

## **Wrotham Quarry Investigations 2009 – 2013**

by Tim Malim, Laurence Hayes and Thomas Wellicome  
with illustrations by Caroline Malim. Pottery reports by  
Peter Couldrey (Iron Age) and Luke Barber (Medieval)

### **Summary**

SLR Consulting Ltd undertook a strip, map and sample investigation at Wrotham Quarry, Trottscliffe, Kent (NGR 564603 159555) for Hanson Aggregates. The strip, map and sample exercise was maintained during groundworks associated with the quarry extension in three separate phases. The first phase was undertaken between October and December 2009 during the topsoil strip for the main extension area, followed by stripping of a pipe corridor for electricity and water services, which was undertaken in June 2010, with a second phase to record the southern part of the site undertaken between November 2012 and January 2013. The investigations revealed a residual lithic scatter, comprising a Levallois-style core/scrapper, as well as other worked flint from the Palaeolithic, Mesolithic and Neolithic/Bronze Age periods. It also revealed episodes of more intense activity including burial, ritual and domestic evidence, spanning the Late Bronze Age to medieval periods.

Most notably the investigation located a Late Bronze Age cremation burial cemetery, which predated an Early-Middle Iron Age circular structure and co-axial ditch system with related cremation, a poorly defined phase of late Iron Age to Romano-British activity, and part of a medieval field system. Four samples from the Bronze Age burials produced good radiocarbon dates (1188 - 933 cal BC, 1124 - 933 cal BC, 1261 - 1041 cal BC, 1191 - 939 cal BC) which showed that the cemetery spanned a 300 year period.

The main period of activity, however, was during the Early and Middle Iron Age, for which a segmented ring ditch 13m in diameter, coaxial field ditches, pits,

cremated human bone, assemblages of pottery and carbonised wood were recovered. The pottery and radiocarbon dating of a cremation confirmed a Middle Iron Age date of 365-171 cal BC (at 95% confidence), but also a collection of decorated sherds which were assigned a slightly earlier date. Pottery manufacture might also have occurred on site. The interpretation placed on the ring ditch tentatively suggests that the site might not have been domestic, and instead could perhaps have been a rare example of an Iron Age shrine.

Potentially associated with activity in any of these periods were frequent pits and linear gullies, whose date was difficult to determine due to poor quantities of datable materials. Defining Iron Age or Romano-British occupation was particularly problematic as the recovered artefactual material was highly abraded and in many cases mixed with Norman material.

The archaeological remains at the site suggests a ritual focus with a cremation cemetery at the end of the Bronze Age, possibly continuing into the Iron Age in the form of the circular enclosure located during previous work. The nature of activity at the site in the Iron Age and Romano-British periods suggest that some occupation was based at, or near the site. During the medieval period the site appears to have been used for a defined field system, although other features (pits) indicate occupation during Norman times.

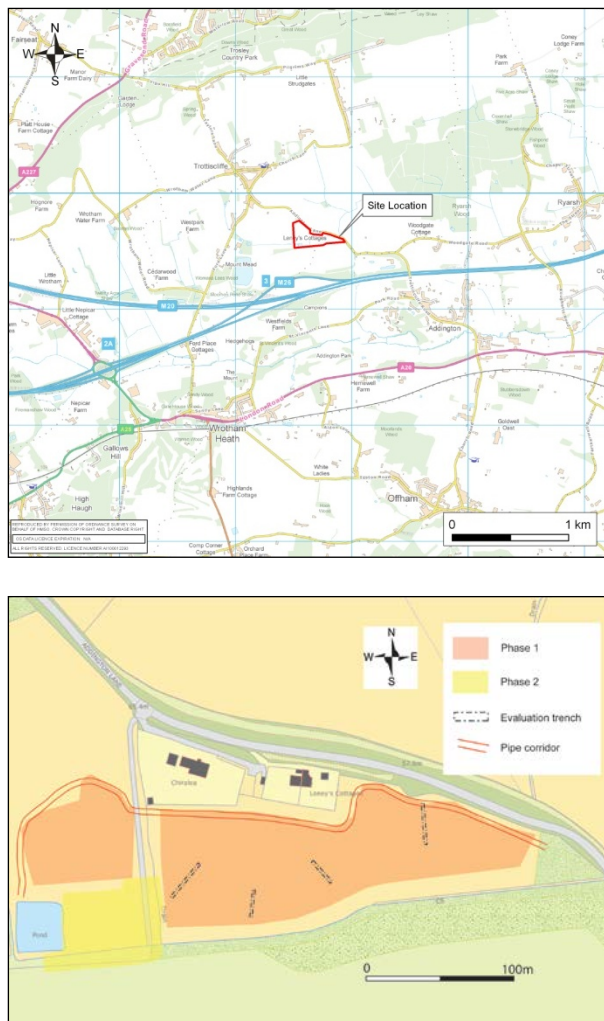


Figure 1 Site location and development area (red line)

## Introduction

The Northern Extension to Wrotham Quarry lies immediately north of the present quarry at NGR TQ 647 596 (Figure 1). It is situated on the boundary between the ancient parishes of Addington and Trottiscliffe, to the south of Addington Lane and approximately 0.6km to the southeast of Trottiscliffe. It comprises an irregular parcel of land c. 4.2ha in size surrounded by mature hedgerows, formerly with two principal fields divided by a north south aligned boundary with a pond in the southwest corner.

The solid geology at the site is divided, with cretaceous mudstone of the Gault Formation across the western half, and sandstone of the Folkstone Formation to the east (BGS Geotitles). The soil survey of England & Wales (1983) records the drift geology at the site comprising fine (wind-blown) red sands.

The site lies at a level of approximately 68m AOD at its highest point (towards the north west end), falling to 56m AOD at the eastern limit. Walkover survey confirmed that the underlying geology comprises gault clay and fine sands, attributed by British Geological Survey to the Folkestone Beds of the Wealden district. These are patchily overlain by angular, white patinated flint gravel, from which the Palaeolithic flake was recovered. Immediately to the north of the site extant chalk downland is apparent.

## Methodology

The strip, map and sample exercise was undertaken with an archaeologist in attendance during all machining work, allowing the machine to be directed and any exposed archaeological deposits to be identified, marked and isolated from the rest of the site prior to detailed excavation and recording. The approach to the

work was in accordance with Kent County Council's specification for Strip Map and Sample, as set out in the approved method statement (SLR 2009a).

Monitoring meetings were held on site as work was ongoing, with representatives from Kent County Council's Heritage Conservation Group, Hanson Aggregates and SLR present. This ensured that the methodology for excavation and recording was agreed, and that completed areas of the site could be signed off as work progressed.

The sampling strategy was developed on site through discussions with the County Archaeologist and the English Heritage Regional Science Advisor. Additional advice and site work regarding Palaeolithic deposits was provided by Dr Beccy Scott from the British Museum, and on the prehistoric pottery by Peter Couldrey.

A detailed total station survey was used to tie all hand drawn plans and features to the Ordnance Survey National Grid. All hand drawn plans were annotated with spot heights taken relative to the Ordnance Datum.

The artefacts recovered from the site were packed and stored by context prior to processing. Individual groups of artefacts were then separated by type and issued to the relevant specialists for assessment and analysis.

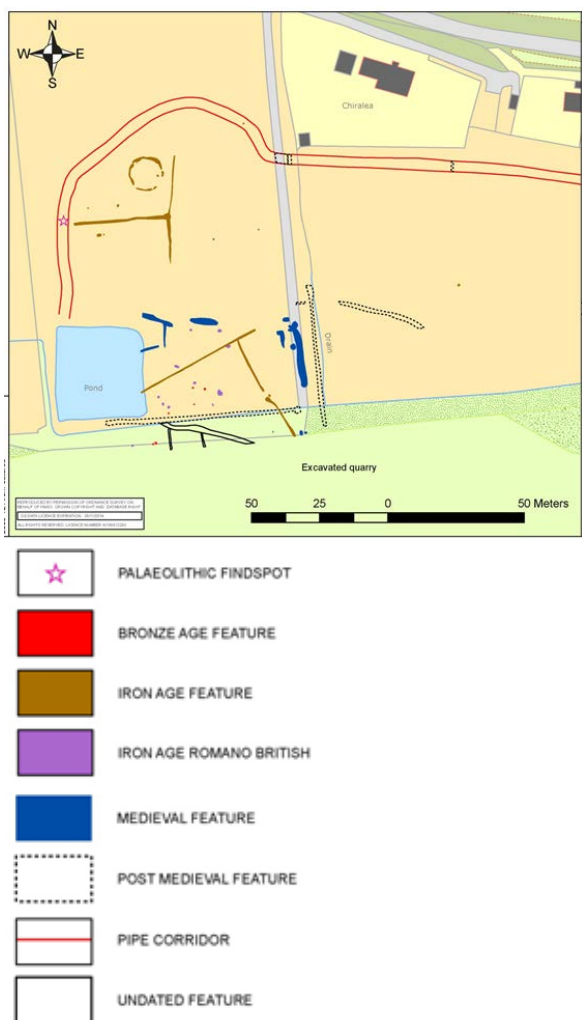


Figure 2 General distribution of archaeological features

## Results

A range of archaeological and natural features were identified and recorded during the site work (Figure 2). All features were sealed by the modern topsoil and exposed following the initial strip at around 200mm depth.

In the western half of the site there was a ring ditch 13m in diameter with four causeways and associated post holes. The pottery from this feature was dated to the Middle Iron Age. Debitage from flint working was also found in a number of these features.

In proximity and to the south and east of the ring ditch there was a series of ditches of similar date, interspersed with small pits, some of which can also be placed in the Iron Age on the basis of pottery from the fills. One was provisionally interpreted as a possible cremation.

In the southern part of the site a Late Bronze Age cemetery comprising at least four cremations was found. Iron Age co-axial ditches were also found in this zone, together with pits from several periods and later ditch systems.

In the eastern and southern parts of the site further pits and ditches were identified, mostly appearing to be post-medieval in date or of natural origin (probably associated with a 19th century orchard), though pits contained small assemblages of medieval pottery, mostly dated to the Norman period, and a third appeared to have had a possible industrial function.

Site-wide, the recorded features fell into five broad phases of activity, comprising natural geological mass movement deposits containing trace evidence for

Palaeolithic activity, Iron Age settlement and agriculture, medieval pitting and ditches, post medieval land division and undated ground disturbance (most likely to be post medieval in date).

Spatially the prehistoric activity at the site was concentrated on higher ground at the western end of the site. Later medieval and post medieval features were scattered more widely across the site.

### *Early prehistoric period*

The early prehistoric periods (Palaeolithic to Neolithic) was represented by a thin distribution of worked stone and flint implements, recovered as both stratified residual artefacts in later contexts and as unstratified stray finds (Figure 3).

The evidence for activity in the Middle Palaeolithic comprises an unstratified Levallois-style core/scrapper found at NGR 564545 159606 and two worked flakes from context (224) (unstratified deposits on western spoil heap). The former was a rolled, iron-stained and patinated piece, with angular flaking scars extending around a central platform naturally fractured within the worked areas and on the (ventral) underside, where two percussion bulbs were present (Figure 4). Percussion flaking, forming a probable scraper is found around the lower lateral edge.

Palaeolithic artefacts are illustrated as Figure 3 c, d and e. One core from Context (225)



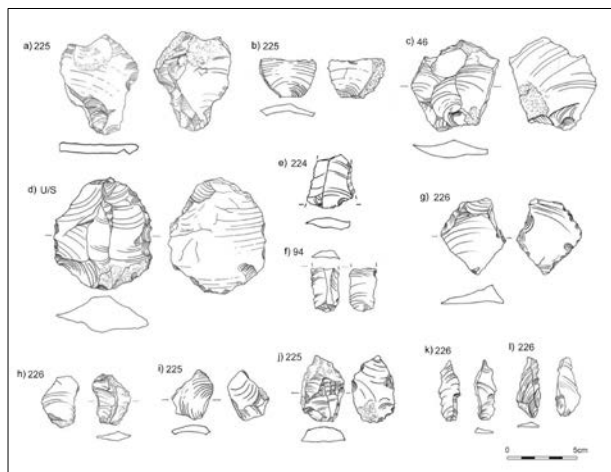


Figure 3 A selection of flint artefacts from the site



Figure 4 Palaeolithic Levallois-style core/scrapper

A single core was recorded from context (225) with clear dorsal ridges and scarring may be Mesolithic in date (Figure 3j). Neolithic/Bronze age material comprised a blade and end scraper from context 94 (Figure 3f) (within Iron Age ring ditch segment 43), debitage within context 20 (fill of medieval pit 22), and four flakes from the northern spoil heap (recorded as context 226).

A small number of pieces within the assemblage have been subjected to intense heat. It is possible the flint may have been a by-product of pottery manufacture, being used as a temper medium. Several pieces possessed fractured cortex areas with consistent heat scarring throughout.

### *Late Bronze Age*

Six features were located during the investigation which can be ascribed to the Late Bronze Age (Figure 5). All features comprised small pits of around 0.3-0.5m diameter cut into the natural mottled grey to yellow clay soils (505), and sealed by the ploughsoil and subsoil (503) and (504) respectively. The silty-clay fills contained frequent charcoal staining and angular stones, and in most cases fragments of burnt human bone from which it has been possible to obtain four radiocarbon dates.

Four cremation burial pits were clustered towards the centre of the site: [598], [600], [602] and [604]. A further two cremation burials were located to the southwest of this grouping ([540] and [542]), separated from the central group by a modern ditch but clearly part of the same overall phase of activity.

Cremation [598] comprised a shallow, circular pit that 0.53m in diameter and 0.15m in depth. Within the fill

(597) were inclusions of sub-angular flints and burnt human bone.

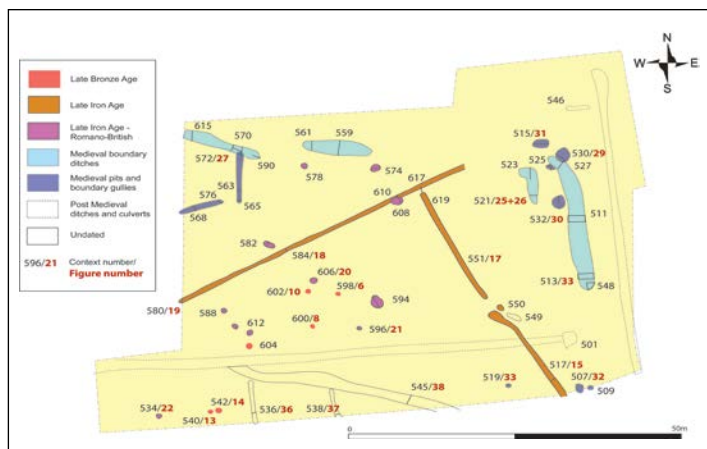


Figure 5 Bronze Age cremations in south of site

Cremation [600] comprised a shallow, circular pit that 0.38m in diameter and 0.14m in depth (Figure 6). Filling (599) contained occasional sub-angular flints and moderate quantities of small fragmentary human bones. The bone fragments comprised the skull of a juvenile or adult individual of indeterminate sex. Two samples of charcoal material from the burial were submitted for radiocarbon dating which produced dates of  $2871 \pm 29$  BP (SUERC-47258) with a 89.2% probability of a date of 970calBC; and  $2862 \pm 27$  BP (SUERC-47259) with a 87.6% probability of a date of 971calBC. This places the cremation firmly during the Late Bronze Age, most probably in the 10th century BC.

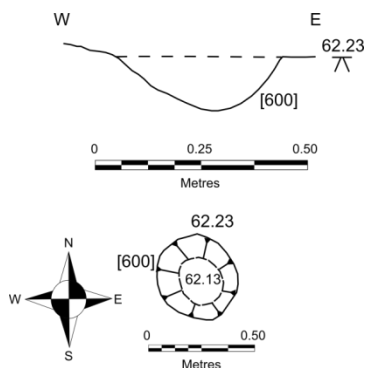


Figure 6 Example of one of the cremation pits (600)

Cremation [602] comprised a shallow, circular pit measuring 0.36m in diameter, filled by (601), with moderate inclusions of fragmentary human bone. The bones comprised parts of the skull, axial, and upper and lower limbs of a juvenile/ adult. A single radiocarbon date was recovered from the carbonised material within this cremation. This gave an uncalibrated date of  $2934 \pm 34$  BP, with calibration producing a 95.4% probability of a date of 1041calBC (SUERC-47260).

Cremation [604] comprised a shallow, circular pit 0.35m in diameter and 0.19m in depth. The fill (603) included fragmented human bone and occasional sub-angular flint pebbles. The identifiable bones included small pieces of the skull, axial, and upper and lower limbs of a juvenile/ adult. A single radiocarbon sample was retrieved from the carbonised material within this cremation which produced an uncalibrated date of  $2879 \pm 29$  BP, with a calibrated result of 89.2% probability of 973calBC.

Cremation [540] comprised a small, sub-circular pit 0.45 x 0.35m, filled with a dark brownish-grey moderately

compacted silty clay with occasional charcoal flecks (541). No obvious skeletal remains were located within the pit, however the similarity in appearance, its size and location suggests it is contemporary with the dated examples in this group.

Cremation pit [542] was sub-oval, 0.75m in length, 0.44m wide and 0.18m deep. The fill included very small angular flint pebbles and moderate inclusions of charred, fragmentary human bone (541). Environmental sampling of this fill determined that the skeletal remains included the skull of a juvenile/ adult of indeterminate age or sex.

Analysis of charred remains showed that macroplant fossils were poorly represented. No remains were evident in pit [608] and burnt clay deposit [612]. The samples extracted from cremation burials contained only two grass (Poaceae) caryopses, a single tuber of possible onion couch (cf. *Arrhenatherum elatius* var. *bulbosum*), two small indeterminate nutshell fragments and a single unidentified charred plant remains. Charred tubers are commonly found on Bronze Age sites, principally in relation with cremation burials. Wood charcoal was better preserved and comprised oak, maple, ash and Maloideae woods, all of which are known to be effective fuels (Taylor, 1981), and all of which could have grown in the vicinity of the site forming woodland or hedgerows. Oak is frequently a primary component of woodland, and ash is also generally a woodland taxon. Maple is more commonly found in woodland margin or more open environments. All of the charcoal remains from the cremation samples are likely to derive from fuel burnt in funerary contexts. The range of taxa recorded in these deposits is comparable to cremation deposits which have been examined from other sites in Kent such as Hothfield (Alldritt 2006a) and Saltwood Tunnel (Alldritt 2006b).

### *Middle Iron Age circular structure and ditches*

A group of features which included post-holes and four ditch segments formed a circular footprint for a structure (cuts 40, 41, 43 and 109) (Figure 7), with three post holes within the north-western quadrant of the ditch, and two post holes in the space enclosed by the ditch.

The ring ditch segments formed a slightly polygonal circle with an outer diameter of c. 13m and an inner diameter of c. 11m. The arc of the ring ditch had a combined length of 33m, with a gap 4.1m wide to the southeast most likely defining the entrance. The ditch segments were investigated in 22 separate locations, with new context numbers assigned to the fills/cuts as described in Table \* and Figures 7 and 8).

The space enclosed by the ring ditch notably comprised a particularly clean and undisturbed area of natural clay (Figure 9). This was not assigned a separate context, however it is possible that this represents either deliberate or incidental compaction of the clay within the centre of the ring ditch as a result of use and wear.

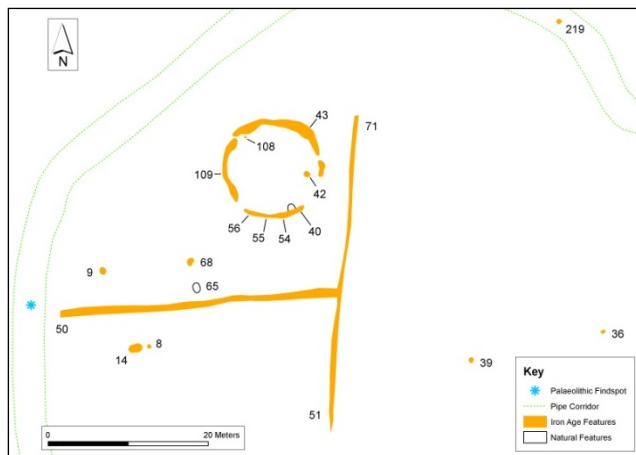


Figure 7 Iron Age circular structure in west of site

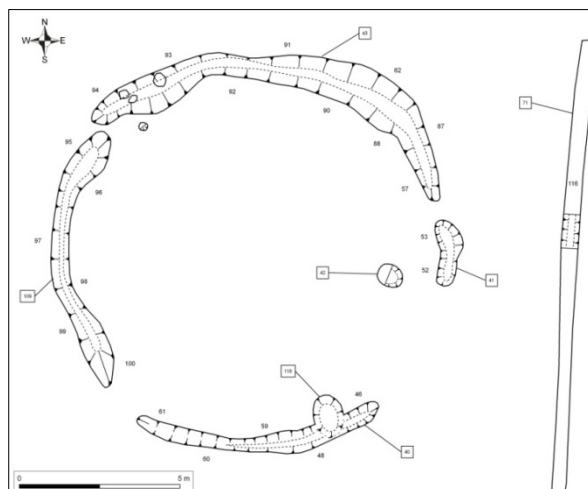


Figure 8 Detail of circular structure

Each segment had been cut in the same manner, with a broad, shallow concave profile and approximately level base (the base of the ditch around its circuit fell within the range 64.27 -64.80m AOD). Most of the circuit was of shallow depth, frequently around 60-100mm indicating a considerable degree of truncation due to ploughing. Despite this, the termini of each segment were clearly defined indicating that it had been deliberately constructed to have a segmented form (Figure 10).

The infill of the ring ditch was broadly similar throughout, with light to dark grey brown silty clay and occasional flint gravel prevalent in all segments. Two episodes of in-filling were noted at the western end of segment 43, with fill 110 underlying fill 93/94, and in segment 40, in which fill 46=48 overlay fill 47 in the north east terminus.

Notable inclusions were observed towards the western end of cut 43, in which a deposit of yellow clay corresponded with the location of three post holes, alongside a small piece of daub or kiln/oven lining in fill 93, and in cut 41 where charcoal and burnt clay was common. Towards the centre of cut 109 very frequent inclusions of large flint fragments were observed. The distribution of the pottery by sherd count within each of the fills highlights concentrations in the termini of ditch 43, the northern terminus of ditch 109 and the eastern terminus of ditch 40. Pottery was most common in the fills of ditch 43 (i.e. the northern side of the ring ditch) and the eastern terminus of ditch 40 (adjacent to the entrance) in which a large ragstone block (0.25m x 0.2m) had also been placed.

The pottery from the ring ditch was the earliest recorded on site, approximately dating to around the Earliest and Early-Mid Iron Age, however the severely worn nature of the sherds and the range of forms and fabrics present



make it difficult to interpret the chronology of the ring ditch backfill.

Alongside the pottery, fragments of animal bone were recovered from contexts in ditch 40. These were fragmentary and in a very poor state of preservation, and the only tentatively identifiable fragments may indicate a large mammal scapula and pig tooth enamel. Burnt flint was also found in fill 95 of segment 109 possibly associated with pottery manufacture on site, and a residual Neolithic or Bronze Age scraper in fill 94, segment 43.

Processing of palaeoenvironmental samples from the fills of the ring ditch demonstrated poor preservation of charcoal, and no charred macrobotanical remains were recorded.

Within the western end of ditch 43 three post holes were recorded (Figure 4). Post holes 112 and 114 had been cut through the primary fill of the ditch (context 110) and were 0.21 and 0.3m in diameter respectively. The fills were similar, comprising dark brownish grey silty clay with flint gravel inclusions. These were sealed by the upper fill of the ring ditch (94), which in turn was cut by post hole 106, 0.3m in diameter and 0.18m deep. Single sherds of Middle Iron Age pottery were recovered from the fills of post holes 106 and 114.

Palaeoenvironmental samples recovered from these post holes produced very limited traces of charred wood fragments.



Figure 9 Photograph of ring-ditch and clay surface on interior

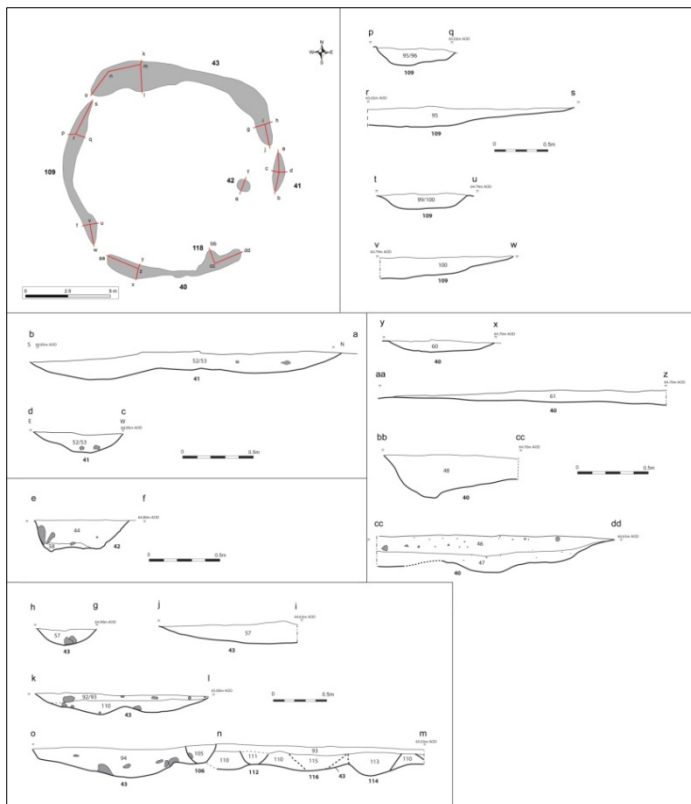


Figure 10 Ring-ditch plan with sections recorded

Cut	Fill	Length (m)	Width (m)	Depth (m)	Samples	Finds
40 <sup>1</sup>	47=59=61=60,  46=48	7.90	0.68	0.20	14,15	Pot, Bone, Ragstone
41	52=53	2.12	0.75	0.14	18, 46	Pot
43	110, 57=62=87=88=89=9 0=91=92=93=94	13.2 0	1.42	0.33	19, 29, 35	Pot, Flint, Fired Clay
109	95=96=97=98=99=1 00	8.50	0.98	0.19	36, 40	Pot, Flint, Fired Clay

Two features were located within the ditch circuit. Pit 42 was immediately inside the entrance, 0.9m to the west of ditch 41. The pit was 0.7m in diameter and 0.2m deep with steep-vertical sides and a flat base. Neither the basal fill (58) nor the upper fill (44) contained any cultural material, however a concentration of charcoal in the south-eastern corner of the feature may have represented the in-situ portion of a decayed post. Pit 118 was situated 4.6m to the south west and may have formed a pair with pit 42. This was interpreted as a natural feature which had been cut by ring ditch segment 40, however a cultural origin is not discounted.

Post hole 108 was situated near the north-western inner edge of the ring ditch. This was 0.3m in diameter and 0.19m deep with vertical sides and a concave base. Fill 104 contained fragments of fired clay and 14 sherds of probably Middle Iron Age pottery. Sample 43 was

---

<sup>1</sup> Also assigned cut numbers 54, 55 and 56

recovered from this deposit which contained a small assemblage of Ash charcoal.

None of the charred wood fragments from features associated with the ring ditch proved suitable for radiocarbon analysis.

### *Coaxial Field System*

A two-phased feature consisting of two ditches forming an initial right-angled junction, and a later addition of a gully which extended one arm of the feature northwards so that the ring ditch was 'enclosed' to the east. These three linears (50, 51 and 71), broadly on a north-south/east-west alignment, connected to form a 'T' junction 10m southeast of the ring ditch (Figure 9).

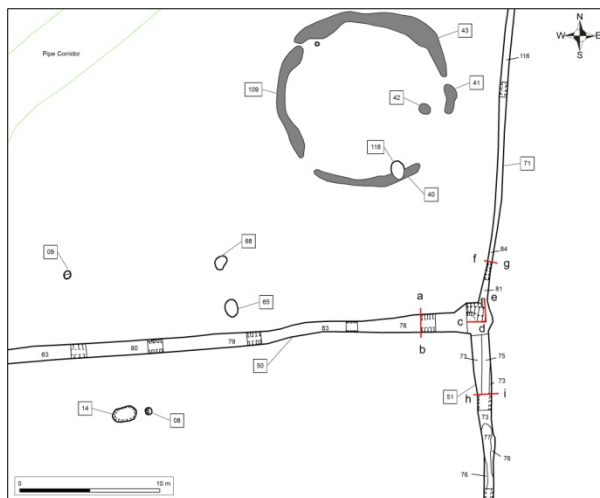


Figure 11 Co-axial field system and ring-ditch

Unidentifiable calcined animal bone, pottery and burnt clay was present throughout the ditch. Fill 63 towards the western end of the ditch contained fragmentary remains of cremated human bone from the skull, upper and lower limbs of a single (probably adult) individual. The cremation was in too poor condition to recover evidence for age, sex or pathology, however a sample of bone alongside a piece of willow charcoal and a piece of hazel charcoal from the fill were submitted for AMS radiocarbon dating. The results are given in Table \*. Fired clay was also found during flotation for palaeoenvironmental assessment.

SUERC Sample Code	Context	Type	Radiocarbon Age (BP)	$\delta^{13}\text{C}$ (‰)	Calibrated Age $1\sigma$ (cal BC)	Calibrated Age $2\sigma$ (cal BC)
37142 (GU25577)	63	Human Bone	2185 $\pm$ 25	-18.7	354-198	361-175
37146 (GU25578)	63	Willow	2240 $\pm$ 30	-26.0	381-231	390-206
37147 (GU25579)	63	Hazel	2185 $\pm$ 30	-26.5	356-196	365-171

This fairly tight date range in the Middle Iron Age supports the pottery evidence which also suggests backfilling in the Middle Iron Age.

Ditch 51 was the second in the sequence, aligned north-south with a visible length of 16.5m. This cut also had a concave profile 1.2m wide and up to 0.34m deep around 63.5m AOD. The primary fill (69=74=76 recorded in three interventions moving north-south) comprised a mottled brown/yellow clay with 8 sherds of pottery recovered from fill 76. The pottery suggests that

the infill of this ditch was broadly contemporary with the infill of ditch 50, both containing sherds from jars. Towards the southern end the ditch was overlain by an eroded layer of flint gravel (77) possibly indicating collapse of the ditch side or drag from ploughing, while towards the junction with ditch 50 a secondary fill (73) may indicate recut of the ditch.

The final ditch in the sequence was context 71, a shallow north-south aligned gully extending 22m north of the junction with ditches 50 and 51. This extended a further 5.7m southwards, partially recutting the later fills of ditch 51. The ditch was steep-sided with a flat base, 0.5m wide and 0.2m deep, the base dropping from 64.55m AOD at the northern end to 64.10m AOD at the southern end. The primary fill (75=72=81=85=115 recorded in five interventions moving south-north) comprised a mid-grey to brown clayey silt. At the northern end and in the central portion of the ditch, secondary fills indicate that it is likely to have been recut at a later date (fills 116 and 84). Fill 72 yielded a single sherd of prehistoric pottery that was not diagnostic of date.

### *Pit Group*

This group comprises eight pits: four of confirmed Iron Age date (8, 9, 14, 219) and four suspected to be Iron Age in date (26, 36, 39, 68). Four were clustered within the coaxial field system to the southwest of the ring ditch, the remainder distributed more widely to the east, but only one (26) falling within the eastern field.

Notable amongst these is Pit 8, initially interpreted as a possible cremation. The upper fill (context 6) was rich in charcoal and contained fire-cracked flint and fragments of caprine tooth enamel. Sample 1 from this deposit yielded a single charred seed of knotgrass or dock, and a small assemblage of oak charcoal which displayed

some evidence for vitrification perhaps indicating charring at a high temperature for an extended period (though temperature has not been conclusively linked with vitrification, c.f. McParland et al 2010). The bone recovered from the fill was burnt, but too fragmentary for identification, so could not be confirmed as a cremation.

<b>Cut</b>	<b>Fills</b>	<b>Diameter (m)</b>	<b>Depth (m)</b>	<b>Finds</b>	<b>Samples</b>
8	7, 6	0.58	0.24	Pot, Bone, Flint	1
9	12, 11, 10	0.65	0.23	Pot	3
14	13	1.72	0.3	Pot, Fired Clay	4
219	221, 220	0.6	0.15	Pot, Fired Clay	300, 301
26	25	0.9	0.1	-	-
36	35, 37	0.41	0.22	-	-
39	49, 38	0.6	0.15	-	13
68	67	0.9	0.16	-	-



Pits 9 and 14 contained frequent well preserved wood charcoal, (samples 3 and 4), with burnt bone recovered through flotation from fill 12 in pit 9, and burnt unworked flint in both fill 12 (pit 9) and fill 13 (pit 14). Flotation of samples 300 and 301 from pit 219 produced a large quantity of wood charcoal and a single caryopsis of wheat alongside fragments of unidentifiable burnt bone and burnt unworked flint.

Pit 26 in the eastern field appeared to have an industrial function, with highly fired red clay and charcoal towards the base of the pit. It is possible that this feature could have been used in the firing of pots, but no other evidence from the feature could confirm its original function.

The pottery suggest that pits 8, 9, 14 and 219 are all contemporary, with forms attributable to the Middle Iron Age providing an indicator that they are also contemporary with the adjacent coaxial boundary ditches.

#### *Late Iron Age co-axial gullies and post-hole*

The features in this phase comprise a coaxial arrangement of narrow gullies in the centre of the second phase (southern) excavation area forming a possible part of a relict field system. The fills of the gullies were for the most part aceramic, though a single sherd of Late Iron Age grog-tempered pottery came from the southernmost gully [517]. In terms of form these gullies are similar to an arrangement of Middle Iron Age gullies thought to represent field boundaries, found a short distance to the north during the 2009-10 investigations at the site, though their alignment differs. The narrow gullies in this phase stand in contrast to more substantial ditches containing medieval pottery alongside earlier ceramics to the east and north.

The southernmost feature within this phase was a north west to south east aligned linear ditch/ gully [517]. This feature entered the site in the south east corner and terminated to the southeast of a similarly aligned ditch/ gully [551]. It measured c. 17.6m in length, c. 0.68m in width and 0.15 to 0.20m in depth. Filling [517] was a mid-brownish grey clay (516)/ (553) with frequent small angular flints, some of which were burnt, a single sherd of Late Iron Age grog-tempered pottery, and small fragments of bone. Given the alignment of this feature, which represents a continuation of [551]/[619], it seems likely that this ditch forms part of a wider field system, along with [619], [580]/ [584]/[610]/[617].

To the north west of gully [517], gully [551] continued on a similar north west - south east alignment and measured c. 20.1m in length, 0.8m in width and 0.23m in depth. The fill (552) comprised mid greyish brown clay with occasional small to large angular flints (Figure 12). No datable artefacts were recovered from this feature.

Situated in the break between gullies [517] and [551] and possibly truncating [517] was an oval pit or post hole [550] measuring 1.0m x 0.80m in plan, filled with a primary fill of mid-greyish brown moderately compacted silty clay, with occasional charcoal flecks and sub-rounded flint nodules (554). This fill was overlain by a light greyish brown moderately compacted silty clay with occasional flint pebbles (555). No datable artefacts were recovered from this feature.

The northern end of gully [551] terminated at a perpendicular feature [580]/ [584]/ [610]/ [617] to the north.

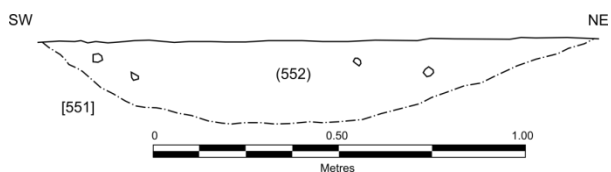


Figure 12

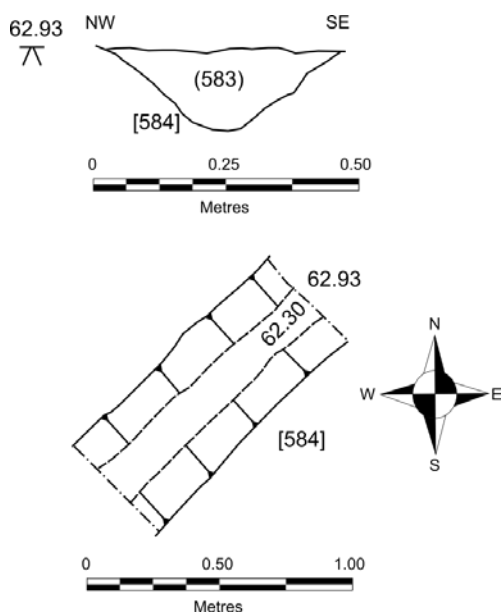


Figure 13 Plan and section of gully 584

Gully [580]/[584]/[610]/[617] (Figure 13) was a single feature recorded at four separate locations and comprising a north-east – south-west orientated narrow gully measuring approximately 47.8m in length, 0.5m in width and 0.15m deep. The fill of the gully was a uniform light grey silt (579), (583) and (609), with occasional flint inclusions which grew more frequent towards the base of the feature, suggesting possible erosion of the gully sides. No datable material was recovered from the fills of this feature.

#### *Late Iron Age- Romano-British pits*

This phase comprises a scatter of 11 large, oval pits in the western half of the investigation area. These features did not contain datable artefacts (though fragments of possible Romano-British pottery are noted on context records for pits [574] and [[578]) but have been grouped on the basis of their similar form. The location is partially coincident with the location of the Bronze Age cremation pits, and surrounds the possible Late Iron Age field boundary gullies in Phase 2, suggesting a possible greater temporal distribution of these features than could be determined by excavation. The presence of frequent scorched and burnt flint in some features may indicate an industrial nature to some of these features.

<b>Cut</b>	<b>Fill</b>	<b>Diameter (Max)</b>	<b>Finds</b>
534	533	0.84m	Frequent Charcoal
574	573	1.3m	Small pieces Roman pottery noted on context sheet
578	577	0.8m	Occasional charcoal and small fragments of Roman pot noted on context sheet

582	581	1.82m	None. Possible natural origin noted
586	585	0.75m	None
588	587	0.8m	Burnt flint
594	593	1.26m	Frequent scorched earth and burnt flint
596	595	0.9m	Burnt flint and charcoal
606	605	1.06m	None. Possibly water-lain infill of tree hollow
608	607	1.74m	Very frequent scorched/burnt flint and charcoal perhaps indicative of industrial activity
612	611	0.84m	Burnt clay

In the northern part of the second phase (southern) excavation area were four pits, [574], [578], [582] and [608]. The northernmost of these, [574] and [578] were oval in plan measuring 1.3m and 0.8m in diameter respectively. Pit [574] was 0.17m deep, the fill silty clay (573) containing burnt stone and apparent fragments of Roman pottery. Pit [578] was 0.12m deep and filled with silty clay (577) which was also noted to contain fragments of Roman pottery.

Pit [582] was located to the north of gully [584]. It was oval in plan and measured 1.82 x 0.73 x 0.28m. Filling the cut were occasional sub-rounded flint pebbles and cobbles with some manganese staining (581). No finds were located within this feature. This feature was probably a tree bowl, but given its proximity to other pits

in this portion of the site it cannot be totally discounted as a feature.

A further small pit, [608], containing a dark grey/black moderately compacted silty clay with frequent small flint and charcoal flecks (607) was located adjacent to Phase 2 gully [610]. This feature contained very frequent burnt flint perhaps indicating an industrial purpose, but no datable artefacts were recovered.

In the central area of the site and partially coincident with the location of dated Bronze Age cremations were pits [588], [586], [594], [596], [606] and [612]. Pit [588] was circular in plan, and 0.8m in diameter. Roughly 6m to the south east of this pit was a further similarly sized pit [612], measuring 0.84m in diameter. Lying between these two pits was a feature interpreted as an oval post-hole [586], which measured 0.75 x 0.66 x 0.10m. The fills of each of these features were undiagnostic, with no dating evidence located. The fill of pit [612] (sample <8>) was submitted for palaeoenvironmental analysis. The results were negative.

Lying to the north of cremation burial [602] was oval pit [606], filled with a firmly compacted light grey silty clay (605) (Figure 14), which was interpreted as probably being of natural origin.

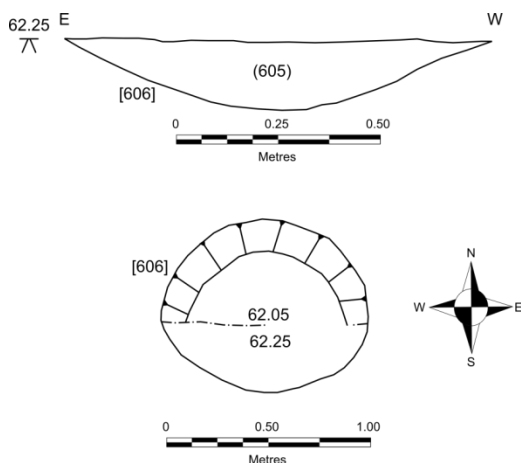


Figure 14 Plan and section of pit 606

Pit [594] was situated immediately to the east of the main group of cremation burials in the centre of the site. The cut was oval in plan and filled a dark grey brown silty clay with frequent scorched earth fragments and burnt flint (593).

To the southwest of [594] was a further small oval pit [596], containing a fill of dark greyish brown firm silty clay with frequent sub-angular pebbles and occasional burnt flint and charcoal flecking (595).

Pit [534] was situated in the southwest corner of the site. The cut was roughly circular in plan (0.84m maximum diameter) and filled with a dark brownish black, moderately compacted silty clay (533) which contained burnt sandstone and frequent charcoal/flint (Figure 15).

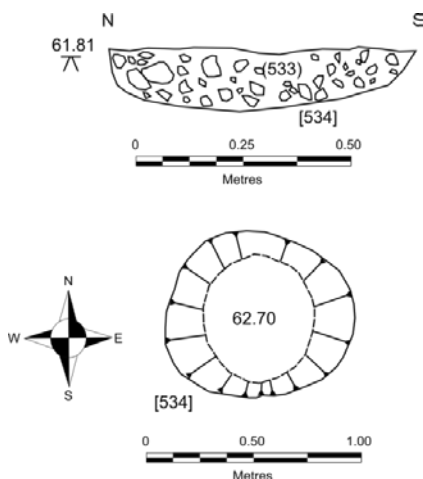


Figure 15 Plan and section of pit 534

### *Medieval boundary ditches*

An initial phase of medieval activity at the site is represented by four ditches on the east and north sides of the investigation area.

Situated to the east of gullies [517] and [551] on the eastern side of the site was a wide ditch ([511]/ [513]/ [527]/ [548] recorded in four interventions). The ditch measured 23.1m in length oriented approximately north-south, and was up to 2.6m wide. The fill of this ditch was quite uniform, consisting of a mid to dark greyish brown firmly compacted silty clay containing frequent flints and occasional charcoal flecking (510), (512), (526) and (547). Towards the southern end of the ditch (within fill (512)) was a copper alloy ring (see Appendix E) that possibly formed a part of decorative edging for a chainmail garment, and a probably un-associated copper alloy small mount or fitting. Finds recovered from



fill (510) towards the centre of the ditch included both Late Iron Age grog tempered pottery and Romano-British coarse and fine wares, alongside frequent medieval pottery dated to the late Norman period (12th – 13th century). A similar date range of pottery incorporated within the fill of the ditch was noted in context (526) at the northern end of the feature, while medieval pottery alone was found within the southern terminus (547). This suggests a likely medieval date of infilling, though reworking of Iron Age/Romano-British material from surrounding features (or residual within the ploughsoil) is evident.

Situated to the west of Ditch [511]/ [513]/ [527]/ [548] was an irregular, oval-shaped feature [521]/[523], interpreted as a remnant ditch. The cut was principally north-south aligned, measuring 6.5m in length and up to 1.5m wide, with an east-west aligned return at its northern end. The fill of the ditch was a grey brown clay (520)/ (522), containing occasional Norman (12th – 13th century) pot sherds and frequent small to medium sized angular and sub-angular flints. A small quantity of residual Late Iron Age pottery was also present within this fill.

In the north-west corner of the investigation area was a roughly west-north-west to east-south-east aligned ditch [570]/ [590]/ [615]. The cut was 12m in length and up to 2m wide, extending beyond the north-west corner of the stripped area. At the western end of the ditch a primary fill of a mid-brownish grey firmly compacted silt (614) was overlain by a uniform brownish grey silty clay fill (569)/ (589)/ (613). A section excavated through the ditch (at [570]) yielded a small quantity of late Norman pottery (12th – 13th century).

To the east of ditch [570]/ [590]/ [615], and on an east-west alignment, was a further section of ditch [559]/ [561]. The linear cut was 10m in length and up to 2m

wide, and contained three distinct fills. The earliest fill (558) comprised a dark grey firmly compacted silty clay with occasional small angular flint, which was overlain at the eastern end of the feature by a mid yellowish grey firmly compacted silty clay containing a single sherd of Norman pottery and small flint nodules (557). Overlying (557) was a mid yellowish brown firmly compacted silty clay with occasional medium to large angular and sub-angular flints (556). At the western end the ditch was filled with a uniform fill, (560), comprising firmly compacted yellowish grey silty clay with occasional sherds of Norman (13th century) pottery, and appeared to be part of the same context as (556).

### *Medieval Pit Groups*

Two Isolated pits (22, 24) situated close together towards the centre of the eastern field contained relatively early (Norman) medieval pottery giving a fairly tight date range for deposition in the latter half of the 12th century to mid 13th century.

<b>Cut</b>	<b>Fills</b>	<b>Diameter (m)</b>	<b>Depth (m)</b>	<b>Finds</b>	<b>Samples</b>
22	21, 20	1.39	0.25	Pot, CBM, Flint	-
24	23	0.48	0.32	Pot	-

The features within this phase comprise a shallow gully in the north-west corner of the investigation area which appeared to cut the upper fills of ditch [570], and a group of pits on the eastern side of the site which cut into the fills of ditches or contained medieval pottery in their fills.

In the north west corner of the investigation area was a gully comprising an east-west aligned section ([568]/ [576]) 7m in length, with a north-south aligned return at its eastern end ([563]/ [565]/ [590]) 8.5m in length which cut into the fill of ditch [570] at its northern end. Filling [568]/ [576] was a yellowish grey firmly compacted clay (567)/ (575) containing occasional sub-angular pebbles towards its base. Cut [563]/ [565]/ [590] was filled with a dark grey brown moderately compacted silty clay (562)/ (564). No datable finds were recovered from the fills of this feature.

On the eastern side of the site a series of pits had been cut into the backfill of ditch [527]. The northernmost of these comprised [530], an oval pit in plan measuring 2.2m x 2m. The cut had a concave profile 0.45m deep and was filled with two clay fills (529) and (528), the uppermost of which, (528), contained occasional charcoal flecks (Figure 16). Both fills contained Late Iron age and Romano-British pottery, the upper fill also containing late 12th-13th century (Norman) wares. This pit partially truncated the fills of ditch [527].

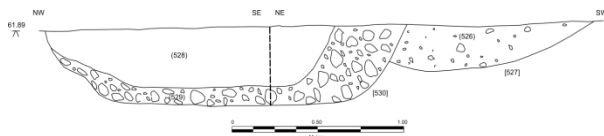


Figure 16 Plan and section of pit 530

To the immediate southwest of pit [530], pit [525] was a second oval pit with a concave base measuring 1.25m x 0.78m in plan and 0.22m deep. The fill (524) was a dark greyish brown silty clay with frequent flint nodules and occasional charcoal flecks (524). The fill also contained Late Iron Age, Romano-British and medieval pottery.

The fact that these pits had been cut into the backfill of ditch [570]/ [527] indicates that the ditch had been out of use (possibly deliberately backfilled) prior to the excavation of these features.

To the south of pit [525] was pit [532] (Figure 17). The pit was oval in plan, measuring 2m x 1.8m orientated north - south. The cut profile had steeply sloping sides and a flat base 0.25m deep. Filling the pit was a firm mid-greyish brown silty clay containing occasional burnt flint, occasional charcoal flecking and 13th century medieval pottery. Occasional residual sherds of 1st century pottery were also located within the fill. Although this pit had no stratigraphic associations, it has been placed in this phase alongside pits [525] and [530] on the basis of its proximity to the latter, and the similarity of its shape, inclusions and fill.

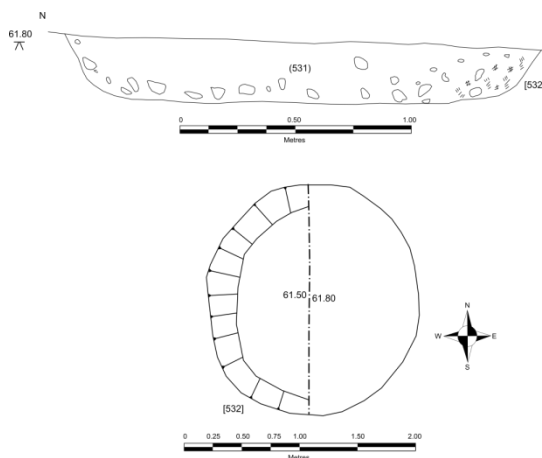


Figure 17 Plan and section of pit 532

Pit [515] was located towards the north eastern corner of the site. The cut was sub-circular/ ovoid in plan, 2.4m in diameter, with a concave profile and filled with a well compacted grey brown clay containing flint and occasional small pottery sherds of Late Iron Age- 1st century AD date (514). This pit has been placed in Phase 4b on the basis of its size, shape and proximity to the group of pits described above.

In the south east corner of the site was a small group of cut features comprising one small pit and two post holes, [507], [509] and [519].

Post hole [509] was oval in plan and measured 0.96m x 0.66m. The fill (508) contained 5 sherds of Late Iron Age Patch Grove grog tempered ware pottery. Post hole [509] was situated in close proximity to pit [507], an oval cut measuring 1.9 x 1.14m. The fill (506) contained frequent inclusions of charcoal flecks and pebbles, alongside pottery of later Iron Age, Romano-British and medieval date.

To the west of these, and to the west of ditch [517] was a further circular post hole [519], filled with moderately compacted grey clay (518). This feature also contained pottery of medieval date.

## **Interpretation and discussion**

### **Palaeolithic**

The drift geology at the site has been characterised as a mass movement deposit of flint gravel formed through solifluction, present across the site at depths of between 0.2 and 1.6m.

In the notes on the public seminar on the Lower and Middle Palaeolithic archaeological resource in the South East, mass movement deposits such as this (also including colluvial and Aeolian contexts) are noted for their unpredictable depositional characteristics. While the processes of formation might lead to significant disturbance and movement in some locations, at others formation may equally have taken place under gentler conditions resulting in a greater potential for the survival of undisturbed Palaeolithic remains .

The poor condition of the artefacts ascribed to this period at Wrotham Quarry is such that it is unlikely these could have been situated within relatively undisturbed contexts. The unfavourable conditions for preservation of in situ remains could be considered more extensive in the local area.

Palaeolithic artefacts are recorded nearby at Junction 3 of the M20 motorway (HER ref TQ 65 NW 45- within 500m of the site) and at Birling (TQ 66 SE 6). The former comprised a single Levalloisian type knife with retouched edge discovered during rescue excavations in 1965 around 0.5km south east of the current site. The HER notes a possible connection between this artefact and the workshop site at Baker's Hole, Northfleet, 9 miles to the north. The record for the site at Birling does not describe the nature of the artefacts recovered, but it does indicate a scatter around 2.4km to the north east of the current site.

More widely the background evidence for Palaeolithic activity is recognised primarily from the now dispersed collection of Benjamin Harrison. Harrison visited the area in the 1920s and noted “the implement-bearing flint drift” (HER TQ 65 NW 16). Many of the known examples of Middle Palaeolithic finds (primarily Chellian /Acheulian types, including implements found at Hognore Wood to the west of the site (HER TQ 66 SW 1)) come from Harrison’s collection, but the accurate provenance of their discovery and condition of the finds is not well recorded.

### Mesolithic-Bronze Age

Mesolithic and Neolithic/Bronze Age activity is indicated by the presence of worked flints from these periods within later contexts.

The extent and nature of this activity is unknown. It is consistent with the background evidence for these periods locally however, with three Neolithic chambered tombs in relatively close proximity (Addington Long Barrow (TQ 6533 5910), the Chestnuts Neolithic chambered tomb (TQ 6527 5917) and the Coldrum Stones Long Barrow (TQ 6543 6072)).

### Bronze Age

Late Bronze Age mortuary activity consisting of a cremation cemetery and isolated cremations was found, based on the radiocarbon dates obtained from three of the cremations. The small size of the cremation burial ground probably relates to a small social or extended family group. This may be supported by the scientific dating, which although limited, suggests an elapse of time between the earliest burial and that of the later two. The cremations located in 2012/3 appear to be fairly isolated in terms of associated features, although some pits located in close proximity to the cremations (with no

datable finds) could potentially be contemporary. The cremations when combined with the residual lithic scatters located during the 2009/2010 programme of work confirm that this site was a focus of activity throughout prehistory.

## Iron Age

The principal area of Iron Age activity was concentrated in the western half of the site, with the ring ditch, co-axial boundary ditches and surrounding pits perhaps indicating the presence of an unenclosed farmstead. The pottery recovered from all features suggests disuse and backfill in the Middle Iron Age, with settlement spanning the Earliest to Middle Iron Age. The ceramic chronology is supported by radiocarbon dating for a cremation which provided three samples, each with a date closely matching one another: 361-175, 390-306 and 365-171 cal BC (at 95% confidence).

All of the features dated to this period had suffered a considerable degree of truncation as a result of later agricultural activity, therefore the available sample of artefacts and ecofacts provides only a partial picture of the site's use and chronology.

The ring ditch may have formed the foundation trench of a domestic round house. Given the absence of internal posts this may be more likely to have been a ring-groove house, the ring ditch containing the timber uprights. There was little evidence for the internal layout or external superstructure, although remains of post settings were identified in the north west segment of the ring ditch.

At 13m diameter the ring ditch at Wrotham is broadly comparable with features of similar date elsewhere, for example at Little Waltham in Essex where discontinuous circular foundation trenches 10-14m in



diameter were common in the mid 3rd- late 2nd century BC (Cunliffe 2005, p 273, Drury 1978, p 11). At Wanlip in Leicestershire a ring groove structure (Structure 2) 14m in diameter had been truncated giving a discontinuous 'segmented' appearance, though at that site more extensive evidence of the internal and external structures had also survived (Beamish 1998 p 19). At Castlesteads, north of Dalkeith in Midlothian, two ring-groove structures were excavated in 1994 during works on the Dalkeith Bypass. These had been severely truncated as a result of ploughing such that Structure 2 (10 m in diameter) retained only four inner post holes. No post holes, stone packing or re-cuts were identified within the ring-groove slot (Rees 2010, p 32).

The apparently segmented form of the ring ditch at Wrotham is unusual. The profiles of the segment termini show that they had been intentionally excavated as such and were not the product of partial truncation. It may be that portions of the gully were periodically cleaned out, in places to a greater depth than the original leading to its surviving appearance, though this is not consistent with the interpretation as a ring groove for a domestic dwelling. Alternative interpretations, however, are also possible.

The incomplete ring formed by the ditch includes four causeways between ditch termini, with the orientation of these potential "entrances" located at the north-western, north-eastern, south-western, and south-eastern points. This pattern suggests deliberate design rather than differential survival of cut features that have been subjected to ploughing. Each ditch terminus is well-formed, and there is slight overlap in those forming the north-west causeway, leaving a very slight "entrance" causeway between them. Opposite this, the south-eastern entrance is much wider than the other three, with a small segment of ditch separating it from the north-eastern causeway.

The distribution of post holes and pits is also unusual, in that there is no apparent ring to support a roof within the circuit of the ring ditch, and just three stake holes identified within the fill of the ditch itself. In addition to these, post hole 42 is located internally near the south-eastern entrance, possibly paired with 118 if this was not a feature of natural origin. Stake hole 108 is located on the interior of the north-western ring ditch,. The possible pair of post pits 42 and 118 and their location would be similar to structural elements from porches, although the two external posts that would have been necessary for a porch do not appear to exist at Wrotham. It is possible that post pads were used and thus no surviving evidence for a ring of roof support timbers was found, but it is perhaps more likely that the main structural element was contained within the ring ditch itself, evidenced by three visible stake holes within the fill.

The distribution of pottery in this structure (Figure 21) is also of interest, with the majority of medium abraded sherds found in the north-eastern ditch segment (60 sherds in contexts 57,87, 88, and 90). The north-western terminus of this ring ditch also contained a concentration of pottery (38 sherds in contexts 92, 94, 95, and 96) accompanied by a dump of clay, this assemblage is distinct from the north-eastern assemblage in that it is mainly assigned an Early Iron Age date, containing the finger-tip decorated and cordoned pottery. In addition to these two locations, the south-eastern terminus (46) is the other with a notable concentration of not very abraded pottery (75 sherds in contexts 46 and 48). A thin scatter of more heavily abraded pot sherds were found in other parts of the ring ditch, plus 14 Middle Iron Age sherds within the fill of stake hole 108.

If the pottery really indicates a chronological difference, then there is an assemblage of Early Iron Age ceramic

material in the north west, with later pottery elsewhere, perhaps suggesting a two phase use of the site, if not also perhaps evidence for a two phase structure. The distribution of pottery could also indicate differential activities within the interior of the ring ditch, reflected by breakage and dispersal of different types of vessel in different quadrants of the building. Alternatively the pattern could derive from selective disposal in certain locations for perhaps votive reasons (Hill 1995).

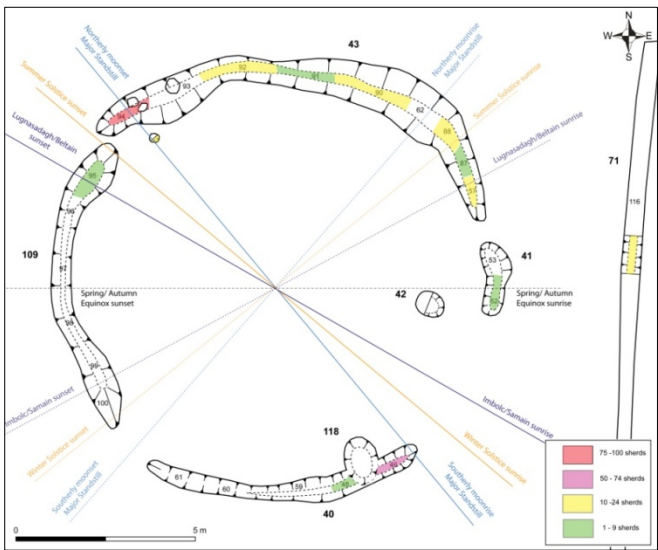


Figure 18 Circular structure and alignments NB: Alignments are based upon sites with the same latitude as Stonehenge and come from: J E Wood 1980 Sun, Moon and Standing Stones, OUP

In spite of a possible parallel with the Little Waltham plan, the evidence for a round house is therefore not particularly convincing, as these buildings are usually identifiable by clearly defined virtually continuous eavesdrop gullies, and/or rings of post holes. The plan

of the Wrotham structure has more affinity with earlier prehistoric monuments, with causeways and “entrance” ways used to restrict views and movement from outside to the interior.

The location of these entrances/designed views at Wrotham, delimited by a ditch which could have formed the construction cut for a palisade or wattle fencing, are oriented midway between the cardinal points. The rising and setting of the sun on these days were significant dates for the Celtic calendar, and in addition the ends of the southern ditch are broadly in line with the orientation for the major standstill phases for the rising and setting of the moon (Figure 18; Wood 1980, p.9-13) which happens every 18 years. The complex astronomical calculations to establish such a possible relationship during Iron Age times in this part of Kent are beyond the remit of this report, but the implication is that this small circular feature may have been used in a similar manner to stone circles, with astronomical alignments attuned to various sets of ditch termini/posts rather than standing stones.

If this alternative interpretation to a roundhouse is accepted, then the function may have been that of an Iron Age shrine. Examples of these structures have been rarely identified in the archaeological record, but both square and circular ones are suggested (Woodward 1992, p.31) . The association of the cremation rite with a shrine, and the possibility of some features defining a Nemeton or precinct (ditches 50 and 71) which partially enclose it, plus the apparent absence of other structures or pits that would normally be found as part of an Iron Age settlement, all lend circumstantial weight to this tentative interpretation. In the ditches of the Gallic Shrine at Gournay, for example, structured deposits were found which could represent acts of propitiation (James 1993, p.93) that are mirrored by the

selective disposal of ceramic material around the ring ditch at Wrotham.

More widely the evidence for this period in the local landscape is divided between isolated findspots of coins and artefacts, and possible settlement sites. For example pits, a field system, and a later Iron Age four-post structure (granary?) was found at Leybourne Bypass Area A 4km to the east, as well as a Middle to Late Iron Age enclosure at Area E2. In addition at Stangate Quarry Middle Iron Age cinerary urns, inhumation and a possible round house was found 5km to the south-west.

The evidence from Leybourne Bypass suggests a continuity of occupation into the Later Iron Age and Roman periods. This does not appear to be the case at Wrotham Quarry, the artefact assemblage and radiocarbon-dated cremation clearly reflecting disuse/abandonment in the Middle Iron Age. There is no artefactual evidence to suggest any activity in the Late Iron Age or Roman periods. This hiatus may reflect more closely the recognised hiatus between Middle and Late Iron Age settlement in Kent.

Partly due to the truncation of features, poor condition of the artefacts and carbonised plant remains, the chronology and phasing of the site remains loosely defined. Although the pottery can be placed in the Early and Early-Middle Iron Age, the general paucity of feature sherds precludes a detailed phasing of the features. The preservation of charcoal was at best fragmentary (though included a surprising range of species including Oak, Ash, Maple, Hazel, Birch and possibly Willow) and radiocarbon dating was only feasible on human bone and roundwood remains from ditch [50]. These have provided a date range for the abandonment of the site which broadly corroborates the pottery dating. The preservation of charcoal was not

sufficient however to undertake a more extensive programme of scientific dating, for example to provide calibrated dates for the pottery assemblage. A relative chronology of features associated with the ring ditch is known from the stratigraphic relationship of features, but overall the relationship between the ring ditch, pits and coaxial field system can at best be described as broadly contemporary.

In terms of the site's function, it is assumed that the activities occurring around the site were either domestic or funerary/religious. There is a lack of archaeobotanical remains indicating crop processing or storage, though the pottery assemblage includes domestic forms typical of food storage and cooking.

The discovery of burnt flint in association with Iron Age pot in Pit [08], ditch [50] and ring ditch [95] may also indicate small scale pottery production at the site, with flint burnt for use as temper. As noted in the pottery report (Section 6) above, the distribution of 's'-profiled jars in a glauconitic fabric matching the raw materials available at the current site is widespread in Kent and Essex, however the production source is unlikely to be the current site which was clearly not producing pot on an industrial scale.

### Later Periods

There is no evidence for any activity at the site after the Middle Iron Age, which could suggest a shift in focus of the settlement away from these earlier features, abandonment of the site or perhaps forced evacuation. Pitting and agricultural features from the medieval and post medieval periods generally indicate low intensity agricultural use of the site from the twelfth - thirteenth century onwards, with numerous bioturbation features likely to have been the result of the use of the site as an orchard in the nineteenth century. Surprisingly,

however, there were also pits containing a large assemblage of unabraded pottery of probable twelfth century date, comprising sherds from just two principal vessels, a cooking pot and a bowl. This suggests pits might have been dug for deliberate rubbish disposal, and thus settlement would have been in close proximity. During the Norman period, twelfth - thirteenth centuries drainage or boundary ditches, gullies and pits were excavated across this area, possibly to define ownership or demarcate agricultural strips. The pottery analysis has indicated that the period of occupation is likely to have been relatively short, between 1200 and 1275/1300, with a low or middle status domestic dwelling situated close to the excavation.

## **Conclusion**

Prior to the work in 2009 the long-term sand pit at Wrotham had not been subject to archaeological investigation. It is clear from the wide-range of periods represented, and the diversity of the type of archaeological features, that this was a well utilized landscape and that the spread of archaeological remains would have extended into the existing mineral extraction area. The results from the 2009 -2013 investigations have been of high significance, including Palaeolithic artefacts, a Bronze Age cemetery, and an enigmatic Iron Age structure, as well as evidence for prehistoric and later land division. Also of considerable importance was the discovery of a well preserved assemblage of Norman pottery which is of regional significance.

## **WROTHAM QUARRY 2009-13: THE PREHISTORIC POTTERY**

(Peter Couldrey)

### **Introduction**

A total of 306 prehistoric sherds, weighing c.1kg, was recovered from the excavations. Most of these were from the main features, Ring Ditch (Structure 1) and linear ditches (50, 51 and 71). Many (40%) of the sherds were severely abraded on one or both surfaces and few recognisable forms survive. Those that do can be placed early within the Middle Iron Age (c.400 – 200 BC). There was some circumstantial evidence for the manufacture of pottery on the site. The pottery catalogue is included on CD at the end of this report. Note that PRN numbers referred to in the catalogue and this report have been created by combining the context number followed by the sherd number, e.g. PRN 83001 is sherd 001 from context 83. Correspondence between fill context numbers and their respective feature numbers are given in Tables 2, 3 and 5 above.

### **Fabrics**

The sherds were examined with a x15 hand lens and the broad fabric groups are described here. These have been sub-divided by size and density of inclusion and the details are held in the archive. The distribution of these fabric groups by feature/context is shown in Table 1.

#### **A      Glaucinitic Sandy**

Sandy fabric with moderate to common grains of glauconite up to 0.2mm.

#### **AO     Glaucinitic Sandy with Organic inclusions**

Sandy fabric with moderate to common rounded grains of glauconite c. 0.1mm with sub-rounded voids representing organic inclusions, common up to 0.3mm, moderate up to 1mm.

#### **AQ     Glaucinitic Sandy with Quartz**

Sandy fabric with moderate to abundant grains of glauconite less than 0.2mm, and sparse to moderate inclusions of clear translucent quartz less than 0.5mm, rarely up to 1mm. Two examples also have moderate brown translucent quartz up to 0.8mm.

#### **F       Flint**

Grey, occasionally white, inclusions of calcined flint, sparse up to 4mm, moderate to common up to 2mm. One sherd from the Ring Ditch also has brown-stained flint.

#### **FA      Flint in a glauconitic sandy matrix**

Moderate to common rounded grains of glauconite generally up to 0.2mm and calcined flint inclusions, moderate to common up to 1.5mm, sparse up to 3mm.

#### **FAQ    Flint in a glauconitic sandy matrix with quartz**

Similar group to FA above, but with the addition of sparse to moderate grey translucent quartz, up to 0.5mm, rarely up to 1mm.

#### **FAQG   Flint in a glauconitic sandy matrix with quartz and grog**



Similar to fabric group FAQ above, but with moderate inclusions of brown grog 1–3mm.

**FAQO** Flint in a glauconitic sandy matrix with quartz and organic inclusions

Similar to fabric group FAQ above, but with moderate organic inclusions represented by linear voids up to 2mm.

**FG** Flint and grog

Moderate to common inclusions of flint up to 1mm and sparse up to 2mm, together with sparse to moderate sub-rounded grey and brown inclusions, probably grog, up to 2mm.

**FI** Flint and Iron Oxide

Moderate to common inclusions of flint up to 2mm and sparse to moderate inclusions of iron oxide up to 2mm.

**FIO** Flint, Iron Oxide and Organic inclusions

Sparse to moderate inclusions of flint less than 1mm; sparse to moderate inclusions of iron oxide up to 2mm and common linear voids representing organic inclusions up to 2mm.

**FO** Flint and organic inclusions

White or grey calcined flint common up to 2mm and sparse up to 4mm, found with linear voids, representing organic inclusions, moderate to common up to 3 or 4mm.

**FOQ** Flint and organic inclusions with quartz

Calcined flint, common up to 1mm and sparse to moderate up to 3mm was joined, in one example by sparse occurrences of non-calcined flint up to 4mm. Moderate to common voids, up to 3 or 4mm were accompanied by sparse to moderate grains of sub-rounded translucent quartz generally up to 1mm.

**FQI** Flint, Quartz and Iron Oxide

Moderate to common flint up to 3mm with sparse quartz, up to 1mm and sparse iron oxide up to 2mm.

**FS** Flint and Shell

Moderate inclusions of flint up to 0.2mm and common to abundant voids, probably representing shell fragments, up to 3mm.

**G** Grog

Common inclusions of grey and brown grog up to 1mm.

**OI** Organic and Iron Oxide

Common linear voids up to 2mm long and moderate iron oxide also up to 2mm.

**S** Shell

Shell, now represented by voids, often with striations, common up to 3mm and moderate up to 4mm

**Table 1: Distribution of Fabrics**

	Fabric																		
Context	A	AO	AQ	F	FA	FAQ	FAQ G	FAQ O	FG	FI	FIO	FO	FO Q	FQI	FS	G	OI	S	Total
Ring Ditch																			
46						51		3					5						59
47			2			3													5
48			3									12						1	16
52																	2		2
57						10						2							12
62				1															1
87			1			3													4
88					4	16	2												22
90	22					3													25
91						2				1	1								4
92				1	2	9			2	1		3				1		1	20
94				6								1							7
95				7							1								8
96										3									3
Ring Ditch totals																			
no of sherds	22	0	6	15	6	97	2	3	2	5	2	18	5	0	0	1	2	2	188
percentage	11.70	0.00	3.19	7.98	3.19	51.60	1.06	1.60	1.06	2.66	1.06	9.57	2.66	0.00	0.00	0.53	1.06	1.06	100
Linear Ditches																			
Ditch 50																			
63					1	3													4
70						1													1
78					2						1	1	1		7				12
79						1													1
80			21			2													23
82						4													4
83						4		1											5
Ditch 51																			
76		8	5																13
Ditch 71																			
72																		1	1
75						1													1
116			10			8													18
Linear Ditch Totals																			
no of sherds	0	8	36	0	3	24	0	1	0	0	1	1	1	0	7	0	0	1	83
percentage	0.00	9.64	43.37	0.00	3.61	28.92	0.00	1.20	0.00	0.00	1.20	1.20	1.20	0.00	8.43	0.00	0.00	1.20	100
Pit 8						5													5
Pit 9						5													5
Pit 14						1	1												2
Pit 219			7																7
PH 106						1													1
PH 108				8	1							4		1					14
PH 114				1															1
Site Totals																			
No of sherds	22	8	49	24	10	133	3	4	2	5	3	23	6	1	7	1	2	3	306

percentage	7.19	2.61	16.01	7.84	3.27	43.46	0.98	1.31	0.65	1.63	0.98	7.52	1.96	0.33	2.29	0.33	0.65	0.98	100
------------	------	------	-------	------	------	-------	------	------	------	------	------	------	------	------	------	------	------	------	-----

Only the Ring Ditch and Ditch 50 produced more than 20 sherds. The condition of the pottery is evident from Table 2, which shows the average sherd weight and percentage of severely worn sherds per feature. In particular the sherds from the Ring Ditch and Linear Ditches 50, 51 and 71 are extremely worn and small.

**Table 2: Average weight of sherds and percentage sherds with at least one severely worn surface**

Feature	No sherds	Average wt. (g)	% severely worn
Pit 8	5	9.2	20
Pit 9	5	1.2	100
Pit 14	2	11.5	0
Pit 219	7	5.43	0
Ring Ditch			
Cut 40	80	3.74	16.25
Cut 41	2	0.5	100
Cut 43	95	3.38	52.63
Cut 109	11	3.82	81.82
Ditch 50	50	3.46	34
Ditch 71	20	1.85	35
Ditch 51	13	1.23	100
Posthole 108	14	1.86	28.57
Posthole 106	1	18	0
Posthole 114	1	3	0
<b>Whole site</b>	<b>306</b>	<b>3.43</b>	<b>39.54</b>

## Forms and decoration

There were few recognisable forms and, of those, several rims were so small, worn, or irregular, that their angles and diameters are uncertain. The most common form was an S-profiled jar with everted rim, commonly associated with Middle Iron Age assemblages. This was represented by two rims, one from Ditch 51 (Figure 1a PRN 76001) and the other from Ditch 50 (Figure 1b. PRN 83001). A third everted rim, from the Ring Ditch (Figure 1c PRN 47001), which is thinner than the others, and which does not share the slight swelling around the neck, may possibly belong to the same form.

A coarse rim, shown here (Figure 1d PRN 46005) as everted with a flattened top, may belong to a similar form, but its angle and diameter are very uncertain. It is equally possible that it is inturned on a concave neck and belongs to a shouldered jar. Similarly, what has been illustrated as an inturned rim from the Ring Ditch (Figure 1e PRN 92002), could be interpreted as belonging to an open bowl.

Three sherds were decorated with finger-tip impressions: on the outside of a rim (Figure 1f PRN 94001), on a possible shoulder (Figure 1g PRN 95001) and on a cordon (Figure 1h PRN 92001).

The association of forms and decoration with fabrics is shown in Table 3. One everted rim (Figure 1a PRN 76001) was in glauconitic sandy fabric (AO), the other forms were all in flint tempered glauconitic sandy fabric (FAQ). The three sherds with finger-impressed decoration by contrast were in non-glauconitic flint tempered fabric.

**Table 3: Forms and Fabrics**

<b>Group</b>	<b>Fabric</b>	<b>AO</b>	<b>FAQ</b>	<b>F</b>
<b>Form &amp; Decoration</b>				
Everted rim from S-profiled jar (Figures 13a-c PRN 47001, PRN 76001 & PRN 83001)		1	2	
Neck and shoulder from S-profiled jar (Figure 1j PRN 06001)			1	
Footring base from S-profiled jar (Figure 1i PRN 47002)			1	
Everted rim with flat top (Figure 1d PRN 46005)			1	
Inturned rim (Figure 1e PRN 92002)			1	
Finger-tip impressed decoration (Figures 13f-h PRN 92001, PRN 94001 & PRN 95001)				3

It is evident from the wall thickness however, that the illustrated sherds do not reflect the full range of pottery present on the site. The illustrated forms have walls between 5 and 9mm thick. The thickness of the body sherds (Table 12) suggests that there was a greater variety of vessels present. The sandy fabrics (A, AO and AQ) were used mainly for vessels with walls between 5 and 8mm thick with one example of 4mm and two up to 9mm. The flint tempered fabrics however include thin-walled vessels of 3 – 5mm as well as vessels with walls as thick as 13mm, representing a broader range of vessels than those in sandy fabrics. In particular, glauconitic fabrics may not have been used for large storage jars, for which coarser flint tempered fabrics appear to have been preferred.

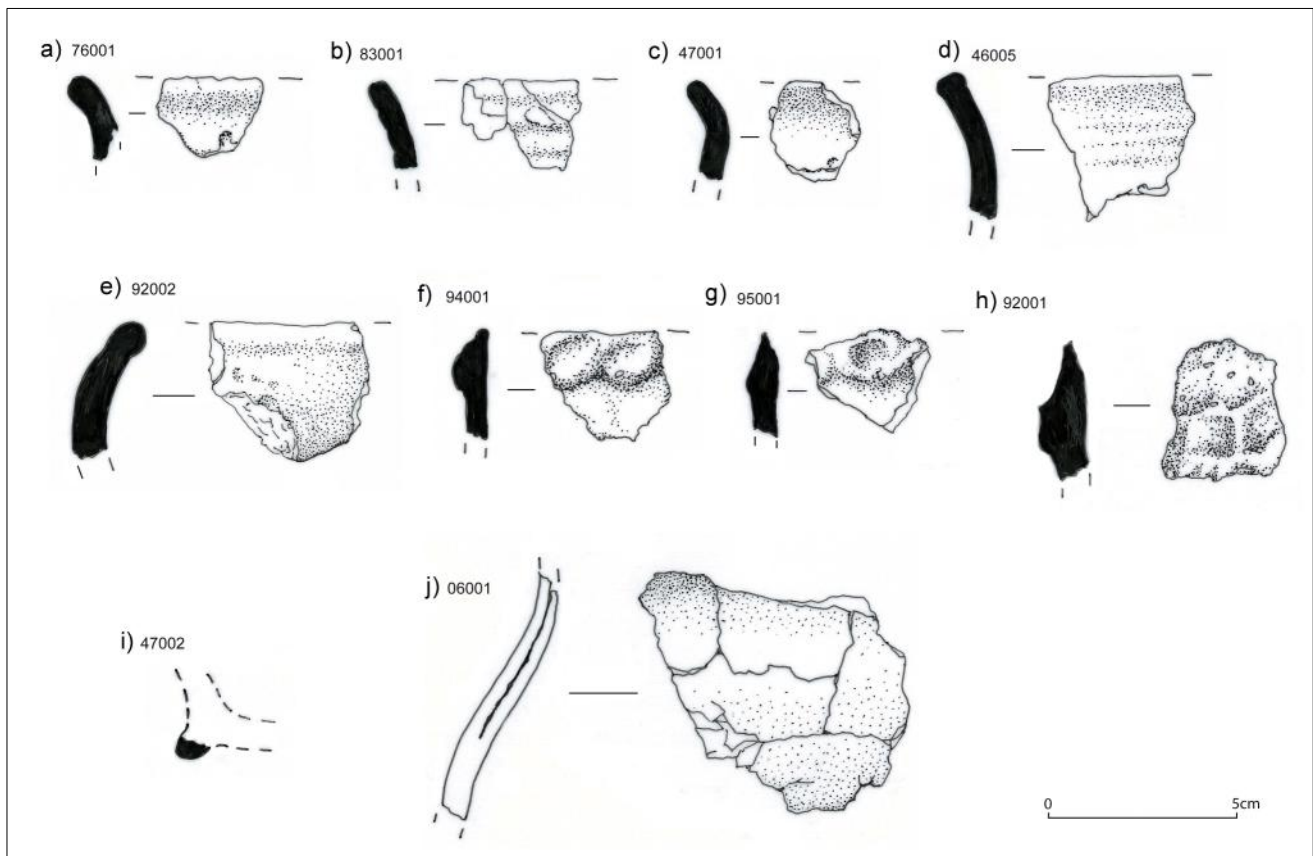
### **Chronology and Affinities**

In this discussion the terminology used is that employed by the Channel Tunnel Rail Link (CTRL) project, namely: Earliest Iron Age (800 – 550 BC), Early Iron Age (600 – 350 BC) and Middle Iron Age (400 – 200 BC) (Morris 2006a, 73), the overlapping dates acknowledging some uncertainty. The degree of wear and small size of the sherds renders their dating problematic. Most are likely to be from vessels which had fallen out of use well before they reached the contexts in which they were found. Here, the linear ditches are considered first followed by the Ring Ditch and its associated postholes and the pits.

**Table 1: Body thickness per Fabric**

	Body thickness (mm)										
Fabric	3	4	5	6	7	8	9	10	11	12	13
A				—	—	—	—				
AO				—	—						
AQ		—	—	—	—	—	—				
F			—	—	—	—	—	—	—	—	—
FA			—	—	—			—	—	—	
FAQ	—	—	—	—	—	—	—	—			
FAQG				—	—						
FAQO			—	—							
FI		—	—	—	—						
FIO			—	—							
FO				—	—	—	—	—	—	—	—
FOQ					—	—	—	—			
FQI						—					
FS					—	—					
G		—	—								
S						—	—	—			

**Figure 1: Prehistoric Pottery (Scale 1:2)**



### ***Linear Ditches (50, 51 and 71)***

The only recognisable form from the linear ditches was the S-profiled vessel represented by two fragments of everted rim: Figure 1b PRN 83001 from ditch 50 and Figure 1a PRN 76001 from ditch 71. These vessels are characteristic of the Middle Iron Age and are commonly

found in west Kent. Nearby sites include Oldbury (eg. Thompson 1986, fig. 7.16 & 18) and West Malling (Jones 2009, fig. 1.14.14 & 15). A Middle Iron Age date is supported by three radiocarbon dates from samples taken from a fragment of human bone, willow charcoal and hazel charcoal from context 63 at the western end of Linear Ditch 50. These samples produced consistent dates within the range 390 – 171 cal BC (see Table 4 and Appendix A).

Other dated examples of S-profiled vessels were recovered from pit 226 at Eyhorne Street (Jones 2006b, fig 1 - 4) where a bimodal calibration produced dates of 410-350 BC or 300-230 BC (NZA-22594: 2295 +/- 30 BP) (Allen, Brady and Hayden 2006, 5-6). At Beechbrook Wood, a radiocarbon date from the inner enclosure ditch which contained a good range of Middle Iron Age forms, including S-profiled jars (Jones 2006a, fig. 21), was calibrated to 390-170 BC (NZA-20052, 2207 +/- 40 BP) (Allen and Brady 2006), coinciding with the date range obtained from Ditch 50 at Wrotham Quarry.

### ***The Ring Ditch***

This feature was severely truncated and the slight remains produced just 136 sherds. Their distribution around the Ring Ditch is shown in Table 1. It contained the earliest recognisable pottery from the site. None was recovered from the south-west quadrant (contexts 97 – 59).

The sherds decorated with finger-tip impressions were all found close together in the north-west of the Ring Ditch (contexts 92, 94 and 95). The cordon (Figure 1h PRN 92001) and shoulder (Figure 1g PRN 95001) were severely worn with little of their surface surviving, allowing plenty of scope for the interpretation of their forms. The cordon (Figure 1h PRN 92001) may have derived from the upright wall of a Deverel-Rimbury bucket jar of the Middle Bronze Age (cf. Kemsley, McNee 2006, fig. 14/3); but the worn surfaces also allow it to be interpreted as being from the concave neck of a storage jar of the Earliest, or Early, Iron Age (c. 800 – 350 BC) (cf. Highstead forms F58 & F59, Couldrey 2007). A similar date range can be proposed for the rim with finger-tip impressions around the outside (Figure 1f PRN 94001): examples are known from the Middle Bronze Age (McNee 2006, fig. 15/9) and the Earliest and Early Iron Age (Highstead decoration type D4b, Couldrey 2007). The sherd illustrated in Figure 1g PRN 95001 is likely to belong to a shouldered vessel more commonly found from the Earliest to early Middle Iron Age (eg. pit 4067 at White Horse Stone, Morris 2006b, fig. 7, 18 & 22).

The Ring Ditch also produced a small fragment possibly from a footring base (Figure 1i PRN 47002), which, if the interpretation is correct, is more likely to be of Middle Iron Age date. Other featured sherds (Figures 13d and e PRN 46005 and PRN 92002) are not closely datable, but could also be accommodated within the Early Iron Age, possibly continuing into the Middle Iron Age.

The fabrics may also be considered: three grog tempered sherds were recovered from context 92 (associated with the decorated cordon), two with flint added (fabric FG, 6g), the third with grog being the only visible inclusion, but possibly belonging to the same vessel (Fabric G, 1g). More than half of the grog inclusions are brown and more typical of that found in the Early – Middle Bronze Age, than the more consistently grey inclusions found in the Late Iron Age (Thompson 1982), though grog is occasionally found in EIA and MIA assemblages.

The distribution of fabrics in the Ring Ditch may be compared with those from the linear ditches (Table 1). Sherds from the latter are predominantly (87%) in sandy glauconitic fabrics ('A' in the fabric code represents glauconite) as they are in the former, where they account for 72%. This large percentage of glauconitic sandy

fabrics, shared by the linear ditches and the Ring Ditch, suggests that the two may be contemporary.

Unfortunately there is no absolute date for the start of the use of glauconitic sandy fabric. It is associated with Early Iron Age forms at White Horse Stone, for example from pit 4067 (Morris 2006b, fig. 7, 14, 17 & 20), which was dated to the fifth century BC (Allen and Barclay et al. 2006), and has occasionally been found in Earliest Iron Age assemblages, as in Period 2 at Highstead (Couldrey 2007, 102, Fabric D). It undoubtedly became very popular in the Middle Iron Age at several sites in west Kent (see below) and during the Late Iron Age in the Medway valley (Thompson 1982). Given the availability of sandy glauconitic clays on the site (see below), it would have been easily available for use at any time.

The evidence for the chronology of the Ring Ditch may be interpreted in various ways: it was filled during the Middle Iron Age and the decorated sherds and those in non-glauconitic fabrics were derived from an earlier land surface, midden, or feature which has been destroyed; it was substantially filled in the Middle Iron Age but had been in use early in the period, possibly beginning in the Early Iron Age; or it was contemporary with the linear ditches, and pottery forms traditionally associated with the Early Iron Age continued in use alongside those more familiar from the Middle Iron Age, with the varying distribution of forms representing varying use and discard. There is no conclusive evidence to support any one of these possibilities. The precise chronology of the forms and styles of decoration associated with the Early and Middle Iron Age in Kent needs clarification.

#### ***Postholes 106, 108 and 114***

These postholes produced 16 sherds of pottery: posthole 114, with one flint tempered sherd (fabric F), was dug through the lower fill of the ring ditch (context 110, within cut 43, north west quadrant) and was covered by the upper fills. Posthole 106 was cut through the upper fill of the Ring Ditch (context 94), stratigraphically later than posthole 114, and contained one sherd of flint tempered glauconitic sandy fabric (FAQ), providing the smallest possible sample of the chronological progression of these fabrics. No. 108 was inside the circuit of the Ring Ditch and contained 14 sherds of flint-tempered fabric, one of which was in a glauconitic sandy matrix. All of these are probably Middle Iron Age.

#### ***Pits 8, 9, 14 and 219***

These pits produced very little pottery, but may all be contemporary: Pit 8, within the linear ditched "enclosure", produced the neck and shoulder of an S-profiled jar (Figure 1j PRN 06001), attributed to the Middle Iron Age. Pits 9 (also within the enclosed area) and 14 to the south of ditch 50 produced sherds of flint tempered glauconitic fabric and are probably contemporary with Pit 8 and the linear ditches. Pit 219, to the north east of the enclosed area, produced 7 sherds belonging to one vessel in glauconitic tempered fabric and, on this evidence, is also placed in the Middle Iron Age.

#### **Evidence for pottery manufacture on the site**

The geological evidence suggests that clay and tempering agents for all the main fabrics were available close to the site. The site lies on gault clay which is highly glauconitic and which contains angular flints over and within it (Dines et al. 1969, 94). Lower Chalk is present about 1km to the north of the site; but closer, south of Trottiscliffe, the drift overlying the gault, is very flinty (Dines et al. 1969, 131).

Some evidence was recovered from the excavations which may be seen as indirectly indicating the presence of pottery manufacture. Three vessels from the ring ditch: PRN 46005 (fabric FAQ3, comprising 36 sherds weighing 110g), PRN 88006 (fabric FAQ8, 1 sherd weighing 10g) and PRN 90003 (Fabric A2, 22 sherds weighing c. 30g) were crumbly and appear to have been underfired, suggesting that the pots may not have had the strength to remain complete for long, if ever, and that when buried, they were not far removed from their place of manufacture. In two instances however (PRNs 88006 and 90003), sherds were found encased in raw glauconitic sandy clay, similar to that of which they were made; possibly with a view to re-using them as grog in subsequent manufacturing; or thrown out as rubbish with scraps of the raw clay while clearing up at the end of a firing session.

In addition to the clay, fourteen burnt flints or fragments, weighing 200g, were recovered (see Section 10 below): from the Ring Ditch, Ditch 50 and Pit 8. While these may be indicative of other activity on the site (Seager Thomas 2010), it is possible that they are related to the manufacture of flint tempered pottery.

Also context 93 (fill of ring ditch segment 43) produced a 17g fragment of well-fired buff silty clay of curved strip form. The piece is too small to be certain if it represents daub or part of an oven/kiln structure<sup>1</sup>.

To the east of the “enclosure” the truncated remains of pit 26 revealed a layer of charcoal on its base, covered by lumps of fired clay. No finds were recovered to provide an indication of date or use; but the charcoal appears to represent the remains of deliberate firing in the bottom of the pit and it is possible that it had been used for firing pots. The lack of wasters or sherds however, must render such an interpretation extremely tentative.

While most pottery used during the Early and Middle Iron Age in Kent appears to have been made from local materials, it is unusual to find a site which is directly on a suitable clay source (Hamilton 2002). Circumstantial evidence suggests that pottery could have been made on the site. Certain evidence though, whether in the form of wasters or tools for its manufacture, is absent, and it seems that if pottery had been produced, it would have been on a small scale.

## **Discussion**

Although the sherds from Wrotham Quarry are small and abraded, and many of the features are considerably truncated, the pottery provides evidence of a Middle Iron Age site in the south of West Kent. The small sample may be hiding the full chronological range of settlement; but it does allow the site to be placed in context. The range of fabrics had already been used earlier, to the east of the Medway at White Horse Farm (Morris 2006b); and the presence of finger-tip decoration suggests that some of the same forms may also have been employed. The S-profiled jars in glauconitic sandy fabrics were to continue in use at least into the second century BC (Jones 2009), being found just 5 miles to the east at Oldbury (Ward Perkins 1944, eg. fig. 12,1-2), Squerreyes Camp, Westerham (Philp 2005) and along the Darent Valley to the Thames and into Essex (eg. Philp 1984, Philp 2010 and Drury 1978).

While the use of glauconitic sandy fabrics has occasionally been recognised from the Earliest Iron Age and continued into the Late Iron Age, particularly along the Medway Valley (Thompson 1982, 7; Jones 2009), its association with the production of these S-profiled jars in the Middle Iron Age, has been singled out for comment. Petrological examination has shown that vessels with identical fabrics have been found from Little Waltham in Essex, Holwood, Birchington and Oldbury in Kent, and that these may well have been produced at a

---

<sup>1</sup> Luke Barber, pers comm.



single source (Peacock & Williams 1978). The evidence from Wrotham Quarry indicates that these vessels may well have been made in this fabric on or close to the site; but suggests little more than small scale local production rather than an industrial enterprise supplying settlements throughout west Kent and into Essex.

There was no direct evidence for how these vessels were used; but from the Middle Iron Age assemblage at Beechbrook Wood it is clear that at least some S-profiled jars in glauconitic sandy fabric were used for cooking (Jones 2006a, 32-33) as well as the coarser grained flint tempered vessels; and the same may well have applied here.

Within Linear Ditch 50 the remains of a cremation provided the radiocarbon dates in the range 390 – 171 cal BC. While the small sample makes interpretation extremely tentative, none of the pottery from the site need be later than this cremation and it is possible that this represents a termination event, marking the abandonment of the site.

## **THE MEDIEVAL POTTERY**

(Luke Barber)

### **Results from Phase 1: 2009 -11**

The archaeological work recovered 36 sherds of medieval pottery weighing 239g. With the exception of one unstratified sherd, the assemblage was all recovered from pit [22], fill (20) (32/214g) and pit [24], fill (23) (3/19g).

Although the stratified sherds vary in size from small (< 20mm across) to large (> 60mm across) none show significant signs of abrasion suggesting the material has not been subjected to reworking.

The assemblage is totally dominated by sand and shell tempered ware (31 sherds weighing 221g) though only two vessels appear to be represented. These consist of a cooking pot with triangular profile club rim and a bowl with slightly thickened down-turned rim. Both vessels are fired grey-brown.

Although sand and shell tempered wares have a wide chronological range on the Weald the sparse nature of the sand in the current vessels, their relatively low firing and rim forms would suggest a date between c. 1175 and 1250. Two sherds of shell tempered ware, containing no/negligible sand, are also present (9g). Although undoubtedly made at the same production sites these wares are not likely to have continued beyond c. 1200. The only other pottery from (20) consists of two small sherds (4g) of fine/medium sand tempered greywares. Unfortunately both consist of undiagnostic body sherds.

The sources of the pottery are impossible to be certain of - although sand/shell tempered wares are known to have been produced near Ashford (Grove 1952) their widespread distribution clearly indicates other centres were producing such vessels in Kent, Sussex and Surrey (Cotter 2002; Streeten 1985; Jones 1998). The sandy greywares could again be from a number of production sites though a Surrey source is considered the most likely considering the location of the current site.

The only unstratified medieval pottery consists of a heavily abraded oxidized medium sand tempered cooking pot bodysherd. This is likely to be of mid/late 13<sup>th</sup>- to mid 14<sup>th</sup>- century date.

### **Results from Phase 2: 2012 -13**

The archaeological work recovered 88 sherds of medieval pottery, weighing 891g, from 15 individually numbered contexts. An estimated 49 different vessels are represented. The assemblage was recovered from a number of pits and ditches across the excavated area, though there was a marked concentration in the northern and eastern areas. Condition of the pottery is variable: although the tendency is towards small sherds (up to 30mm across), a few medium to large sherds are also present (i.e. to 110mm across). Equally, weathering/abrasion is variable, with both slightly abraded and quite fresh sherds being present. As such it is probable that most of the assemblage has not been notably reworked to any great degree.

The assemblage was divided into different fabric groups based on tempering agent and finish with the aid of a x20 magnification hand-lens. The assemblage was then recorded by fabric and form per context using the mediums of sherd count, weight and estimated number

of vessels. This data was recorded on pro forma and duly entered into an excel spreadsheet for the archive. The fabric types and their relative quantities are given in Table 4.

Table 4: Post-Roman pottery assemblage

Code	Fabric	No	Weight	Estimated number of vessels
SS1	Medium/coarse sand with moderate/abundant shell	14	65g	Cooking pots x5
SS2	Medium sand with sparse/common shell	45	526g	Cooking pots x19; Curfew x1
Q1	Medium sand with rare calcareous inclusions	10	79g	Cooking pot x5; Jug x1; unknown x3
Q2	Medium sand with moderate black iron oxide grains	3	40g	Cooking pots x2; Jug x1
Q3	Fine/medium sand with common red iron oxides (Earlswood type)	1	2g	Unknown x1
Q4	Fine/medium sand with rare calcareous inclusions (finer version of Q1)	3	53g	Cooking pots x2; Jug x1
Q5	Fine/medium well-sorted sandy greyware (fine Limpsfield type)	10	113g	Jugs x6; unknown x1
Q6	Ill-sorted fine/medium sand with common black iron oxide grains to 1mm	2	13g	Jug x1

The earliest material appears to be the SS1 sherds, that could be of the later 12<sup>th</sup> or early 13<sup>th</sup> centuries. However, considering the chronological spread of the other material these sherds may be later in this range. The assemblage is totally dominated by the SS2 fabric. Although sand and shell tempered wares have a wide chronological range in the Weald, the sparse nature of the sand in the current vessels, their medium firing and rim forms would suggest a date between c. 1200 and 1275. Cooking pots typically dominate, usually with quite developed flat-topped expanded rims (Cat. Nos 1 and 2). However, at least one curfew also appears to be represented (Cat. 3). Decoration is absent though a couple of vessels have applied thumbed strips. Although sand/shell tempered wares are known to have been produced near Ashford (Grove and Warhurst 1952) their widespread distribution clearly indicates other centres were producing such vessels in Kent, Sussex and Surrey (Cotter 2002; Streeten 1985; Jones 1998).

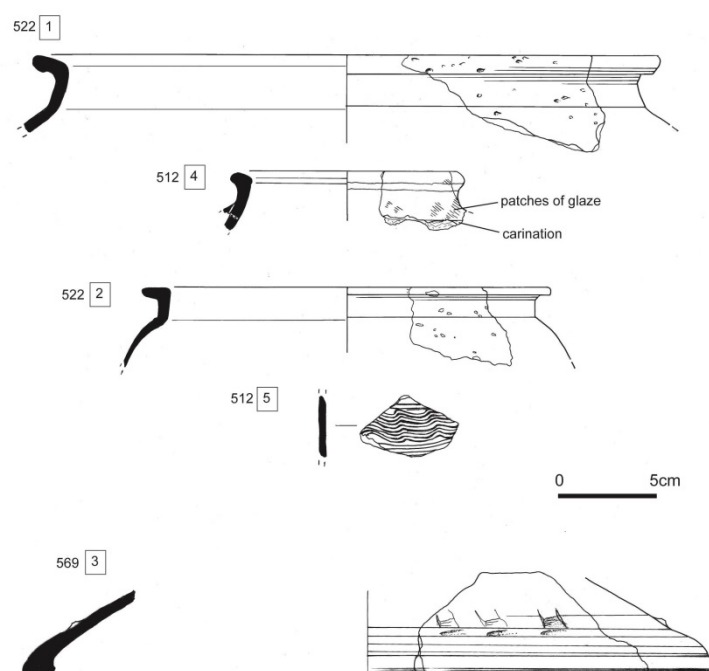
The remaining sherds fall into one of six sand tempered fabrics (Q1-6, Table 4), most of which are not particularly distinctive of source. Although cooking pots are represented in some of these fabrics, it is quite clear they supplied jugs to complement the contemporary SS2 wares. Many of these jugs are unglazed and quite crude but some decorated vessels are also represented, including one Q6 jug with green glaze (context [557]), one with white slip under a green glaze (Cat. No. 4) and at least three unglazed Q5 vessels with combed decoration (eg Cat. No. 5). All of the sandy wares are of local origin, with the Q3 sherd probably deriving from the 13<sup>th</sup>- century Earlswood kiln (context [510]. Turner 1974) and the

Q5 vessels from the Limpsfield area kilns where combed decoration is quite common (Ketteringham1989; Hayman 1997).

Context groups are generally small and lacking in feature sherds. The assemblages do not show any marked chronological variation with the sand/shell fabrics virtually always being in association with the sandy types. Taken as a whole the assemblage appears to represent a relatively short-lived period of activity between 1200 and 1275/1300. There is nothing to suggest anything more than a low/middle status domestic household is represented, but the quantities and condition of the pottery would indicate the main occupation to be quite close to the excavated area.

#### Catalogue (Figure 2)

1. Cooking pot with expanded rim. Light grey core with dark grey surfaces. SS2. (Ditch [521], fill [522]).
2. Cooking pot with expanded rim. Dull orange core with dark grey/black surfaces. SS2. (Ditch [521], fill [522]).
3. Curfew with thickened stabbed rim and oblique applied thumbed strips on its body. Mid grey core, dull red orange margins and dark grey surfaces. Internally sooted. (Ditch [570], fill [569]).
4. Jug with club rim. Mid grey core, orange/grey margins and light grey/buff surfaces. The external white slip has been applied before the handle was attached, the whole then being green glazed. Q4. (Ditch [513], fill [512]).
5. Unglazed jug bodysherd with wavy combing between horizontal combing. Dark grey core with mid grey surfaces. Q5. (Ditch [513], fill [512]).



**Figure 2 medieval (Norman) pottery @ 1/4 scale**

## Bibliography

- Cotter, J. 2002. 'Medieval Shelly Wares in Kent: a summary of recent research' in *Canterbury's Archaeology 1999-2000*. Canterbury Archaeological Trust, Canterbury. 56-60.
- Grove, L. and Warhurst, A. 1952. 'A 13th century Kiln site at Ashford' *Arch. Cant.* 65, 174-193.
- Hayman, G. 1997. The Excavation of two medieval pottery kiln sites and two sections through the London-Lewes Roman road at Clacket Lane, near Titsey, 1992, *Surrey Archaeological Collections* 84, 1-87.
- Jones, P. 1998. 'Towards a type series of Medieval pottery in Surrey' *Surrey Arch. Coll.* 85, 211-238.
- Ketteringham, L. 1989. 'Two medieval pottery kilns at Limpsfield Chart' in *Surrey Arch. Coll.* 79, 125-145.
- Streeten, A. 1985. 'The Pottery' in J. Hare, *Battle Abbey: the eastern range and excavations of 1978-80*. HBMCE Archaeological Report 2, 103-126.
- Turner, D. J. 1974. Medieval pottery kiln at Bushfield Shaw, Earlswood: interim report, in *Surrey Arch. Collect.* 70, 47-55.

Context	Fabric	Form	Decoration	Rim	No.	Weight	MNV	Comments	Draw
506	SS2	CP		expanded	3	20	1	redu. Fresh	
510 surface	SS1	CP			3	10	1	redu. Worn	
510 surface	SS2	CP		simple	5	25	2	redu. Some worn	
510 surface	Q1	CP			2	35	2	ox bro ba	
510 surface	Q2	CP			2	13	2	bss	
510	SS2	CP		expanded	3	36	1	redu. Fresh	
510	Q1	JUG			1	11	1	redu. Worn	
510	Q2	JUG		squared simple	1	27	1	slashed strap ha. Worn	
510	Q3 EARL	?			1	2	1	ox bro ba	
510	B. CLAY							3/10g silty amorphous	
512	SS2	CP	x1 APTS	expanded	15	126	4	some wear	
512	Q1	?			3	7	2	grey. Worn	
512	Q4	CP		hooked	1	19	1	grey. Worn	
512	Q4	JUG	Gr gl ext over WS	triangular club	1	17	1	buff	1
512	Q5	?			2	14	1	off-white surfaces	
512	Q5	JUG	x1 COMB wavy lines	collared	3	26	2	redu grey	1
518	SS2	CP			1	2	1	worn	
520	SS2	CP			1	12	1	redu bas	
522	SS2	CP		expanded	6	133	3	redu	2
522	Q1	CP			2	7	2	ox. Worn	
522	Q5	JUG	COMB hor & obliq		1	9	1		
524	SS2	CP			2	6	2	worn	
524	Q1	CP			1	15	1	worn	
526	SS1	CP			3	19	1	ox. Low fired. Poss earlier	
526	SS2	CP			1	26	1	ox. Worn	
526	B. CLAY							1/7g amorphous	
529	SS2	CP		hooked	2	21	1		
529	Q5	JUG	x1 reduced stabbed strap ha; x1 rilled (grey), x1 INC dec	upright collared	4	64	3	some poss fine Limpsfield	
531		FCF						4/93g	
531		Tile						intru EPM peg tile 1/6g	
531	SS1	CP			5	20	1	redu	
531	SS2	CP		Expanded	3	30	1		
531	Q1	?			1	4	1	ox	
531	Q4	CP	APTS		1	17	1	worn	
547	SS1	CP			2	11	1	worn	
547	SS2	CP			1	2	1	redu	
547	B. CLAY							1/3g	
557	Q6	JUG	Gr gl ext		1	8	1	ox	
557	B. CLAY							or tile chips 4/5g discarded	
560	Q6	JUG	Gr gl ext		1	5	0	Conjoin [557]	
560	Tile							intru EPM peg tile 1/9g	
569	SS2	CUR F?	Stabbed rim, APTS	Thickened	2	87	1	redu. Sooted interior	1
618	SS1	CP			1	5	1	redu	