probable Neolithic date is present. Diagnostic later pieces are rare; some possible arrowheads are probably LNEBA but it seems likely that flint of later Neolithic to Iron Age date is present; further analysis by context will help to identify material of different dates and suggest where flints are likely to be residual. The many scrapers which are only slightly retouched and made on various suitably shaped blanks, often cortical, suggest a later Bronze Age or Iron Age date; individually they could be of any date but considering their prevalence and the virtual absence of more distinctive diagnostic scrapers, a later prehistoric date seems likely for many/most of them. Most of the other tools, as well as the miscellaneous retouched and utilised pieces could be similarly interpreted.

The flint distribution has not been looked at in detail at assessment; it seems likely that analysis and consideration alongside the ceramic evidence will enable identification of feature assemblages of possible significance and, probably, of different dates. The flint can be seen alongside that from various sites excavated at Flixton Park Quarry to the North-East (Bates 2012; in prep.).

5.3.6 Heat-altered flint and stone

Introduction

The site produced 291.867 kilograms of heat-altered flint and 212.106 kilograms of heat-altered stone, primarily quartzite/sandstone. The heat-altered flint derived from 646 contexts and the heat-altered stone derived from 624 contexts. Such stones were recorded, quantified and discarded. The total material is summarised by context order in Appendix 4.8. It should be noted that in features where heat-altered flint was comprised the primary fill, only 50% was retained during excavation.

Methodology

The heat-altered flint from most of the excavated contexts consists primarily of numerous tiny fragments. By contrast, the heat-altered stone generally consists of larger and heavier fragments when compared to the flint. For an efficient quantification of the material, it was decided that both artefact categories were to be recorded by weight only. Furthermore, the weights of material recovered from soil samples were added on to the total weights of the hand collected material deriving from each context; in Appendix 4.8, all contexts that produced samples are noted in the comments section.

Appendix 4.8 also presents the quantification of both artefact categories by percentage of finds per context. This quantification offers information on the features that produced the largest percentages of the same find category. Due to the varying quantities of heat-altered flint and stone in the contexts, all percentages were rounded to the third decimal digit in order to make more sense to the reader. The presence of different stone types within the same contexts was also noted in the comments column of the appendix.

Quantification

Table 24 presents the quantification of the material by feature type. The table shows that 88.5% of the total heat-altered flint by weight was recovered from pit fills, followed by significantly smaller percentages deriving from ditch fills and post-hole fills. Pit fills also produced 93.4% of the total heat-altered stone, followed by ditch fills and curvilinear fills, which produced significantly less material.

Feature type	HAF Wt./g	% HAF Wt./g	HAS Wt./g	% HAS Wt./g
Curvilinear fills	1,928	0.7	3,615	1.7
Various deposit layers	5,798	2.0	1,418	0.7
Ditch fills	7,404	2.5	3,696	1.7
Finds	425	0.1	2,347	1.1
Furnace fill	401	0.1	4	0.0
Gully fills	100	0.0	133	0.1
Linear fills	918	0.3	55	0.0
Pit fills	258,292	88.5	198,059	93.4
Post-hole fills	6,597	2.3	1,989	0.9
Ring ditch fills	3,019	1.0	52	0.0
Slot fills	6,354	2.2	192	0.1
Structure fills	142	0.0	59	0.0
Tree throw fills	489	0.2	487	0.2
Totals	291,867	100.0	212,106	100.0

Table 24. Quantification of heat-altered flint and stone

As noted in Appendix 4.8, the largest percentages of heat-altered flint derived from pit fills 3092, 4081, 3304 and 3078. Each of these fills produced over 5% of heat-altered flint in relation to the total weight; however, none of the fills exceeded 7% of the total material. By contrast, the largest percentages of heat-altered stone derived from pit fill 4150, which produced 18.4% of the total material by weight, and from pit fill 0254, which produced 7.4% of the total. Pit fills 2911, 3007 and 2155 produced significantly smaller quantities of heat-altered stone, ranging between 4% and 6% of the total weight.

Discussion

The presence of heat-altered flint and heat-altered stone is usually associated with prehistoric or, sometimes, later domestic activities, specifically with those associated with heating, often the preparation of food. Of course, other activities may generate or be associated with the use of such material. For example, the tempering of pottery with crushed flint or sandstone in prehistoric production could have utilised fragments deriving from larger heat-altered pieces of flint or stone, which were easily accessible in domestic hearths. Furthermore, large stones could have been used to control open

bonfires lit for domestic purposes or other production related activities (e.g. agriculture, metal and textile processing, etc.).

In relation to the chronological distribution of the current material, out of the four pit fills that produced the largest quantities of heat-altered flint (3092, 4081, 3304 and 3078), only one (3092) contained datable artefactual evidence. Mixed Early Neolithic and Middle Iron Age sherds were recovered, suggesting a Middle Iron Age date for the feature. By contrast, pit fill 4150, which produced the largest quantity of heat-altered stone, contained a single and tiny pottery fragment, dating to the Late Bronze Age. Heat-altered stone in this fill is likely to be contemporary; however, it could also associate with later activities if the pot sherd were residual. Pit fill 0254, which produced the second largest quantity of heat-altered stone, contained primarily Roman material dating between the 2nd and 4th centuries AD, with some Later Iron Age pottery and Roman transitional wares being possibly residual. It is highly likely that heat-altered stone from this fill is contemporary with the pottery.

5.3.7 Lava quern

The site produced 3,907 grams of lava quern that deriving from ten contexts. The material is presented in Table 25 by context order. The table includes a column with the pottery spot-dates of each context and a column commenting on the material.

Much of the lava quern is highly fragmented and in poor condition. For example, the material deriving from curvilinear fill 2397 and ditch fill 2484 consists of small and highly abraded fragments, the exact number of which could not be established. Some large rectangular pieces preserving two flat surfaces are most likely from rotary querns, the thickness of which was over 40mm. A rectangular piece from pit fill 0847 is significantly thinner than the rest, suggesting that the original quern was almost depleted when disposed of. A large rectangular piece in good condition from structure fill 0701 carries striation marks on one of the flat surfaces.

Feature No.	Ctxt	Feature Type	No.	Wt./g	Notes	Pottery date
0080	0081	pit	5	4		LIA
0003	0136	layer	1	437		
0251	0252	finds	1	697	rectangular piece 57mm thick; good condition	Med
0255	0256	pit	3	105		MIA; Later IA; Rom
0235	0701	structure	2	1,465	large rectangular piece 43mm thick; good condition; one flat side with striations	Med
0235	0758	layer	5	485	rectangular piece 40mm thick; 4 pieces in good condition	Med
0846	0847	pit	5	129	rectangular piece 28mm thick; surface depleted heavily abraded; poor condition	LIA-Rom; Rom
2394	2397	curvilinear	c.40	24		LIA-Rom; Rom
2477	2479	curvilinear	3	61	poor condition	Rom
0152	2484	ditch	c.150	500	heavily abraded; poor condition	LIA; LIA-Rom; Rom

Table 25. Quantification of quern

Table 25 shows that the material deriving from fills that contain prehistoric and Roman pottery consists of small and highly abraded fragments; by contrast, the lava quern from the fills with medieval pottery consists of larger pieces in relatively good condition. Lava quern was imported in both the Roman and medieval periods and its presence in features of both dates is not inconsistent. The difference in the condition between the assemblages can be explained by the additional time that the Roman material had spent in the ground where it was subject to weathering; when excavated, the Roman date material was also often encountered as relatively substantial fragments, however, these quickly disintegrated on their removal from the ground.

Better preserved querns fashioned from other materials such as millstone grit and Hertfordshire Pudding Stone are discussed in section 5.4.2 with the other small finds.

5.3.8 Slag

Introduction and methodology

A medium quantity of material (37kg), initially identified as slag, was recovered during the manual excavation of the site. Additional material from soil samples was also included for examination.

For the assessment, the material was examined by eye and tested with a magnet. The assemblage was categorised on the basis of morphology; a magnet was used to test for

iron-rich material and detect smithing micro-slugs in the soil adhering to slags. Each slag or other material type in each context was weighed except for smithing hearth bottoms, which were individually weighed and measured for statistical purposes. Quantification data and details are given in Appendix 4.9, in which weight (wt.) is shown in grams, and length (len.), breadth (br.) and depth (dp.) in millimetres.

Explanation of terms

Activities involving iron can take two forms, smelting or smithing: Smelting is the manufacture of iron from ore and fuel in a smelting furnace. The products are a spongy mass called an unconsolidated bloom consisting of iron with a considerable amount of slag still trapped inside, and slag (waste). Smithing involves the hot working (using a hammer) of the bloom to remove excess slag (primary smithing) or, more commonly, the hot working of one or more pieces of iron to create or to repair an object (secondary smithing). As well as bulk slags, including the smithing hearth bottom (a plano-convex slag cake which builds up under the tuyère hole - hottest part - where the air from the bellows enters the hearth), smithing generates micro-slugs; these can be hammerscale flakes from ordinary hot working of a piece of iron (making or repairing an object) and/or tiny spheres from bloom smithing or high temperature welding used to join or fuse two pieces of iron. Hammerscale, because of its tiny size, is usually only recovered by taking soil samples from fills and deposits but it is very magnetic and its presence can be detected using a magnet; it is most prevalent (thickest) in archaeological contexts in the immediate area of smithing, i.e. in the vicinity of the anvil and between it and the smithing hearth.

Slag described as undiagnostic cannot be assigned to smelting or smithing either because of morphology or because it has been broken up during deposition, re-deposition or excavation. Other types of debris in an assemblage may derive from variety of high temperature activities, including domestic fires, and cannot be taken on their own to indicate iron-working was taking place. These include fired clay, vitrified hearth lining, cinder and fuel ash slag. If found in association with iron smelting and/or smithing slag, they are almost certainly products of the process.

Key groups

The key groups are those from possible smelting furnaces and pits with smithing debris. Among these features are pits 4109 and 4113, and furnace 4117.

Discussion of the assemblage

The assemblage appears to derive from both smelting and smithing activity. With the exception of the complete (or almost complete) smithing hearth bottoms, the slag is very fragmentary and has probably undergone re-deposition, perhaps more than once. Owing to the absence of firm dating for features, it is not yet possible to say in which periods the ironworking activity took place. Hopefully, this problem will be resolved at publication analysis.

Smelting

No large voids, produced by the burning-out of the large charcoal pieces packed amongst the ore during the smelting process, were present in the possible smelting slags, which is slightly unusual if the slag is of Iron Age date. The slag is also surprisingly low in iron (i.e. it is non-magnetic), indicating an efficient extraction of iron from the ore during the process.

Some large non-magnetic slag spheres were recovered amongst the slag fragments; others were occasionally incorporated in the slag itself. Large non-magnetic spheres, particularly those incorporated in slag, are usually encountered in Iron Age smelting slags.

Smithing

Ten smithing hearth bottoms were recovered. These were small but heavy, indicative of short periods of intense smithing. Their standard depth is around 50mm, implying either the same hearth being used or an adherence to one pattern of hearth. Occasional hammerscale flake and magnetic smithing spheres were recovered, but not as much as one would expect. This, again, implies re-deposition of the slag away from any foci of smithing.

Significant features for ironmaking and/or iron working were from furnace 4117, fills 4122, 4124 and 4136, which contained 18.5kg of slag. This feature contained both smelting and smithing slags, apparently thrown in together. Pit 4113, fill 4114, contained over 8kg of slag, including one smithing hearth bottom, non-magnetic spheres and some hammerscale flake.

Pit 4109, fill 4110, contained four smithing hearth bottoms, undiagnostic slag, iron, and quantities of vitrified hearth lining. The slag appears to represent debris from smithing and may, itself, have acted as a hearth for smithing. Similarly, pit 4100, fill (4101), also contained some smithing debris, including iron.

A vessel-like piece of ceramic (with a slagged interior) may be a crucible; it was recovered from fill 0899 of pit 0898. This piece needs to be extracted from the rest of the material and shown to another specialist.

There is the possibility that some of the heat-altered stone found amongst the slag represents roasted ore. These fragments are highlighted in the identification or comments columns of the slag spreadsheet; they should be examined by a geological specialist. Occasional pieces of pottery were found during examination of the slag assemblage; these are mentioned in the spreadsheet and should be removed for examination to aid dating.

5.3.9 Post-medieval glass

Three fragments of post-medieval glass were recovered from the excavation. The assemblage consists of bottle glass and plain window glass.

Part of the base of a small post-medieval bottle was found in fill 0200 of ditch 0199. It is very worn and has an irregular flat base which has a convex internal surface.

A large complete base of a green glass winebottle was present in the fill 3935 of ditch 3375. It is cylindrical in shape and has a high basal kick, indicating that it dates to the second half of the eighteenth century, probably the last quarter (Noel Hume 68).

A small fragment of irregular glass from an unstratified deposit 2008 is probably window glass even though it is uneven in thickness and dense.

5.4 Quantification and assessment of the small finds archive

5.4.1 Introduction

Two hundred and twenty-one objects were recorded as small finds and are listed by major period and material in Table 26 below. They have been fully recorded and catalogued on the database with the assistance of low powered magnification. Selected items were chosen for radiography and have been further examined using the x-rays images. The x-ray plates will be included in the archive. A complete listing is provided as Appendix 4.10. The objects were found in a total of one hundred and twenty-five contexts, predominantly from the fills of pits; fewer objects were recovered from the fills of ditches, curvilinear features and post-holes.

A number of groups of finds are significant, with several pits producing larger groups of ten objects or more, for example pits *0253*, *0255* and *3006*. Pit *2424* is significant as its finds include a copper alloy chain, SF *1141* and brooch SF *1125*, both objects that it could be argued have military connections. Pit *3006* is of particular interest, as over fifteen objects of Iron Age date were collected from its fills, including a ceramic bead, four iron knives, a brooch and copper alloy vessel bindings. Pit *0058*, is also noteworthy for the group of four intact glass beads (SF's *1005*, *1014* - *16*) recovered from its fill and a further fragmented bead (SF *1022*) from a soil sample taken from the same context. The ceramic loomweights and other ceramic small finds are considered in Sections 5.4.3 while the worked flint items have been presented in Section 5.3.5.

Period	Copper alloy	Iron	Lead	Antler/bone	Glass	Ceramic	Flint	Stone
Prehistoric	3				6	69	8	2
Roman	15	5		1	2			5
Saxon	1							
Medieval	1	4						
Post medieval		1			1			
Uncertain	10	72	3	2		4		6
Total	30	82	3	3	9	73	8	13

Table 26. Breakdown of small finds by date and material type

Overall condition

The metalwork is generally in poor condition, with corrosion products evident. The ironwork is particularly unstable. Several of the glass beads are also friable and unstable.

5.4.2 The assemblage

Late Iron Age and Roman

One hundred and seven objects have been dated to the later Iron Age and Roman periods. The assemblage is dominated by pieces of triangular loomweight, with sixty-eight small find numbers being issued to those. Of note in the assemblage are Iron Age glass beads, copper alloy brooches, a copper alloy chain and copper alloy bindings from a vessel or tankard, a ceramic bead/spindle whorl and four iron knives.

Copper alloy

Nine brooches were recovered from the excavation, four of which were from unstratified deposits; the remainder were found in the fills of pits and ditches. They are predominantly of later Iron Age to early Roman date and include two Iron Age forms, one a Nauheim derivative and one an early La Tene form; one early rosette type; two Colchester derivative types; three Hod Hill types and a later headstud brooch. Where possible at this stage, the brooches have been related to Mackreth's (2011a) typology. Only two of the brooches are near complete, with the Iron Age examples being more fragmentary and in poor condition.

SF 1210 (U/S context 0001)

Possible fragment of the bow of an Iron Age La Tene style brooch. It is elongate with a swollen centre; tapering from the centre to each end. Circular in section and slightly curved in profile.

SF 1097 (slot 2146)

Two pieces of an incomplete Nauheim derivative brooch in poor condition. One piece is the pin with a single coil. The second piece is the bow; this is D-shaped in section and has an incomplete catchplate. The bow tapers towards the catchplate and is decorated at the base with transverse grooves. The surface of the brooch is corroded and pitted. It is an Iron Age type, dating c.AD 10-100. A similar one was found at Hacheston, Blagg *et al*, 2004, 90, fig. 61, no. 2. It is possibly a Mackreth type 3b (2011b, 6, pl.3, no.3720).

SF 1137 (ditch 0152)

Incomplete Late Iron Age - early Roman rosette type brooch. The spring, wings and pin are missing. The bow consists of a disc-shaped terminal and fan-tail-shaped foot. The disc (diameter 13mm) is perforated centrally and decorated with radiating grooves. The foot is decorated with transverse mouldings and also appears pierced on a lower edge. It is similar to Hattatt (2000, nos.284 and 285). Date: AD 25-60. It is possibly a Mackreth type 8b (2011b, 21, pl.18, nos.6012/6025). As with the Hod Hill brooches, rosette brooches were imported into Britain from Gaul in the early 1st century AD possibly between c.AD 30-65.

SF 1066 (U/S context 0001)

Bow and wings of a brooch, pin and catch-plate missing. It is likely to be a Colchester derivative hinged type. The wings form a cylindrical case around the axis bar. The bow has a central single ridge and is 'D' shaped in section; it is incomplete

as the end is missing. Comparable to an example from Hacheston (Blagg *et al.* 2004, 97) that dates between AD 43-100. It is possibly a Mackreth type 5c (2011b, 61, pl.58, no.2442).

SF 1102 (pit 2324)

Near complete Colchester derivative hinged, cast brooch. The cylindrical wings are folded around the axis bar on which the pin is hinged in the centre. The catchplate is not pierced. The bow is D shaped in section with transverse mouldings along its length. The wings also have pairs of mouldings. It has a silvered exterior. It has a close parallel from Hacheston (Blagg *et al.* 2004, 98, fig.65, no.133). Date range: AD 43-120. It appears closest to Mackreth's bead and reel type 8b (2011b, pl.59 and 60, possibly no.2652), which is a late 1st to early 2nd century AD form. Mackreth (2011a, 91) suggests this type could be from Norfolk, possibly disseminated with other traded goods along the waterways.

SF 1090 (U/S context 0001)

A Hod Hill type brooch with upper flat bow that is triangular and flat, decorated with two oblique lines forming a triangle that is visible on the x-ray. The bow ends with a wing made up of a boss and cross moulding; only one boss survives. The lower part of the bow is flat and elongate; the two sections are separated by a moulded horizontal ridge. The brooch is incomplete with only part of the catch-plate surviving; the pin is missing. It is 1st century in date. It compares to an example from Hacheston (Blagg *et al.* 2004, 90, fig.61, no.21). It is either a Mackreth type 5a (2011b, 98, pl.95, no.9269) or a type 5b (2011b, 98, pl.95, no.12522), though it is not a close match to either. It is of note that Hod Hill type brooches are continental imports that arrived as a fully developed form with the army in the first few years following the conquest. Mackreth (2011a, 133) suggests that the form may have been a continued preferred type for the military and whilst the source of their manufacture is uncertain, a single shipload of brooches may be sufficient to account for all those yet found in Iron Age and Roman Britain.

SF 1125 (pit 2424)

Fragment of bow and catchplate of a Hod Hill type brooch with flat, tapering bow. The bow has reeding parallel to the edges, but the condition is poor so it is difficult to make out detail. Similar to a Hacheston example (Blagg *et al.* 2004, 90, fig.61, no.28). Date: AD 43-75. It is a Mackreth type 10a (2011b, 99, pl.96, no.9417).

SF 1158 (pit 3006)

Remains of a burnt/melted brooch, maybe for recycling. Part of the 'wing' or top of the brooch is visible with ribbed decoration. Possibly a Hod Hill type brooch of 1st century AD.

SF 1139 (U/S context 0001)

Near complete headstud brooch, missing the chainloop. The outer face of the head has short, flat wings decorated with transverse grooves. To the reverse is a narrow cylinder with a slot to hold the pin. Pin is complete and *in situ*. The bow is rectangular in section. The outer bow face is decorated with a raised stud containing a central knob. On the outer face of the lower bow, below the headstud, is a row of recessed lozenges that would have held enamel. The bow ends in two moulded horizontal ridges and a single flattened foot knob. Remains of catchplate on reverse. Date: AD 75-200. It is a Mackreth type 5a (2011b, 74, pl.72).

In addition to the brooches, the small finds assemblage contains other items of personal adornment as well as household objects such as an intricate chain that reinforces continental trading links; objects of leisure; domestic items such as knives and keys as well as an array of fixtures and fittings and small unidentifiable strips. Overall the assemblage reflects an element of wealth that may be a reflection of the status of the local community or might be associated with an outside influence such as the Roman military. The majority of the items were found in the fills of pits.

SF 1112 (pit 2424)

At least fifteen lengths of a hanging chain were retrieved. The chain is made of oval wire loops that are folded in half and then through each other in alternating planes; this creates a finely made four-sided chain. The radiograph reveals that three lengths of the chain are attached to a suspension loop. Similar chains were used for suspending scale pans, lamps or as part of jewellery. The object compares favourably to the style of link and arrangement of chain lengths as seen in the chain of the lamp found in Open Area 43, Poultry, in the vicinity of the Walbrook crossing, London (Hill & Rowsome 2011, 118, fig.111, S159). The Poultry example likely dates to the mid-1st century AD and is an imported object from the Continent, similar to lamps found in Gaul and Italy (Hill & Rowsome 2011, 119). Such an item is significant as it reflects the use of high quality domestic objects. Wardle (2011, 503) notes that lamps suspended by chains are rare in Britain, although hangers are occasionally found, such as one from Colchester (Crummy 1983, 80, fig.84).

SF's 1157 and 1160 (pit 3006)

Fragments of binding, likely from the same object. In total there are fourteen pieces; two are large pieces of copper alloy sheet curved in profile, one of which is now fragmentary. They are convex in profile with flatter lips. One of the pieces has an *in situ* rivet. Twelve additional fragments of sheet are rolled into a tube. There is also an S-shaped strip, rectangular in section. All are in poor condition. The larger pieces could have a diameter of 180mm. It is possible that they are curved sheet fittings similar to those reported recently on a yew tankard from Pentewan, Cornwall that dates to between 1st century BC and 1st century AD and is on display in the Cornwall Museum.

SF 1161 (pit 3006)

One large and other smaller fragments of a rolled copper alloy sheet. It forms a tube. Possibly part of the same object as SF's 1157 and 1160.

SF 1104 (pit 2391)

Cast, crescent shaped terminal with central, broken shank. The faces of the crescent are flat and undecorated. It is of uncertain function. Possibly a folding spoon handle terminal, comparable to (Walton 2014).

SF 1105 (curvilinear feature 2394)

Object with flattened globular terminal and shank that is ovoid in section and broken. The surface is pitted. Similar to globular nails in Crummy (1983, 115, fig.116).

SF 1067 (pit 0900)

Hair pin with button shaped knob head with two collars below, separating it from the shank. The shank tapers to a point that is bent and incomplete; comparable to Cool's Button Head group 8 (1991). Date: AD 43-200.

SF 1211 (U/S context 0001)

Annular object with one flattened side. Probably a terret ring or part of a strap junction. It is circular in plan and D-shaped in section. The central perforation measures 8mm in diameter. Worn exterior surface. It could be an example of Lewis' Type 2 form of simple terrets that have considerable diversity within the category, as well as longevity and broad distribution (Lewis 2015, 88).

SF 1141 (ditch 0152)

Incomplete copper alloy needle with slightly tapered, perforated head. The eye is elongate with a groove above and below it. The shaft is circular in section and tapers to a missing tip; a Crummy Type 3, dating to between the 3rd and 4th century AD. Similar example from Colchester (Crummy 1983, 66, fig.70, no.1993).

SF 1001 (layer 0005)

Complete gaming counter, circular in plan; plano-convex in profile. The surfaces are smooth with some pitting. Whilst Roman gaming counters are predominantly glass and bone, examples in copper alloy and lead are recorded on the Portable Antiquities Scheme database (Byard 2012).

Iron

The assemblage of iron objects is dominated by domestic items such as knives and keys, as well as structural fittings. There is little evidence for crafts in the form of tools. Unidentified strips were also retrieved (SF's 1012 and 1056) along with a number of nails.

Objects

SF 1070 (pit 0902)

An incomplete latch lifter. It is a curved iron rod, rectangular in section, with a flattened terminal. Latch lifters emerged in Britain in the Late Iron Age and were in widespread use during the Roman period (Manning 1985, 88). They are simple types of keys with standardised forms as illustrated in (Manning 1985, pl.38-39). Comparable to an example from Colchester (Crummy 1983, 125, fig.138).

SF 1088 (pit 2014)

Piece of a curved iron strip, rectangular in section. From the side is a flat, two-pronged curving finial. Possibly part of a griddle iron. Found in a pit with Late Iron Age and Roman pottery.

SF 1115 (curvilinear feature 2394)

Penannular spiral ring or ferrule with overlapping terminals. The ring is square in section. The terminals are rounded. Two examples were recovered during excavations at Baldock (Manning & Scott 1986, 161, fig.69, nos.584 and 585); one is 3rd century AD in date, the other 1st century AD. Manning & Scott (1986, 160) note that ferrules of this type are not uncommon.

SF 1147 (pit 3006)

Incomplete short, curved knife blade of class 3 type, as defined by Sellwood (1991, 342). The blade has a concave upper edge and a convex cutting edge; it has a flat tang with two iron rivets *in situ* for attaching to handle plates of wood or bone. It compares well to the example from Danebury illustrated in Cunliffe (1991, 336, fig.7.11, no. 2.233).

SF 1148 (pit 3006)

Incomplete knife that has a blade that curves down towards the missing tip; the upper edge is concave and the lower cutting edge is convex. The tang is rectangular in section and centrally placed with shoulders that are sloped. It is comparable to the Class 2 blades found at Danebury (Cunliffe 1984, 350, fig.7.10). Sellwood (1984, 351) states that the variation in the blade types found at Danebury and comparable sites, even within a particular class, reflects the range of functions they were utilised for.

SF 1150 (pit 3006)

Ovoid shaped piece of corroded and encrusted iron. The radiograph shows a central, circular perforation. Perforated iron discs were excavated at Danbury (Cunliffe 1991, 350, fig.7.25, no.2.350).

SF 1151 (pit 3006)

Heavily encrusted/corroded object, possibly an incomplete tanged knife blade. The back curves up from the tang which is rectangular in section. There is a sloping shoulder to a straight cutting edge. Possibly of the same class as SF 1148.

SF 1202 (pit 3900).

Co-joining fragments of a tanged leaf-shaped blade. The blade is elongate with convex edges that taper to a missing tip. The separate tang piece tapers and is rectangular in section. It is corroded and heavily encrusted with dirt. Following the

classification used from Danebury, it falls into the Class 2 category of knives, which have pointed tangs for inserting into a handle (Sellwood 1991, 342) and is comparable Cunliffe (1991, 336, fig.7.11, no.2.231).

SF 1207 (U/S context 0001)

Incomplete lift key or slide key. It is elongate with a stem that is circular in section and extends into a discoidal bow that is perforated. The stem terminates in a slightly sinuous, narrow bit with missing teeth. Examples are illustrated in Manning (1985, pl.40). L-shaped lift keys were the most common type in Roman Britain (Manning 1985, 90).

Iron Nails

Forty-three small finds numbers were allocated to fifty-three nails or nail fragments. Whilst nails are usually difficult to date, having altered stylistically little over time, forty-four of those recovered from the excavation are from contexts that allow them to be identified as Roman. A further thirteen fragments of iron nails and possible nails were recovered as general finds and not allocated small find numbers. They came from seven contexts, four pit fills, two ditch fills and the fill of a curvilinear, with the exception of one ditch, they were all Late Iron Age or Roman in date.

Several types of nails have been identified suggesting an array of functions for which they were utilised. Twenty are Manning Type 1b; all but two of these have heads that are less than 20mm in diameter. Manning (1985, 134) notes the general usefulness of the Type 1b nails; the smaller head diameter suggests that the majority of those identified here were used for joined objects of furniture or boxes. The two nails with diameters above 20mm, SF's 1117 and 1131 could be more indicative of nails utilised for structural timbers. Two nails are Manning Type 3, possibly performing a similar function to Type 1.

The nails were recovered across the site from the fills of pits and ditches with three features containing small groups of nails. Five were retrieved from pit fill 0254; six from pit fill 0256 and eight from the fills of the curvilinear feature 2394.

In addition to the nails recovered from features with Roman pottery; two were found from the fills of Iron Age pits. SF 1002 is from the fill 0051 of pit 0050 and is the shank of an object that might be a nail; SF 1149 is similarly the shank of an object that could be a nail, it was recovered from fill 3007 of pit 3006.

Bone/Antler

SF 1098 (slot 2146)

Small, flat fragment of bone decorated with the remains of three double ring and dot motifs. The exact nature of this object is unknown. It is possibly a fragment of a comb or it could be a piece of bone inlay; examples of Roman inlay from

Colchester are illustrated in Crummy (1983, 83, fig.87).

SF 1154 (pit 2665)

Two joining sections of the main beams of an antler. The coronet survives as do the stubs of three tines on the beam. The tines have been sawn off. There are further fragments of this antler beam but they are fragile and decayed.

SF 1155 (pit 2665)

Two joining sections of an antler beam/burr. The coronet survives as do three tines. The lowest tine is broken off. All three tines have sawn ends. The middle tine has an additional saw mark close to its end. The end of the beam is also sawn.

Glass

Six beads, or fragments of beads, were recorded; five from pit 0058 during the evaluation and another in the fill of ditch 0152 in the excavation phase. All are types found in circulation during the Late Iron Age period, reflecting contact and trade with the Continent; some continue to be found in Roman contexts.

SF's 1005 and 1022 (pit 0058)

SF 1005 is a decorated, globular bead made in mid-blue glass with four darker blue, circular shaped 'eyes'. Around the outer edges of the circles are two or three concentric grooves containing the remains of white glass. The small fragments of glass (SF 1022) were examined using a microscope and two circular, dark blue shaped 'eyes' were identified, suggesting that the bead is of the same type as SF 1005. This type of bead is unusual and again of continental origin or inspiration. It is initially reminiscent of beads evolving from the Arras Types (Guido 1978, 45) though with fewer 'eyes' and more concentric circles around the eye. It does not fall easily into any of Guido's categories.

SF's 1014, 1015, and 1016 (pit 0058)

Three monochrome annular beads of cobalt blue glass. These monochrome glass beads fall into Smith's Type D2 (undated, 36) category of small annular blue beads. Smith (undated, 36) suggests that these beads were continental imports via the south-west, possibly via Meare and Glastonbury in the 3rd century BC. They are commonly found on Roman sites and continued in use into the 8th century AD.

SF 1132 (ditch 0152)

Translucent cobalt blue annular glass wound bead, with a wavy pattern in white glass. Guido (1978, pl.1, no.10d) illustrates a similar bead of this style, and classifies this form of bead as Group 5A. Handmade beads with trailed decoration on translucent bright blue glass, were popular in the Late Iron Age and continued in use until the late Roman period (c.300 BC - AD 410).

SF's 1042 and 1061 (pit 0253)

Two small fragments of blue/green natural vessel glass were recovered, SF's 1042 and 1061. The glass contains few bubbles. They were recovered from pit fill 0254 in conjunction with 2nd or 3rd century date Roman pottery.

Ceramic

SF 1159 (pit 3006)

Complete ceramic bead or spindle whorl, broadly spherical with flattened ends. Central perforation measures 3.5mm in diameter at one end increasing to 5.9mm at the other. The fabric is mid brown, coarse with flint inclusions. It weighs 4.72g and measures 19.5mm in diameter and 15mm in height. Ceramic beads and other spherical ceramic objects have been found at Danebury (Poole 1984, 398; Poole, 1991, fig.7.42, no.7.85), Cadbury (Poole 2000, 188) and Gussage All Saints (Wainwright 1979 101-3, figs.77, no. 4013). In her Cadbury report, Poole (2000, 188) arbitrarily separated clay beads from spindle whorls by weight, with 5g being the dividing point. The increase in the diameter of the central perforation in the

Flixton example could be due to wear, possibly lending more weight to the object having been used as a spindle whorl. However, if this was the case it would have been for the spinning of very fine thread.

Stone

Four objects of stone were identified as pieces of rotary quernstone. Three of the rotary querns, SF's 1039, 1063 and 1143 are pieces of Hertfordshire puddingstone quern; the fourth, SF 1052, is a piece of millstone grit quernstone. SF's 1039 and 1143 are pieces of upper quernstone. Research on the puddingstone querns at Heybridge demonstrate that they generally date to 1st century AD but were possibly in use transitionally from the Late Iron Age (Major 2015). SF's 1039 and 1143 can be considered with previous findings of this type of quernstone at Flixton (Goffin 2012, 74), to further explore this transitional usage, as one was found in a pit dated as later Iron Age and another dated as Roman, 2nd or 3rd century AD. The use of millstone grit quernstones is attested from a number of Iron Age sites including Danebury (Brown 1991, 418).

SF 1039 (pit 0253).

Half of a top piece of Hertfordshire puddingstone rotary quern. The grinding base is flat and worn. It is biconical in form with a dome-shaped top. The puddingstone is a conglomerate of small to medium sized pebbles.

SF 1063 (spot find 0672)

Small piece of Hertfordshire puddingstone rotary quern. It has part of the grinding surface and domed side. The grinding surface shows wear. The puddingstone is a conglomerate of small to medium sized pebbles.

SF 1143 (pit 2701)

Incomplete puddingstone quern. The piece represents about half of the original upper stone. It is domed, classic bee-hive form with flat underside, and has remains of a central hopper. The puddingstone is a conglomerate of small to medium sized pebbles.

SF 1052 (pit 0255)

Piece of millstone grit rotary quern with no edges. The non-grinding surface is pecked. The grinding surface is worn and has concentric striations through use.

A further four pieces of stone were recovered that may have been involved with food preparation; however, their identification is more uncertain. SF's 1123, 1178, 1190 and 1191 are all blocks of stone, some of which exhibit signs of usage and may have been utilised as saddle querns.

SF 1123 (ditch 2113)

A piece of oolitic limestone. It has a smooth, flat upper surface with curved edges (roughly ovoid in plan). Possibly iron staining around the edges. It could be a small ?saddle quern, or part of a cooking pot cover similar to one found at Little Cumberton.

SF 1178 (pit 2424)

Piece of worked stone, rectangular in plan. One corner is concave. Possibly a type of ?mudstone. It tapers in height so it appears wedge shaped. Collected from the environmental sample.

SF 1190 (pit 3318)

Heat-altered sandstone block. The piece is sub-square in plan with rounded corners. The top surface is smooth and slightly concave.

SF 1191 (pit 3318)

Basalt block. The piece is sub-triangular in plan. The upper surface is smooth and concave.

Two objects were identified as possible smoothing or grinding stones. SF 1127 and 1145 are both-ovoid shaped pebbles that could have been used as smoothing stones or grinding stones with saddle querns. They were found in contexts with Roman pottery but may have been of earlier date. SF 1127 is similar to an example illustrated from Cadbury Castle (Bellamy 2000, 211, fig.106.4). SF 1127 has areas of wear from use.

Saxon

One unstratified find, an incomplete copper alloy stirrup mount was identified as Saxon in date.

SF 1179 (U/S unstratified context 0001)

Incomplete stirrup mount, possibly of William's Class A, Type 1 (Williams 1997, 26, figs.19-23). It is missing the apex and the lower section of the mount. It has a circular perforation close to the edge; the perforation measures 5mm in diameter.

The edge of the mount is lobed/worn. The front face is decorated with a herringbone pattern of engraved lines. This type of stirrup mount is dated to the 11th century AD.

Medieval

Five objects of medieval or probably medieval date were recovered; a copper alloy buckle and three iron arrowheads and an axehead.

Copper alloy

SF 1201 (U/S unstratified context 0001)

Oval buckle with composite frame, including forked spacer. The spacer plate is forked with an integral oval frame that is lipped and bevelled. The lip is triangular and notched for missing pin. There are remains of two outer plates, roughly rectangular in plan. One plate has remains of a woven girdle held *in situ* by two copper alloy rivets. Comparable to examples from London (Egan 1991, 79, fig.48, no.324). These type of composite buckle plates date from middle 14th to early 15th century.

Iron

SF 1003 (subsoil 0043)

Near complete arrowhead of probable medieval date. It has a small, leaf shaped blade retaining its open socket. The blade is proportionally shorter than the socket. It is comparable to an example from London (Ward-Perkins 1967, 69, fig.17, no.3).

Jessop (1997), in his catalogue of medieval arrowheads, suggests that these forms were mainly used for hunting, and span a wide date range from the 11th - 14th centuries.

SF 1004 (subsoil 0039)

Complete cast axehead. It has a straight back and a curved blade, curving downwards. The socket is masked by dirt, but it does have wings projecting downwards. It is comparable to example no.4, fig.14, in Ward-Perkins (1967, 62). Pottery from this context dates to late 12th - 14th centuries.

SF 1006 (post-hole 0119)

Near complete arrowhead of probable medieval date. It has a narrow, triangular shaped blade and central socketed spine. It has one barb extending to the edge of the socket; the second barb is missing. It is comparable to Jessop's (1997, fig.18) 'broadhead' form; a type popular in the 13th to 14th centuries and likely to have been used in hunting.

SF 1196 (ditch 3475)

Near complete forged iron arrowhead; the head is triangular in plan but does not appear to have been barbed. The socket tapers towards the tip and forms a central spine between the wings. The socket is circular in section. It is comparable to Jessop's (1997) early multi-purpose forms that date between the 11th - 14th centuries.

Post-medieval

SF 1062 (ditch 0407)

Half of an iron horseshoe. Heavily corroded so that the number of nail holes is masked. One nail survives *in situ*.

Uncertain date

Ninety-seven objects or fragments were recovered of uncertain function and date. A number of the objects are associated with Iron Age or Roman pottery; however, the objects are not diagnostic in themselves. Further research at the analysis stage may identify some of them further. For these objects, the attributed phase of the feature in which it they were found has been included.

In addition to the summary of items here, fragments of copper alloy waste were recovered and recorded as SF's 1079, 1065 and 1195.

Copper alloy

SF 1029 (ditch 0257; Med)

Fragment of a convex object decorated with a central, twisted looped design and a groove along one edge. It could be from a decorative boss of Roman date, examples of which were found in Colchester (Crummy 1983, 119, fig.124). It has a red surface patina.

SF 1136 (pit 2353; LIA/ERom)

Incomplete discoidal object, plano-convex in section; originally it may have had an off-centre perforation.

SF 1138, (ditch 0152; Rom, 2nd/3rd century)

Incomplete strip of copper alloy sheet, folded over along one of the narrow edges. Possibly a belt fitting/plate.

Iron

SF 1025 (pit 0255; Rom, 2nd/3rd century)

Hook formed from a piece of iron, possibly square in section; becomes a flattened terminal at curved hook end. Hook possibly used for fastening.

SF 1041 (pit 0253; Rom, 2nd/3rd century)

Shank of an iron spike. Rectangular in section; tapers to a point. No head.

SF 1043 (pit 0255; Rom, 2nd/3rd century)

Shank of an iron object broken at both terminals. The shank is curved in profile and has a trapezoidal cross section. Possibly a handle for an object.

SF 1051 (pit 0637; Rom, 2nd/3rd century)

Piece of sheet iron; broken; surviving terminal tapers to a point. V-shaped in section. Possibly the tip of a knife blade.

SF 1054 (pit 0253; Rom, 2nd/3rd century)

Fragment of a thin strip of iron. Corroded and damaged at both terminals.

SF 1057 (pit 0764; Med)

It is a rectangular iron bar, rectangular in cross section. The density of the iron shows little corrosion. On one edge it has a trapezoidal shaped protrusion that may just be a product of corrosion or could be part of the object; however, it does not show up on the x-ray.

SF 1059 (layer 0767; Med)

Piece of sheet iron, triangular in plan; slightly curved in profile. Possibly the tip of a knife blade.

SF 1068 (pit 0902; LIA/ERom)

Strip of iron with rectangular plan and tapering to a looped terminal. It is rectangular in section and curved along its longitudinal profile. It is possibly a bucket fitting similar to ones identified from Danebury, for example in Sellwood, (1984, 370; 367, fig.7.23, no.2.165).

SF 1069 (pit 0902; LIA/ERom)

Fragment of a strip of iron sheet, curved in section. Found with SF 1068, so may be part of a bucket handle/fitting.

SF 1071 (pit 0902; LIA/ERom)

Long rod of iron, circular in section; tapering at one end.

SF 1073 (pit 0902; LIA/ERom)

Piece of iron sheet/bar, rectangular in plan and section.

SF 1074 (pit 0931; LIA/ERom)

Incomplete, elongate strip of iron, tapering to a rounded terminal. Possibly part of a composite object. It is curved along its longitudinal profile.

SF 1076 (pit 0846; LIA/ERom)

Elongate rod with tapering shaft that is square in section at the tip; the opposite terminal also tapers but is flattened; more ovoid in section. Possibly a tool.

SF 1094 (pit 2118; LIA/ERom)

Corroded bar of iron; rectangular in section. Broken at one end; the opposing end has remains of a perforation. Possibly from a fitting.

SF 1101 (ditch 2182; LIA/ERom)

Corner of a solid cast iron object, L-shaped in plan, and rectangular in section.

SF 1109 (curvilinear feature 2394; LIA/ERom)

Elongate object with shank that tapers at both terminals. The shank is square in section. Possibly a tool or nail.

SF 1169 (pit 2361; LIA/ERom)

Curved strip of iron, rectangular in section. Possibly from a collar. Collected from the environmental sample.

SF 1181 (pit 3274; LIA/ERom)

Complete cast iron ring, circular in plan and square/rectangular in section. Rings such as this example have been found at Danebury and whilst they may have served a number of functions it is suggested that those found at Danebury are likely to have been attached to horse harness (Cunliffe & Poole, 1991, 353).

SF 1193 (pit 0253; Rom, 2nd/3rd century)

Fragments of an iron strip. In plan the object appears to be sub-rectangular; tapering at both ends.

SF 1194 (0637; Rom, 2nd/3rd century)

Curved strip of iron, tapering at one end.

SF 1205 (pit 3962; MIA).

Elongate object with tapering shank, trapezoidal in section. In plan the object is roughly rectangular, though wider at the head. The reverse is flat. Possibly a fitting.

SF 1206 (ditch 3974; PMed)

Incomplete object, sub-rectangular in plan, L-shaped in profile.

Lead

Three lead objects were recovered; two, SF's 1030 and 1032 are unstratified; the third, SF 1040, is from the upper fill 0254 of pit 0253. SF 1030 is a substantial bar, square in section, with the lead folded over at one end. SF 1032 is a pyramid-shaped lead weight; one terminal is square in section, tapering along the length to a pointed terminal that is rectangular in section. There are two diagonal notches on one of the faces, and a notch in the pointed terminal. Both these objects were recovered alongside prehistoric and Roman pottery.

SF 1040 (pit 0253; Rom, 2nd/3rd century)

Rectangular shaped piece of sheet lead with two surviving corners; folded back on itself at the damaged end. Possible mount or binding.

Ceramic

SF 1075, (pit 0930;LIA/ERom)

Piece of fired clay; D shaped in section; flat underside is iron stained. Possibly a fragment of a baked clay object such as a reel or spindle whorl as found at Danebury (Poole 1991, 372). However, little of the object remains making comparisons difficult.

Stone

Three objects were identified as being possible hones; they are from contexts that have pottery in them that range in date from prehistoric to medieval.

SF 1058, (layer 0757; Med)

Piece of a rectangular stone hone. Both ends are broken. The stone is a schist and is laminated. Thickness varies from one edge to another across the hone.

SF 1167 (pit 2020; Rom, 2nd/3rd century)

Rectangular shaped piece of possible mudstone; square in section. Several faces have striations on them. Possibly used as a hone.

SF 1192 (3438; EBA)

Piece of slightly heat-altered looking sandstone with a deep 'trough' shaped groove running obliquely across the broken face. This may have formed from it being used as a hone.

5.4.3 Loomweights and miscellaneous ceramic objects

The site produced sixty-nine ceramic small finds. The material consists of 496 fragments in total, weighing 17,251 grams; out of these, 391 fragments weighing 15,568 grams were identified as parts of loomweight or possibly loomweight. The material is summarised in Appendix 4.11.

Most of the loomweights are triangular dating to the later Iron Age. Such loomweights have at least three perforations, with each edge penetrated twice. The perforation angles range between 45 and 60 degrees, and the perforation diameters between 8 mm and 23 mm.

The material also includes a pyramidal or triangular loomweight fragment from pit fill 0061 (SF 1077), and two fragments from a possible cylindrical loomweight from pit fill 0771 (SF 1064). The date of both loomweights is currently unclear, but are generally considered to be Bronze Age and earlier Iron Age forms, but further work needs to be carried out at the analysis stage.

A small piece encrusted with iron-rich material or slag from pit fill 2922 is likely to come from a hearth (SF 1152). Finally, nineteen small finds could not be positively identified

as loomweight fragments. Such material was recorded as unclear types; they number 104 fragments weighing 1,667 grams.

Table 27 presents the quantification of the ceramic small finds by fabrics. The Table shows that the material exhibits two similar fabrics and their flint-tempered variants. More specifically, medium and coarse sandy clays with chalk and organic temper (msco and csco) represent 43.8% of the assemblage by fragment count, or 30.9% by weight. By contrast, the flint-tempered variants of the same fabrics represent (mscof and cscof) represent 45.2% of the assemblage by fragment count, or 62% by weight.

Fabric	Description	No.	% No.	Wt./g	% Wt./g
csco	coarse sandy with chalk and organic temper	96	19.4	2,470	14.3
cscof	coarse sandy with chalk, organic temper and flint	165	33.3	7,524	43.6
fsco	fine sandy with chalk and organic temper	8	1.6	266	1.5
fscof	fine sandy with chalk, organic temper and flint	5	1.0	284	1.6
fsv	five sandy with voids	1	0.2	38	0.2
fsvf	five sandy with voids and flint	2	0.4	85	0.5
msco	medium sandy with chalk and organic temper	121	24.4	2,867	16.6
mscof	medium sandy with chalk, organic temper and flint	59	11.9	3,173	18.4
msv	medium sandy with voids	39	7.9	544	3.2
Totals		496	100.0	17,251	100.0

Table 27. Quantification of ceramic small find fabrics

Table 28 presents the distribution of all ceramic small finds by feature type. Similarly to the fired clay, the majority of the material derived from pit fills.

Feature types	No.	% No.	Wt./g	% Wt./g
curvilinear fills	2	0.40	92	0.53
deposit layers	21	4.23	1,121	6.50
ditch fills	10	2.02	280	1.62
finds	2	0.40	202	1.17
linear fills	33	6.65	1,998	11.58
pit fills	379	76.41	10,691	61.97
slot fills	7	1.41	1,517	8.79
other fills	42	8.47	1,350	7.83
Totals	496	100.00	17,251	100.00

Table 28. Quantification of ceramic small finds by feature type

5.5 Quantification and assessment of the environmental evidence

5.5.1 Human skeletal remains

Cremated bone

Cremated bone from an unurned burial 4022 was assessed by rapid scanning. The burial is of unknown date. The cremation was processed as a bulk sample and has been sieved into four fractions. Table 29 shows the approximate bone weights by fraction.

Fraction	Total Wt./g
<2mm*	8
>2mm	144
>5mm	185
>10mm	33
Total	370

Table 29. Approximate bone weights by spit and fraction (* = unsorted)

The quantity of bone is relatively small at 370 grams, and the burial was presumably heavily truncated. The bones are in good condition, but only a small proportion is in the >10mm fraction, and most fragments appear to be pieces of long bone shaft.

Nevertheless, there are a few identifiable pieces, including at least one tooth root and some skull fragments. The bone is pale grey to white in colour and most appears to be fully calcined.

The burial appears to be that of an adult individual, based on the tooth root, which is fully formed. At present, sex is uncertain, but this may be ascertainable with further work.

Inhumed bone

A human cranium was found in pit 0401. The facial bones were missing and the cranium comprised several fragments in poor or very poor condition, few of which joined. Identifiable pieces included fragments of the right side of the frontal bone, including a large glabella and supra-orbital ridge, which suggested the individual was male. Other fragments included the rear inferior quarter of the right parietal, and other fragments which showed that the lambdoid and coronal sutures were probably unfused, although the sagittal suture appeared to be obliterated. The individual is difficult to age with any precision, but was certainly an adult. Some pitting was present on two joining

fragments of possibly frontal, which may indicate an infection or possibly healed porotic hyperostosis (related to iron deficiency), but otherwise the skull was too poor to provide evidence for pathology.

5.5.2 Animal bone

Methodology

The assessment was carried out following a modified version of guidelines by English Heritage (Davis 1992). All of the bone was scanned to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible, a record was made of ages and any other relevant information, such as pathologies. Counts and weights were taken for each context and separate counts and weights were taken for any sieved-sampled material. Counts were made for each species and group identified (e.g. mammal). Counts were also taken of bone classed as countable (Davis 1992). Measurable bones (following Von Den Driesch 1976) were counted and the totals were included in the catalogue. Information was recorded on Microsoft Excel spreadsheets for the assessment report (Appendix 4.12), while the full assessment recording is available in the digital archive.

The faunal assemblage

Quantification, provenance and preservation

A total of 6,474 grams of bone, consisting of 3,064 elements, was recovered. Material was recovered by hand-collection and sieved-sample methods, which is weighed, counted and quantified separately in Table 30.

Recovery method	No. of bags	Wt. in grams	Count of elements
Hand-collected	123	5,669	1,634
Sieved samples	29	505	1,430
Totals	152	6,474	3,064

Table 30. Quantification of the assemblage by recovery method, number of bags, weight and count

Larger amounts of bone were recovered from pit fills, with ditch fills, post-holes and other features contributing to the assemblage. A greater amount of bone was produced from fills of a probable Roman date, with other bone associated with prehistoric, medieval and later artefacts.

The material in the bone assemblage varied in condition. Some complete elements were seen, but a good deal of fragmentation of the remains had occurred from butchering and wear.

Burnt bone was recorded from thirty-four contexts, with remains varying in the degree of burning from light charring and blackening, to heavily burnt fully oxidised white remains.

Gnawing had occurred in six contexts, mostly consisting of canid gnawing; rodent gnawing seen on one cattle bone confirmed some scavenger activity.

Species and observations

At least eight species were seen in the assemblage. Cattles were the most frequent, with other mammals represented by remains of sheep/goat, pig/boar, equid and small mammals. Small mammals were seen in hand-collected and sampled bone, with remains largely consisting of hare and at least one rabbit bone present in a pit fill of a probable Roman date.

Bird bone was seen from hand-collected and sampled remains, with initial identifications including fowl and moorhen.

Butchering was observed throughout the assemblage. Evidence includes dismemberment, joint preparation, splitting of bone for marrow and skinning. Clear holes were noticed in two large cattle bones that suggest joints of meat were cooked on a spit.

There is evidence of some of the bone waste being given to domestic or working dogs, which was available for scavenging prior to burial.

Some pathologies were seen during the assessment, most of which were dental.

5.5.3 Shell

The excavation produced eighty-five shell fragments weighing 403 grams. The material derived from fifteen features, mainly pit fills, ditch fills and other deposit layers. The

material is presented in Table 31. The table includes columns with the types of shell and identified species, and the pottery spot-dates of each feature that produced it. According to the quantification, most of the material is marine native oysters and derives from medieval features. Such features produced fifty-four fragments, weighing 318 grams in total, which comprise over three quarters of the total shell assemblage.

Feature Number	Ctxt	Feature Type	Shell type	Species	No.	Wt./g	Phase
0253	0254	Pit	marine	Native oysters (<i>Ostrea edulis</i>)	8	35	Rom
0637	0638	Pit	marine	Native oysters (<i>Ostrea edulis</i>)	1	6	Rom
0640	0641	Pit	marine	Native oysters (<i>Ostrea edulis</i>)	1	1	Rom
2020	2023	Pit	marine	Native oysters (<i>Ostrea edulis</i>)	15	32	Rom
0090	0259	Ditch	terrestrial	1 snail	1	2	Med
0090	0260	Ditch	terrestrial	1 snail	1	2	Med
0235	0701	Structure	marine	Native oysters (<i>Ostrea edulis</i>)	3	13	Med
0235	0702	Structure	marine	Native oysters (<i>Ostrea edulis</i>)	21	135	Med
0235	0757	Layer	marine	Native oysters (<i>Ostrea edulis</i>)	6	48	Med
0235	0757	Layer	terrestrial	9 snails	9	18	Med
0235	0758	Layer	marine	Native oysters (<i>Ostrea edulis</i>)	2	14	Med
0235	0758	Layer	terrestrial	1 snail	1	4	Med
0235	0766	Layer	marine	Native oysters (<i>Ostrea edulis</i>)	1	9	Med
0235	0767	Layer	marine	Common whelk (<i>Buccinum undatum</i>)	1	9	Med
0235	0840	Layer	terrestrial	2 snails	2	6	Med
0764	0765	Pit	marine	Native oysters (<i>Ostrea edulis</i>)	1	9	Med
3960	3969	Ditch	terrestrial	4 snails	5	9	Med

Table 31. Quantification of shell

5.5.4 Plant macrofossils

Introduction and methods

A total of fifty-five bulk samples were collected. Feature-types sampled included pits, ditches, a metal working furnace (?), a cremation burial, a post-hole structure and a layer. Although detailed phasing was not available at the time of writing, the features sampled ranged in date from the Neolithic, Bronze Age, Iron Age, Roman and Medieval periods. The samples were all processed in full in order to assess the preservation of any plant remains present and their potential to provide useful data as part of the subsequent analysis phase of the project. Three near complete pots had their fills

excavated by hand during the post-excavation phase, and the soil recovered was floated in the same way as the bulk samples.

The samples were processed using manual water flotation/washover and the flot was collected in a 300 micron mesh sieve. The dried, flots were scanned using a binocular microscope at x16 magnification and the presence of any plant remains or artefacts are noted on Appendix 4.13. Identification of plant remains is with reference to the *New Flora of the British Isles* (Stace 1997).

For the purposes of this initial assessment either a subsample of 100ml or the total volume of flot, whichever was least, were examined. Many of the samples contained fibrous rootlet fragments in small to medium quantities; these are modern contaminants and are considered intrusive within the archaeological deposits.

The non-floating residues were collected in a 1mm mesh and sorted when dry. All artefacts/ecofacts were retained for inclusion in the finds total. The residues were also scanned with a magnet to retrieve any hammerstone or ferrous spheroids present.

Quantification

For the purposes of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded quantitatively according to the following categories:

= 1-10, ## = 11-50, ### = 51+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance:

x = rare, xx = moderate, xxx = abundant

Results

Plant macrofossils

Preservation of the plant macrofossils present is through charring and is generally poor. Wood charcoal fragments are present in all of the samples and make up the majority of the material present. Generally, the charcoal is highly comminuted but where the

fragments are large enough to allow species identification or radiocarbon dating, this is noted in Appendix 4.13 which also includes the preliminary phasing information became available after the report was written.

Charred cereal grains are present in many of the samples, mostly however, in very small numbers or as individual grains. The majority of the caryopses are fragmented and abraded making identification to species difficult or impossible. The initial counts recorded within Appendix 4.13 include fragments as well as whole caryopses. Although grains or grain fragments are present in nearly every flot, only a small number of samples has substantial quantities of cereal remains within them. Chaff remains such as glume bases or spikelet forks are also observed within only this small number of samples.

The majority of the identifiable grains are those of spelt wheat (*Triticum spelta* L.). A rounded bread wheat type (*Triticum* sp.) and barley (*Hordeum* sp.), some of which appear to be hulled, are also observed in a small number of the samples. Only six of the samples contain grains in sufficient quantities to justify quantification; two of these samples, from pit fills 0349 and 0718, provisionally dated as Late Iron Age and Early Bronze Age respectively, also contain small quantities of chaff, such as spelt wheat glume bases and wheat spikelet forks, within the scanned portions. The presence of chaff may suggest activities such as cereal processing taking place on site. Further examination of these flots is required to firm up any identifications.

Charred hazel (*Corylus* sp.) nutshell fragments are present in sixteen samples. These may represent gathered food or material incorporated within wood used as fuel. What appear to be the charred fruits of a prunoid, possible wild crab apple (*Malus sylvestis* L.) are observed within the later Iron Age pit fill 0349. These need further examination to confirm this identification.

Charred seeds are rare; grasses (Poaceae), knotweed family (Polygonaceae), cabbage family (brassicaceae), bedstraws (*Galium* sp.) and plantains (*Plantago* sp.) are all present. What appear to be corn spurrey (*Spergula arvensis* L.) seeds were identified in low numbers. Fragments of wild radish (*Raphanus rapanistrum* L.) seed pod and possibly the bulbous culm bases of false oat grass (*Arrenatherum elatius*) are also present within a small number of samples.

Uncharred seeds are more common but still only present in low numbers. Knotweed family (Polygonaceae), daisy family (Asteraceae), clover/medicks (*Trifolium/Mediago* sp.), goosefoots (*Chenopodium* sp.),ampions (*Silene* sp.), nightshades (*Solanum* sp.), speedwells (*Veronica* sp.), are all present, but as less than ten specimens at a time. The seeds of tree species such as ash (*Faxinus excelsior* L.) and elder (*Sambucus* sp.) are also observed, but again as less than ten specimens each time. Many of the species present are common weeds of cultivated or rough, open ground; however, as none of them are either charred or mineralized, it is possible that they are modern contaminants, part of the background soil seed bank, and that they are intrusive within the archaeological contexts sampled.

Other materials

Insect remains are observed within six samples; terrestrial snails, amphibian or small mammal bones are present within fourteen; no attempt has been made to identify this material for the purposes of this report.

The presence of bone fragments, some of which are burnt, are observed and recorded in Appendix 4.13, as are fired clay fragments, flake or spheroidal hammerscale and slag droplets or fragments. This material was observed during scanning under a microscope; although their presence is recorded here, they are too fragmented and too sparse to require further work by the relevant specialist, unless stated otherwise in Appendix 4.13.

Coal fragments are present in a few of the samples; these are considered to be modern and intrusive within the contexts sampled, possibly the result of steam powered agricultural machinery being used within the vicinity.

6 Significance of the data and potential for analysis

6.1 Realisation of the Original Research Aims

The following section considers how the results of the excavation and subsequent post-excavation has addressed, or has the potential to address, the revised research aims (hereafter **RA**) presented in the General Project Design for the excavation (Boulter 2013) and in Chapter 3 of this document.

General (all periods)

***RA:** The large scale of the quarrying works at Flixton has resulted in the archaeology of a wide area of the landscape to be recorded, not just targeted sites. While not immediately adjoining the previously excavated sites, the new area has the potential to add to this overview and provide useful information regarding the development and use of the landscape over time.*

Realisation: The archaeological deposits recorded within the area were for the most part comparable in date and character to those recorded in the main quarry. Consequently, there is potential to contribute to the development and use of the landscape through time with particular emphasis on the Iron Age and Roman periods. In addition, localised medieval deposits were identified which were not paralleled in the main quarry, but may be significant when considered with the medieval archaeology presently (2017 - 18) being excavated in the Homersfield extension to the south-west.

Prehistoric

The following Research Aims were identified following the evaluation, principally aimed at the Neolithic and Bronze Age deposits that had been recorded. The subsequent excavation identified a more chronologically extended sequence, possibly even continuous activity, albeit not particularly intense, from the later Bronze, through the entire Iron Age and into the Roman period. The Research Aims repeated below did not take the previously unidentified Iron Age component into account.

(Neolithic)

RA: Improve the understanding of the chronological development of Neolithic pottery (Medlycott ed. 2011, p.13).

Realisation: While the Neolithic pottery assemblage was limited, there is some potential for comparison with the far larger assemblage recovered from the other areas of the quarry (see section 6.3.2).

RA: Address the imbalance between the over-representation of monumental features in the NMP/HER (primarily due to aerial photographs) and the less visible sites (e.g. pit groups) and investigate further the relationship between the two (ibid., p.14).

Realisation: No monumental features were identified and while only a few features were recorded, principally pits, in a small way they can be considered to be contributing to addressing the imbalance.

RA: Strengthen the palaeoenvironmental sampling strategy for well-sealed Neolithic pits in order to recover macrobotanical evidence (particularly cereals) (ibid., p.14).

Realisation: Bulk samples were collected and assessed (see section 6.5.4).

(Bronze Age)

RA: Improve the understanding of regional difference in the chronological development of Bronze Age pottery (ibid., p.20 and p.21).

Realisation: While the Bronze Age pottery assemblage, particularly the earlier and middle phases, was limited, there is some potential for comparison with the far larger assemblage recovered from the other areas of the quarry (see section 6.3.2)

RA: Extending the area of study at Flixton has the potential to help explore the relationship between settlement sites and burial (ibid., p.20).

Realisation: Other than the possibility that the one unurned cremation is Bronze Age in date (to be confirmed by C14 dating), then the low density of features appeared to reflect no more than an occasional transient occupation of the site at that time. While limited, these deposits will be considered in relation to contemporary phases in the wider area of the quarry.

Late Iron Age/Roman

RA: During the evaluation, later Iron Age deposits were identified over the eastern two thirds of the new area. The features were similar in character to those previously seen at Flixton and are particularly relevant to studies involving the Iron Age to Roman transition (ibid., p.28 and p.31).

Realisation: Significant deposits covering the later Iron Age/Roman transition were recorded along with those of both Iron Age and Roman date. These provide the further opportunity to study the local effects of the Iron Age/Roman transition on a site where there was unbroken occupation that continued beyond the Boudiccan uprising and what would have been its locally disruptive aftermath within the Iceni territorial area.

Medieval

RA: During the excavation, the initial research aim will be to define and characterise the medieval deposits in greater detail. At that point, effectively the assessment stage of the project, it will be possible to reconcile the archaeology with the 'future research topics' presented in the revised framework (ibid., pp.70 - 71).

Realisation: The location of the medieval deposits close to the northern edge of the site made it possible to preserve them largely *in situ* on the grounds of the heavy costs that would have been incurred to fully excavate, assess and analyse the material. However, the partial excavation works provided significant structural and dating evidence that will be considered at the analysis stage (see 6.2.4 and 6.3.2).

Post-medieval and modern

RA: Recording of the post-medieval and modern features, mainly field boundary ditches, will add to the body of the recorded archaeological evidence regarding the development of Flixton Park.

Realisation: A small number of post-medieval and modern features were recorded which will be considered with respect to the known historical sources, principally map evidence, that documents the more recent landscape development of the area.

6.2 The potential and significance of the stratigraphic data

6.2.1 Introduction

The following sections provide a revised assessment of the stratigraphic data by period with regard to their potential for further analysis with reference, where appropriate, to the regional research agenda; Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott ed. 2011). More specific tasks relating to finds and environmental aspects of the analysis are presented in sections 6.3 - 6.5.

6.2.2 Prehistoric

Period I.c, d and d/e; Neolithic and indeterminate Late Neolithic/Early Bronze Age

Flixton Quarry has already been recognised as one of the key projects in the region where Neolithic archaeology has been excavated (ibid., 11 and 13). Previously recorded Neolithic archaeology at Flixton includes both probable domestic deposits, principally pits, and three monuments, a long barrow in FLN 069, long enclosure in FLN 091 and a post-hole circle in FLN 013, the latter already published in East Anglian Archaeology 147 (Boulter and Walton Rogers 2012).

The Neolithic features covered by this assessment comprise a small number of pits, all arguably domestic in character. A single undated cremation may be of this period but is more likely to be Bronze Age in date.

The research agenda states that future research would benefit from the exploration of the relationship between the Neolithic and Bronze Age funerary landscapes and settlement (Medlycott ed. 2011, 13), an opportunity for which is afforded by the previous

Flixton sites that, overall, are considered to be of at least regional, possibly national significance. However, the deposits recorded on the SEY 035 site were, in themselves, indicative more of a background presence with only limited direct evidence of what must have been transient activity. Stratigraphic analysis will be limited to a brief description of the features to include their relationship with the wider Neolithic deposits in the quarry and any work that is deemed necessary by the finds specialists, essentially those dealing with ceramics and worked flint, to augment their work.

Period I.e, f and g; Bronze Age

Flixton Quarry has already been recognised as one of the key projects in the region where Bronze Age archaeology has been excavated (ibid, 15, 19). Deposits include evidence for an extensive landscape of funerary monuments along with dispersed domestic activity.

The Bronze Age archaeology covered by this assessment comprises a limited number of pits, the majority of which contained finds assemblages that were domestic in character, with dating indicating a low level of activity throughout the period. While no structural evidence was recorded, the pattern broadly continues the dispersed evidence of Bronze Age domestic activity previously identified occupying a similar topographical aspect on the shallow north-west facing slopes in areas FLN 056, 057, 059, 062 and 091 to the north-east (Boulter 2006, 2017 and forthcoming). A single undated cremation may also be of this period.

The significance of this material is based on its association with the wider context of the Flixton excavations which, together, have the potential to be of regional or even national importance. However, stratigraphic analysis will be limited to a brief description of the features to include their relationship with the wider Bronze Age deposits in the quarry and any work that is deemed necessary by the finds specialists, essentially those dealing with ceramics and worked flint, to augment their work. There is potential to date the unurned cremation by undertaking a C14 dating determination.

Period H and I; Iron Age

Flixton Quarry has already been recognised as one of the key projects in the region where Iron Age archaeology has been excavated (Medlycott ed. 2011, 22 and 25), with

the earlier and later Iron Age particularly well represented, although Middle Iron Age deposits were recorded in 091 (Boulter 2017).

The deposits recorded on the SEY 035 site appear to suggest continual activity through from the Bronze Age, increasing in intensity from a low level in the earlier Iron Age to a high point in the latest Iron Age/earlier Roman period (see below).

Similarly to the Neolithic and Bronze Age deposits, the significance of this material is based primarily on it adding to the body of information previously gleaned from the quarry sites with other requirements governed by what is considered necessary by the finds specialists.

6.2.3 Late Iron Age and Roman

Flixton Quarry has already been recognised as one of the key projects in the region where significant Late Iron Age and Roman archaeology has been excavated (Medlycott ed. 2011, 25, 33 and 36).

Period II.a; Late Iron Age and Early Roman

The deposits of later Iron Age and earlier Roman date represented the most intense period of activity on the site with features recorded over the majority of the excavated area with the exception of the elevated area of heavy clay towards the south-west. While there were some large finds assemblages, there remained some ambiguity as to the dating with regards a pre- and post-conquest date, although there was clearly unbroken occupation of the site throughout the entire period that continued on into the Roman period, possibly encroaching into the 4th century AD. Significantly, there were a large number, at least thirty-four, four and six-post structures, presumably storage facilities, recorded in a relatively discrete area. This appears to be unparalleled in the region for one site. There was no accompanying, round-houses, a scenario seen elsewhere at Flixton (Boulter 2006 and forthcoming), although in that instance with structures believed to be of Early Iron Age date.

Not only is the archaeology of this period significant in terms of it adding to the corpus of information previously excavated at Flixton, but also has the potential to contribute to addressing some of the current research aims set out in the revisited regional research

agenda (Medlycott ed. 2011). Those considered to be pertinent to later Iron Age and Roman phases of this project are listed after the Roman section (see below).

Period II.b; Roman (c.2nd – 4th century)

While the number of features securely attributed a date beyond the end of the 1st century AD was small, essentially a few pits and two long-lived boundary ditches, the associated finds assemblages were relatively large. This suggests that while the area of activity had contracted towards the north-east, or possibly simply shifted laterally, beyond the edges of the excavation, that it was still of some significance.

Future later Iron Age and Roman research topics, identified in the revised regional research agenda, to which this site has the potential to contribute, include the following specific areas of study. These will also require input from other strands of evidence such as the finds assemblages:

- Iron Age/Roman transition and Romanisation (ibid. 31 and 47)
- Rural settlements and landscapes (ibid. 47)
- Manufacturing and industry (ibid. 30 and 48)
- The agrarian economy (ibid. 31)
- Regional differences, tribal polities (ibid. 32)

6.2.4 Medieval

Until relatively recently, the medieval period was not well represented at Flixton, with positively attributed features limited to an enigmatic rectangular enclosure in areas FLN 061 and 068 (Boulter forthcoming), that was originally thought to be Early Anglo-Saxon in date (Boulter 2006) and the ditches and structural evidence in SEY 035 covered by this document. However, medieval deposits currently being recorded in another extension to Flixton Quarry, SEY 038, some 600m to the west-south-west of SEY 035, have added significantly to this. The SEY 038 deposits include a series of ditched

enclosures and associated post-built structures, some of which were substantial in size which, arguably, is indicative of high status.

On that basis, given that full excavation of the SEY 035 features was not undertaken, resulting in an incomplete record that cannot on its own be meaningfully interpreted, it is suggested from a publication point of view, that this material is ultimately disseminated with the SEY 038 site. The analysis of the SEY 038 site will almost certainly require a programme of documentary search which may also help to elucidate what was going on at SEY 035 at around about the same time. However, it would be sensible and financially prudent to undertake the analysis tasks on the SEY 035 material, principally the ceramic finds assemblage and descriptive text, within this tranche of analysis. In terms of the revised regional research agenda, the two defined future research topics that may have some relevance to the Flixton sites are Landscapes and Rural settlement (Medlycott ed. 2011, 70).

6.2.5 Post-medieval

Other than attempting to rationalise the boundary ditches recorded on the site with those known from early maps, there is little potential for further analysis of the post-medieval deposits.

6.2.6 Undated

Given that by definition, the undated features cannot be attributed to one of the securely dated phases, then the potential for further analysis of this material, other than inclusion in the overall site plan, is negligible.

6.3 The potential and significance of the finds data

6.3.1 Introduction

In terms of the revised regional research agenda, the finds analysis themes presented below all have the potential to contribute to the future research topics in Section 6.2 (The potential and significance of the stratigraphic data).

The site reflects long-term and effectively continuous human occupation in the area, particularly between the earlier Neolithic and Roman periods, with the most significant associated with the later Iron Age and Roman phases. In addition, there was evidence for a discrete area of activity in the medieval period. The material evidence recorded at the site bears significant potential for the study of human activities during these chronological phases, including the investigation of various types of craft production in the area. Furthermore, the location of the site at South Elmham St Mary alias Homersfield, in close proximity with the previous Flixton Quarry excavations and other important sites along the Waveney Valley, add additional potential for the study of human activities in the broader region.

Evidence from SEY 035 can be examined in conjunction with contemporary material from Flixton, with focus on specific aspects of material culture and periods of significant historical importance. Of particular interest is the study of craft production and technological advances, together with the social interactions of different cultural groups during the Late Iron Age and Roman transition, which is likely to shed light on the Icenian-Roman interactions of the 1st century AD. The pottery, fired clay, CBM, metallurgy slag, iron objects and copper alloy small finds from the site offer such potential.

Furthermore, the site is important for the investigation of prehistoric activities with some evidence of Palaeolithic and Mesolithic flint tools along with the continuity of flint working noted in the broader region during the Neolithic, Bronze Age and Iron Age that can be studied in conjunction with information extracted from the analysis of the SEY 035 material. Finally, the medieval artefacts from the site can offer further potential to the study a hitherto underrepresented phase of activity from the Flixton sites and this part of the Waveney Valley .

6.3.2 Pottery

Prehistoric and Roman pottery

The large quantities of prehistoric and Roman pottery from the site offer great potential in investigating the types of activities taking place in the vicinity. Both assemblages need to be discussed together in relation to their spatial and chronological distribution, which will offer useful information in understanding production and consumption

patterns in the area, particularly during the LIA/Roman transition. This period is currently underexplored in relation to the Suffolk-Norfolk border.

The presence of a wide variety of later prehistoric and Roman typologies, produced in different yet contemporary fabrics, bears additional potential for investigation of ceramic forms and technologies. A comparative study could shed light on the evolution of ceramic shapes and fabrics towards the southern edge of the Icenian territory, and present a thorough discussion on the advancement from typical prehistoric to Roman potting traditions. A study on transitional and hybrid wares, also targeting the presence of assemblages with combined stylistic and technological characteristics, is likely to add important information to our current understanding of pottery production in the area.

Post-Roman pottery

This assemblage is one of several recently excavated large rural medieval groups in Suffolk. Such a large assemblage has very high potential to further our knowledge of medieval pottery of this period in the region.

If it is possible to produce a narrow phasing structure for the site, or if a Harris matrix is available, it will be of value to study the distribution of the main medieval wares and their association with earlier and later fabrics in relation to their stratigraphic positions. This may enable a tightening of date ranges for the forms and/or fabrics which will be of value for the study of future Suffolk assemblages.

Comparison of the assemblage with groups recently excavated at Reydon, Weybread, and groups from other Suffolk rural sites, as well as sites in and around Bungay and Beccles will help to place the group in context.

Spatial distribution of the pottery will almost certainly be of value in determining the growth and decline of areas within the site, and use of pottery associated with the structural remains.

In summary, the potential of this assemblage is to provide evidence for dating and phasing of the site; pottery use, consumption and possibly manufacture; trade links both within and outside East Anglia; and status of the occupants.

6.3.3 Ceramic building material (CBM)

This is a small and heterogenous assemblage which includes a few fragments of the Roman and post-medieval periods, mostly in poor condition. It provides little of interpretative value for this site, but does suggest the presence of a substantial Roman structure in the vicinity.

The CBM has been fully catalogued and a brief report has been prepared. No site plans or phasing were available at the time of writing so the CBM has not been placed in context in terms of the site. The Roman tile should be included in the final report, and it should be retained. No further work is required on the post-medieval CBM and this group could be discarded.

6.3.4 Fired clay

The fired clay from the site contains briquetage, possible kiln furniture, possible loomweights, pieces from floors and fragments from various structural elements. Such material can offer important information on the functions of the site, as well as information on human domestic activities. This material needs to be discussed in relation to its spatial and chronological distribution, and it needs to be paralleled with the pottery. Both ceramic types can be combined in the final discussion of all artefact types in order to identify the broader functions of the site, particularly in relation to its prehistoric and Roman phases. For the same reason, the identification of different types of fired clay needs to be more detailed.

6.3.5 Worked Flint

Analysis of the worked flint will add to the results of work already completed and currently proposed for Flixton Park Quarry where material of Lower or Middle Palaeolithic to Iron Age date is recorded (Bates 2012, in prep.; 2016). It will assist in identifying features and areas of activity and thus, in interpretation of the excavated evidence and landscape use over a more extensive area. The present assemblage has potential to contribute to the understanding of lithic chronologies in the region and may have particular relevance in terms of identifying trends in flint-working during the Bronze

Age and Iron Age (Lithic Studies Society 2004; Historic England 2015; Medlycott 2011, 21). Evidence for flint-working during these later periods has previously been recorded, in differing amounts, from several nearby areas of the site (e.g. FLN 056, 057, 059, 061, 062, 063, 064, 065, 068, 069, 086, 088, 090 and 091 (Bates, in prep.).

The potential of the flint lies partly in its analysis in relation to ceramic dates and context types. Analysis has potential to help date excavated deposits or features either in conjunction with pottery or, possibly, in the absence of ceramic evidence from some features. It may also suggest the contemporaneity or residual nature of the material within contexts. It will probably be the case, once initial analysis of the flint by context is undertaken, that specific group/feature/context assemblages are identified as of particular potential significance and can be more closely considered. It seems that relatively few retouched tools of diagnostic types are present; this is probably due to the irregular and 'miscellaneous' nature of much of the modified flint and would concur with a later prehistoric date for much of the assemblage. It is possible that closer consideration of the irregular pieces may suggest particular patterns of tool use.

There is also the potential for comparison of the present assemblage with those previously excavated at Flixton Park, and elsewhere. Comparison with flint from the Flixton sites might reveal variations in the make-up of the lithic assemblages from different periods and within the wider area.

6.3.6 Quern

All quern has been recorded, catalogued and discussed. No further work is necessary.

6.3.7 Slag

The assemblage is of regional importance at this time. Depending on revised dating it may become more important for the period in which it took place.

6.3.8 Glass

No further work is required on the glass assemblage.

6.4 The potential and significance of the small finds data

6.4.1 Small finds (other than ceramic)

The small finds assemblage is notable for the number of objects that fall into the transitional period from the Late Iron Age to the Roman period. It is of regional significance and has the potential to further the understanding of this transition in the Waveney Valley which lies towards the southern edge of the area occupied by the Iceni.

The assemblage is of interest because the objects reflect predominantly domestic life yet with some possibly indicating a military presence; it therefore has the potential to assist in understanding the relations and nature of contact between the local Icenian tribe and the Roman empire during the period which spanned the 1st century and their major uprising.

Many of the objects, including the early brooches, the copper alloy chain and the glass beads offer the potential for trade networks to be explored during this transitional period, both within East Anglia and with the Continent. Additionally, they allow the status of the occupants to be examined, and their access to wealth.

A small number of the finds discussed here have the potential to show aspects of craft production, for example, the antler beams. Further analysis of these objects may demonstrate small scale antler working. There are also items such as the copper alloy needle and the ceramic spindle whorl that offer some insight towards the nature of textile production on the site, and should be considered alongside the loomweights.

The small finds of post-Roman date are few, and are casual losses or discarded debris from the later usage of the site. The iron arrowheads of medieval date have the potential to demonstrate the use of the site for hunting activities.

No further work is required on the iron nails.

6.4.2 Loomweights and other ceramic small finds

Ceramic small finds include a large number of loomweights and possible loomweights. Such material is datable and needs to be discussed in relation to its spatial distribution,

and in conjunction with the pottery. Such comparison is not only likely to confirm the dates of the contexts that produced both artefact categories, but could also offer important information on the domestic activities at the site.

6.5 The potential and significance of environmental evidence

6.5.1 Human skeletal remains

No further work is required on the human skull.

The cremation burial has not yet been fully recorded or analysed and, as a minimum standard, it will require a full catalogue and report for archive and/or publication. The cremated remains should be discussed in terms of their context, and in comparison, with other contemporary cremation burials in the area. A C14 date is recommended in the absence of other dating options.

6.5.2 Animal bone

The assemblage has the potential to provide information on species present; use of wild and domestic species; and methods of butchering and cooking.

Sample material was only briefly scanned and quantified for the assessment; this needs to be sorted and examined in greater detail, and be compared with the hand-collected material. Initial observations with the sampled material showed some bird and small mammal remains and there is potential for the sample bone to yield further species.

Examination of the relatively frequent burnt remains is required to determine their provenance and to eliminate the possibility of human remains present in the assemblage, possibly associated with cremations.

Antler was noted in pit 2665 which was found with bone recorded as articulated, consisting of cattle ribs, vertebrae and a single foot bone. Species of the antlers and type of objects if worked, would prove useful for the faunal assemblage analysis.

Furthermore, any photographs of the bone and antler in this feature and context sheets could aid faunal interpretation.

A rabbit bone was seen in a pit fill of a probable Roman date. Given the scarcity of this species in Roman deposits, if not intrusive, it could add to the increasing but rare data for rabbit in Roman Britain. It is likely that rabbits were brought in to this country in small numbers for breeding for meat, or even as dried meat. Small mammal bone needs to be identified fully where possible and examined for butchering. Deposits need to be free of evidence of animal burrowing, which would rule out intrusive remains.

6.5.3 Shell

All shell has been recorded and catalogued. No further work is necessary.

6.5.4 Plant macrofossils

In general, the samples are poor in terms of identifiable material. The assemblages present, however, within these samples, are consistent with remains previously recorded from Flixton quarry (Fryer 2012; Fryer & West 2017). The majority of the material recovered appears to come from pit fills of Iron Age date, although features dating from the Early Bronze Age, Neolithic, Roman and Medieval periods also produced small quantities of material. The mix of charred plant remains, animal bone fragments and other detritus is likely to represent domestic waste, particularly from food preparation. The sparse nature of the material generally however means that few conclusions can be made other than the fact that agricultural, light industrial and domestic activities were taking place in the vicinity.

Only six samples produced sufficient concentrations of identifiable plant macrofossils to justify quantification (c.100+specimens) and it is recommended that these samples should be re-examined as part of the analysis stage (Appendix 4.13). One sample was from an Early Bronze Age pit fill (0718), three samples were from Late Iron Age pit fills (0349, 0386, 3024), one from a layer (0834) within Medieval post-hole structure (0235), and a single as yet undated pit fill (4022), which containing numerous charred seeds.

Examination of these samples and more detailed information regarding the phasing of

the activity on this site may provide evidence for the development of agriculture and a transition from a more transient hunter-gatherer lifestyle. The presence of cereals along with the possible remains of gathered food resources in the form of nutshells and charred fruits may add data, however sparse, to the study of this transitional period (McClatchie *et al.*, 2014). Late Iron Age and Roman remains may be able to provide information regarding this transitional period, and how Romans influenced agricultural practices and diet.

Also of interest are small quantities of hammerscale and slag recovered from two samples, pit fill 4114 and metal working furnace 4117, fill 4122. Hammerscale is produced during smithing and the material recovered from adjacent features suggests metal working was taking place in the vicinity and waste material was deliberately disposed of within these features. It is recommended that the material recovered from these two samples is submitted to the relevant metal working specialist to be examined along with any hand-collected material from these contexts.

All flots from this excavation should be retained as part of the site archive.

7 Updated research aims and task list

7.1 Introduction

The following section presents the updated research aims and required analysis tasks, both stratigraphic and finds, by period.

7.2 Updated research aims

RA 1: To develop an understanding of the archaeology of the SEY 035 site within its local, regional, national and, where appropriate, international contexts.

RA 2: To undertake a series of analysis tasks (see below) which will result in the preparation of an East Anglian Archaeology monograph publication (Volume IV of the Flixton series).

7.3 Stratigraphic analysis

Analysis tasks will include:

- Prepare publication synopsis for EAA.
- Discuss the prehistoric features (Neolithic and Bronze Age) in relation to similarly dated deposits recorded elsewhere in the quarry.
- Research the available literature for local, regional and national parallels to help understand the character of the Iron Age – Roman occupation in both terms of its local (previously excavated sites at Flixton) and wider context.
- Research the available literature for local, regional and national parallels to help understand the character of the medieval deposits in both terms of their local (particularly the Homersfield Extension) and wider context.
- Using available information from specialist finds analysis and stratigraphy to help target samples for radiocarbon dating (estimate five determinations to include

Grooved Ware features, unurned cremation, Iron Age/Roman buildings and industrial areas).

- Update site database and digital phase plans with additional information gleaned from specialist analysis.
- Prepare first draft of the stratigraphic elements of the publication text for submission to EAA.
- Select content of general illustrations for publication.
- Prepare draft general illustrations for publication.
- Select general photographic images for publication.
- Integrate all specialist reports and illustrations into overall first draft publication text for submission to EAA.
- Update site archive as required.

7.4 Bulk finds

7.4.1 Pottery

Prehistoric and Roman pottery

Prehistoric and roman pottery needs to be discussed in relation to its chronological and spatial distribution. Previously published material from Flixton will be used for parallels and comparisons. Vessel typologies need to be analysed separately in relation to site function, and for understanding the evolution of ceramic technologies in the area. One hundred and seven pottery sherds have been initially selected for illustration; however, this number may be subject to revision during analysis. The pottery recovered from the soil samples taken in the initial evaluation needs to be included in the final catalogue, and discussed together with the rest of the material.

Medieval and post-medieval pottery

The assemblage has been recorded in full and no further cataloguing is required. The pottery needs to be put into context with relation to site phasing and spatial distribution, and a more detailed publication report produced. Up to seven vessels are recommended for illustration (see Appendix 4.3)

It is recommended that samples should be selected for thin section and/or chemical analysis. It would be of value to compare the 'WVCW' and 'HOLL' finds from this site with similar wares identified at Reydon (data for which are forthcoming). Up to six samples could be selected for this.

7.4.2 CBM

A brief study of the distribution of the Roman tile on the site may be of value, in conjunction with CBM recovered from earlier excavations in the quarry.

7.4.3 Fired clay

All fired clay needs to be discussed in relation to its spatial and chronological distribution, and it needs to be compared and paralleled with the pottery produced from the same contexts. Different types of fired clay need to be identified in more detail and discussed with the rest of the bulk finds. The material recovered from the soil samples taken during the initial evaluation need to be included in the final catalogue.

7.4.4 Worked flint

The flint should be considered in the light of ceramic, or other, dating evidence and, as appropriately, in more detail in relation to the recorded groups, features and deposits. Its association with other artefact types should also be considered. The relationship between raw material, flint type and condition of material and the type and date of its context should also be considered.

The present assemblages should be compared to those from the areas previously excavated and currently being studied from Flixton Park Quarry as well as to other locally and regionally relevant sites. Comparison with the other Flixton material will

include consideration of flint types and dates, technological aspects of flakes and distribution of material. A final report by period should be written for publication. Detail and length of the report of flint will depend on the significance of the period and feature assemblages.

Representative pieces or significant groups of flints will be selected for illustration. At assessment many pieces have been provisionally highlighted in the catalogue but it is not the case that these are all worthy of illustration. Much smaller numbers of pieces (very few intrinsically significant pieces and a sample selection of some other types) will be selected during analysis. Sketches of the flints for illustration will be provided by the specialist.

7.4.5 Slag

Analysis tasks will be undertaken once final phasing has been completed. Plans of areas, showing where features are located, will be required to allow special analysis of the activities. The pot, the possible crucible fragment, and the potential ores should be removed and passed on to the relevant specialists. After these tasks are complete, the material will need to be examined in relation to its spatial and chronological significance.

7.4.6 Small finds

Small finds (other than ceramic)

The small finds assemblage reflects Late Iron Age to Roman activity on the site, and is significant for further research on this transitional phase. The largest number of objects are of iron, many of which are unstable. With this in mind, and considering the future of the archival storage of the assemblage, the following recommendations are made.

At least fifty objects should be photographed and a total of twenty-six drawn to preserve a record for the archive and as illustration for future publication; these are predominantly the Iron Age and Roman objects. These have been noted in the catalogue and include brooches, the copper alloy chain and bindings, and the iron knives.

The following items should be cleaned and stabilised by a professional conservator to assist with identification and long-term preservation: brooches SF 1097, 1137, 1066,

1102, 1090, 1125 and 1139; the copper alloy chain SF 1112 and the fragments of binding SF 1157, 1160 and 1161; the glass beads SF 1005, 1014 – 16, 1022 and 1132.

A report on the small finds should form part of any future publications; it should consider the finds spatially and temporally on the site as well as relating the assemblage to others from similar sites regionally and nationally, with particular focus on adjacent Flixton sites.

The number of iron objects requiring illustration may increase or decrease following a more detailed study of the severely corroded items. It is also recommended SF 1146 is examined by a slag specialist and the textile component of SF 1201 examined by a suitable specialist.

Loomweights and other ceramic small finds

Ceramic small finds, and more specifically loomweights, need to be discussed in relation to their spatial and chronological distribution, and also in conjunction with the pottery. Two pieces in good condition have been selected for illustration.

7.5 Environmental evidence

7.5.1 Human skeletal remains

Human skeletal remains

Cremation

The bone from each of the three larger fractions will be sorted into five categories: skull, axial, upper limb, lower limb, and unidentified. All fragment groups will be weighed to the nearest tenth of a gram. Measurements of maximum skull and long bone fragment sizes will also be recorded. Observations will be made, where possible, concerning bone colour, age, sex, dental remains and pathology. Identifiable fragments will be noted. Methods used will follow the Workshop of European Anthropologists (WEA 1980) and McKinley (1994; 2004).

Radiocarbon dates will be possible for the burial, if required, and a sample will be selected for this purpose.

7.5.2 Animal bone

Full recording and identifications of the hand-collected material is required, including measurements where appropriate. The bone the catalogue needs to be updated. Final dating and context information needs to be considered in the final discussion of the material.

Analysis is required to determine the identification and use of the rabbit remains. Analysis also needs to determine the significance of the deposits with articulated animal remains and worked bone, and of the deposits with burnt remains within the assemblage. Any additional animal bone from the evaluation samples and from the human cremation contexts needs to be included in the final catalogue and discussion.

7.5.3 Plant macrofossils

Six samples that produced sufficient concentrations of identifiable plant macrofossils need to be re-examined as part of the analysis stage (*0349, 0386, 0718, 0834, 3024* and *4022*).

Small quantities of hammerscale and slag recovered from pit fill *4114* and metal working furnace (*4117*), fill *4122* should be examined by a metal working specialist along with any hand-collected material from these contexts.

8 Publication strategy

The publication strategy for the Flixton sites has always been considered somewhat problematic, mainly due to the chronologically extended nature of the work combined with the multi-period character of the archaeological deposits recorded. To date, Flixton Volume I was published as an EAA monograph in 2012, while Volume II is in the final stages of the preparation of a first draft. Volume III, which would complete the coverage of the main quarry is still at assessment stage.

That leaves the two quarry extensions; Cartwrights Covert, covered by this assessment, and the Homersfield extension to the south-west that at the time of writing is currently under excavation. While making a final decision that includes the Homersfield extension at this stage, before it has been finished and assessed, cannot be made. However, there appear to be three options:

- 1) One multiperiod publication, probably an EAA monograph, encompassing both quarry extensions.
- 2) Two separate multiperiod publications, probably EAA monographs, one for each quarry extension.
- 3) Two separate publications, probably EAA monographs, defined by chronological periods; a prehistoric and Roman volume and a medieval volume.

Periodisation of the Flixton publications has been considered in the past, but would have been difficult to implement for the reasons stated in the first paragraph. However, in this instance, due to the discrete character of the medieval archaeology, both temporally and spatially, it could be accommodated. The decision over which of the above options should be followed, or the addition of other possibilities does not need to be made at this juncture as the analysis tasks presented in Sections 7 and 9 would need to be completed regardless of what form the final publication were to take. It is suggested that a decision is left until the Homersfield extension has been completed. In the meantime, the Cartwrights Covert analysis tasks can be agreed and initiated.

9 Analysis and publication: resources and programming

9.1 Staff for analysis and publication

It is envisaged that where possible, the staff that will undertake the analysis and publication tasks will be the same as those used to prepare the assessments. However, given the protracted nature of the project, some changes are inevitable.

Overall Project Manager and principal author:	Stuart Boulter (SB1)
Finds management + publication tasks:	Richenda Goffin (RG)
Graphics, illustration and photography:	Ruth Parkin (RP), Gemma Bowen (GB), Ellie Cox (EC), Ryan Wilson (RW)
Prehistoric pottery and Roman pottery: analysis	Ioannis Smyrnaiois (IS)
Post-Roman pottery: analysis	Sue Anderson (SA)
Post-Roman pottery: thin sections	Patrick Quinn (PQ)
Work flint:	Sarah Bates (SB2)
Heat-altered flint and stone:	Ioannis Smyrnaiois (IS)
Fired clay (bulk):	Ioannis Smyrnaiois (IS)
CBM:	Sue Anderson (SA)
Metalworking waste:	Lynne Keys
Geological identification	Stuart Boulter (SB1), Ioannis Smyrnaiois (IS)
Loomweights and spindle whorls and other small finds:	Ioannis Smyrnaiois (IS), Ruth Beveridge
Conservation	Pieta Grieves (PG)
IA/Roman brooches and coins:	Jude Plouviez (JP)
Human skeletal remains:	Sue Anderson (SA)
Animal Bone:	Julie Curl (JC)
Plant macrofossils and C14 sample extraction:	Anna West (AW)

9.2 Task list

The following tasks have been identified as necessary to complete the project to draft publication level. No costs have been set against the tasks, but numbers of 'person-days' have been included along with a quantification of the non-staff tasks. A separate document will be prepared for the consumption of Cemex and their agent (The Guildhouse Consultancy) which includes the actual costs. Archive information has also been included as this will have a cost to Cemex. Publication costs including the required peer review and final editing can only be ascertained once the first draft has been submitted.

Task	Staff	No. days
Staff related tasks		
General project management	SB1, RG	15
Preparation of EAA synopsis	SB1	3
Stratigraphic analysis and text	SB1	50
Finds management (preparation for sending to specialists etc.)	RB, IS	8
Prehistoric and Roman pottery analysis	IS	8
Post-Roman pottery analysis	SA	2
Post-Roman pottery; thin section analysis (report preparation)	PQ	1
Worked flint analysis	SB2	13
General fired clay analysis	IS	2
CBM analysis	SA	1
Small finds (general)	RB	4
Small finds (Textile component on small find 1201)	TBA	0.5
Small finds (querns)	IS, RB	0.5
Small finds (loomweights)	IS	1
Small finds (photography, estimate 50 items)	RW	3.5
Metalworking waste	LK	4
Crucibles, slag/ceramic conglomerates, ore/stone ID	SA, IS	1.5
Charred plant macrofossils	AW	3
Human skeletal remains (1 cremation + human skull fragment)	SA	1
Animal bone	JC	3
Selection of figures/illustrations and photos	SB1, RG	3
General illustrations/graphics	GB, EC, RW	12
Illustration of artefacts; (prehistoric and Roman pot; estimate 107 sherds)	RP	10
Illustration of artefacts (post-roman pot; 7 sherds)	RP	1
Illustration of artefacts (worked flint; estimate 40 pieces)	RP	6
Illustration of artefacts (small finds; 30 items)	RP	8
Editing of specialist reports	IS	4
Final discussion of material evidence	IS	5
Compiling full overall EAA draft for submission	SB1	5
Preparation and deposition of site archive	RB	2
Non-staff tasks and consumables		
Finds transport		Costs TBA
Preparation of post-Roman pottery thin sections (6)		Costs TBA
Provision of C14 dates (estimate 5)		Costs TBA
Additional x-ray plates (estimate 2)		Costs TBA
Small finds conservation (15 objects)		Costs TBA
Misc. consumables		Costs TBA
Finds boxes (estimate 52)		Costs TBA
SCCAS archiving costs (bulk finds 48 boxes)		Costs TBA
SCCAS archiving costs (small finds 2 boxes)		Costs TBA
SCCAS archiving costs (paperwork 2 boxes)		Costs TBA

9.3 Archive deposition

At the conclusion of the project the site archive, both physical and digital, will be deposited with SCCAS. The cost of archive deposition and curation will need to be agreed between SCCAS and Cemex (UK) Materials Ltd. Transfer of Ownership forms for the finds will be sent for completion to Cemex (UK) Materials Ltd. via The Guildhouse Consultancy.

10 Acknowledgements

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Overall project management was undertaken by Stuart Boulter with finds management by Richenda Goffin.

Finds processing was primarily carried out by Jonathan Van Jenniens while quantification and data inputting was undertaken by Ruth Beveridge and Matt Thompson. Finds assessments were prepared by Sue Anderson (Post-Roman pottery, CBM, human skeletal remains), Sarah Bates (worked flint), Ruth Beveridge (small finds), Julie Curl (animal bone), Richenda Goffin (iron objects, Hertfordshire Pudding Stone, post-medieval glass), Lynne Keys (metalworking waste), Jude Plouviez (small finds), Ian Riddler (small finds), Ioannis Smyrnaioi (Prehistoric and Roman pottery, fired clay, heat-altered flint and stone, quern, iron nails). The various specialist reports were combined into the overall finds report by Ioannis Smyrnaioi.

Soil sample processing and the plant macrofossil assessment were undertaken by Anna West.

The report illustrations were created by Ryan Wilson and Stuart Boulter.

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